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**

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

For the quarterly period ended September 30, 2019

Commission File Number: 001-35385

STERLING BANCORP

(Exact Name of Registrant as Specified in its Charter)

Delaware	**80-0091851**
(State or Other Jurisdiction of Incorporation or Organization)	(IRS Employer ID No.)
400 Rella Boulevard, Montebello, New York	**10901**
(Address of Principal Executive Office)	(Zip Code)

(845) 369-8040
(Registrant's Telephone Number including area code)

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	STL	New York Stock Exchange
Depositary Shares, each representing 1/40 interest in a share of 6.50% Non-Cumulative Perpetual Preferred Stock, Series A	STLPRA	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 twelve 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, if any, every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

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

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

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐ No ☒

Indicate the number of shares outstanding of each of the issuer’s classes of common stock, as of the latest practicable date.

Classes of Common Stock	Shares outstanding as of October 31, 2019
$0.01 per share	202,046,172

STERLING BANCORP AND SUBSIDIARIES
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Part I - FINANCIAL INFORMATION
Item 1. Financial Statements

STERLING BANCORP AND SUBSIDIARIES
Consolidated Balance Sheets (Unaudited)
(Dollars in thousands, except share and per share data)

	September 30, 2019	December 31, 2018
ASSETS:		
Cash and due from banks	$ 545,603	$ 438,110
Securities:		
Available for sale, at fair value	3,061,419	3,870,563
Held to maturity, at amortized cost (fair value of $2,061,887 and $2,740,522 at September 30, 2019 and December 31, 2018, respectively)	1,985,592	2,796,617
Total securities	5,047,011	6,667,180
Loans held for sale	4,627	1,565,979
Portfolio loans	20,830,163	19,218,530
Allowance for loan losses	(104,735)	(95,677)
Portfolio loans, net	20,725,428	19,122,853
Federal Home Loan Bank (“FHLB”) and Federal Reserve Bank (“FRB”) stock, at cost	276,929	369,690
Accrued interest receivable	104,881	107,111
Premises and equipment, net	238,723	264,194
Goodwill	1,657,814	1,613,033
Other intangible assets, net	115,149	129,545
Bank owned life insurance (“BOLI”)	609,720	653,995
Other real estate owned	13,006	19,377
Other assets	738,774	432,240
Total assets	$ 30,077,665	$ 31,383,307
LIABILITIES AND STOCKHOLDERS’ EQUITY		
LIABILITIES:		
Deposits	$ 21,579,324	$ 21,214,148
FHLB borrowings	2,800,907	4,838,772
Repurchase agreements	26,544	21,338
Senior Notes	173,652	181,130
Subordinated Notes	173,121	172,943
Mortgage escrow funds	84,595	72,891
Other liabilities	718,555	453,232
Total liabilities	25,556,698	26,954,454
Commitments and Contingent liabilities (See Note 17. “Commitments and Contingencies”)		
STOCKHOLDERS’ EQUITY:		
Preferred stock (par value $0.01 per share; 10,000,000 shares authorized; 135,000 shares issued and outstanding at September 30, 2019 and December 31, 2018)	137,799	138,423
Common stock (par value $0.01 per share; 310,000,000 shares authorized at September 30, 2019 and December 31, 2018; 229,872,925 shares issued at September 30, 2019 and December 31, 2018; 202,392,884 and 216,227,852 shares outstanding at September 30, 2019 and December 31, 2018, respectively)	2,299	2,299
Additional paid-in capital	3,762,046	3,776,461
Treasury stock, at cost (27,480,041 shares at September 30, 2019 and 13,645,073 shares at December 31, 2018)	(501,814)	(213,935)
Retained earnings	1,075,503	791,550
Accumulated other comprehensive income (loss), net of tax expense (benefit) of $17,239 at September 30, 2019 and $(25,429) at December 31, 2018	45,134	(65,945)
Total stockholders’ equity	4,520,967	4,428,853
Total liabilities and stockholders’ equity	$ 30,077,665	$ 31,383,307

See accompanying notes to consolidated financial statements.

STERLING BANCORP AND SUBSIDIARIES
Consolidated Income Statements (Unaudited)
(Dollars in thousands, except share and per share data)

	Three months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Interest and dividend income:				
Loans and loan fees	$ 254,414	$ 257,211	$ 772,992	$ 746,079
Securities taxable	21,977	29,765	74,456	85,856
Securities non-taxable	13,491	15,244	42,771	45,959
Other earning assets	5,327	6,805	16,847	17,382
Total interest and dividend income	295,209	309,025	907,066	895,276
Interest expense:				
Deposits	48,330	35,974	142,454	88,645
Borrowings	23,558	29,102	73,946	82,098
Total interest expense	71,888	65,076	216,400	170,743
Net interest income	223,321	243,949	690,666	724,533
Provision for loan losses	13,700	9,500	35,400	35,500
Net interest income after provision for loan losses	209,621	234,449	655,266	689,033
Non-interest income:				
Deposit fees and service charges	6,582	6,333	19,891	20,319
Accounts receivable management / factoring commissions and other fees	6,049	5,595	17,265	16,292
Bank owned life insurance	8,066	3,733	15,900	11,591
Loan commissions and fees	6,285	4,142	15,431	12,114
Investment management fees	1,758	1,943	5,708	5,889
Net gain (loss) on sale of securities	6,882	(56)	(6,830)	(5,902)
Gain on termination of pension plan	12,097	—	12,097	—
Gain on sale of fixed assets	—	—	—	11,800
Gain on sale of residential mortgage loans	—	—	8,313	—
Other	4,111	2,455	10,710	8,617
Total non-interest income	51,830	24,145	98,485	80,720
Non-interest expense:				
Compensation and benefits	52,850	54,823	163,313	165,662
Stock-based compensation plans	4,565	3,115	14,293	9,304
Occupancy and office operations	15,836	16,558	48,477	51,956
Information technology	8,545	10,699	26,267	32,412
Amortization of intangible assets	4,785	5,865	14,396	17,782
FDIC insurance and regulatory assessments	3,194	6,043	9,526	16,885
Other real estate owned expense, net	79	1,497	754	1,635
Charge for asset write-downs, retention and severance	—	—	3,344	13,132
Impairment related to financial centers and real estate consolidation strategy	—	—	14,398	—
Other	16,601	13,173	53,619	39,680
Total non-interest expense	106,455	111,773	348,387	348,448
Income before income tax expense	154,996	146,821	405,364	421,305
Income tax expense	32,549	27,171	85,020	88,542
Net income	122,447	119,650	320,344	332,763
Preferred stock dividend	1,982	1,993	5,958	5,988
Net income available to common stockholders	$ 120,465	$ 117,657	$ 314,386	$ 326,775
Weighted average common shares:				
Basic	203,090,365	225,088,511	207,685,051	224,969,121
Diluted	203,566,582	225,622,895	208,108,575	225,504,463

Earnings per common share:				
Basic	$ 0.59	$ 0.52	$ 1.51	$ 1.45
Diluted	0.59	0.52	1.51	1.45

See accompanying notes to consolidated financial statements.

STERLING BANCORP AND SUBSIDIARIES

Consolidated Statements of Comprehensive Income (Unaudited)

(Dollars in thousands)

	Three months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Net income	$ 122,447	$ 119,650	$ 320,344	$ 332,763
Other comprehensive income (loss), before tax:				
Change in unrealized holding gains (losses) on securities available for sale	29,085	(27,083)	168,592	(128,496)
Unrealized loss on transfer of securities held to maturity to available for sale	—	—	(11,813)	—
Reclassification adjustment for net realized (gains) losses included in net income	(6,882)	56	6,830	5,902
Accretion of net unrealized loss on securities transferred to held to maturity	119	225	2,658	686
Change in the actuarial loss of defined benefit plan and post-retirement benefit plans	(15,706)	415	(12,757)	1,150
Total other comprehensive income (loss), before tax	6,616	(26,387)	153,510	(120,758)
Deferred tax (expense) benefit related to other comprehensive (loss) income	(1,828)	7,293	(42,431)	33,378
Other comprehensive income (loss), net of tax	4,788	(19,094)	111,079	(87,380)
Comprehensive income	$ 127,235	$ 100,556	$ 431,423	$ 245,383

See accompanying notes to consolidated financial statements.

STERLING BANCORP AND SUBSIDIARIES

Consolidated Statements of Changes in Stockholders' Equity (Unaudited)

(Dollars in thousands, except share and per share data)

	Number of common shares	Preferred stock	Common stock	Additional paid-in capital	Treasury stock	Retained earnings	Accumulated other comprehensive (loss)	Total stockholders' equity
Balance at January 1, 2018	224,782,694	$ 139,220	$ 2,299	$3,780,908	$ (58,039)	$ 401,956	$ (26,166)	$ 4,240,178
Net income	—	—	—	—	—	98,872	—	98,872
Other comprehensive (loss)	—	—	—	—	—	—	(47,749)	(47,749)
Stock options & other stock transactions, net	28,794	—	—	2	375	(46)	—	331
Restricted stock awards, net	654,778	—	—	(14,630)	6,562	8,078	—	10
Cash dividends declared ($0.07 per common share)	—	—	—	—	—	(15,693)	—	(15,693)
Cash dividends declared ($16.25 per preferred share)	—	(195)	—	—	—	(1,999)	—	(2,194)
Reclassification of the stranded income tax effects from the enactment of the Tax Cuts and Jobs Act from accumulated other comprehensive (loss)	—	—	—	—	—	5,129	(5,129)	—
Balance at March 31, 2018	225,466,266	139,025	2,299	3,766,280	(51,102)	496,297	(79,044)	4,273,755
Net income	—	—	—	—	—	114,241	—	114,241
Other comprehensive (loss)	—	—	—	—	—	—	(20,537)	(20,537)
Stock options & other stock transactions, net	7,500	—	—	2	91	(18)	—	75
Restricted stock awards, net	(3,512)	—	—	3,223	(258)	168	—	3,133
Cash dividends declared ($0.07 per common share)	—	—	—	—	—	(15,739)	—	(15,739)
Cash dividends declared ($16.25 per preferred share)	—	(197)	—	—	—	(1,996)	—	(2,193)
Balance at June 30, 2018	225,470,254	138,828	2,299	3,769,505	(51,269)	592,953	(99,581)	4,352,735
Net income	—	—	—	—	—	119,650	—	119,650
Other comprehensive (loss)	—	—	—	—	—	—	(19,094)	(19,094)
Stock options & other stock transactions, net	13,500	—	—	2	164	(10)	—	156
Restricted stock awards, net	(37,665)	—	—	3,657	(868)	—	—	2,789
Cash dividends declared ($0.07 per common share)	—	—	—	—	—	(15,739)	—	(15,739)
Cash dividends declared ($16.25 per preferred share)	—	(201)	—	—	—	(1,993)	—	(2,194)
Balance at September 30, 2018	225,446,089	$ 138,627	$ 2,299	$3,773,164	$ (51,973)	$ 694,861	$ (118,675)	$ 4,438,303

STERLING BANCORP AND SUBSIDIARIES

Consolidated Statements of Changes in Stockholders' Equity (Unaudited)

(Dollars in thousands, except share and per share data)

	Number of common shares	Preferred stock	Common stock	Additional paid-in capital	Treasury stock	Retained earnings	Accumulated other comprehensive (loss) income	Total stockholders' equity
Balance at January 1, 2019	216,227,852	$ 138,423	$ 2,299	$3,776,461	$ (213,935)	$ 791,550	$ (65,945)	$ 4,428,853
Net income	—	—	—	—	—	101,437	—	101,437
Other comprehensive income	—	—	—	—	—	—	59,335	59,335
Stock options & other stock transactions, net	3,893	—	—	—	49	6	—	55
Restricted stock awards, net	1,331,674	—	—	(24,626)	12,818	12,913	—	1,105
Cash dividends declared ($0.07 per common share)	—	—	—	—	—	(15,079)	—	(15,079)
Cash dividends declared ($16.25 per preferred share)	—	(205)	—	—	—	(1,989)	—	(2,194)
Purchase of treasury stock	(8,002,595)	—	—	—	(154,289)	—	—	(154,289)
Balance at March 31, 2019	209,560,824	138,218	2,299	3,751,835	(355,357)	888,838	(6,610)	4,419,223
Net income	—	—	—	—	—	96,460	—	96,460
Other comprehensive income	—	—	—	—	—	—	46,956	46,956
Stock options & other stock transactions, net	168,169	—	—	—	1,410	424	—	1,834
Restricted stock awards, net	(39,697)	—	—	5,291	(887)	—	—	4,404
Cash dividends declared ($0.07 per common share)	—	—	—	—	—	(14,611)	—	(14,611)
Cash dividends declared ($16.25 per preferred share)	—	(207)	—	—	—	(1,987)	—	(2,194)
Purchase of treasury stock	(4,502,053)	—	—	—	(92,914)	—	—	(92,914)
Balance at June 30, 2019	205,187,243	138,011	2,299	3,757,126	(447,748)	969,124	40,346	4,459,158
Net income	—	—	—	—	—	122,447	—	122,447
Other comprehensive income	—	—	—	—	—	—	4,788	4,788
Stock options & other stock transactions, net	43,935	—	—	—	367	141	—	508
Restricted stock awards, net	(30,248)	—	—	4,920	(694)	78	—	4,304
Cash dividends declared ($0.07 per common share)	—	—	—	—	—	(14,305)	—	(14,305)
Cash dividends declared ($16.25 per preferred share)	—	(212)	—	—	—	(1,982)	—	(2,194)
Purchase of treasury stock	(2,808,046)	—	—	—	(53,739)	—	—	(53,739)
Balance at September 30, 2019	202,392,884	$ 137,799	$ 2,299	$3,762,046	$ (501,814)	$1,075,503	$ 45,134	$ 4,520,967

See accompanying notes to consolidated financial statements.

STERLING BANCORP AND SUBSIDIARIES
Consolidated Statements of Cash Flows (Unaudited)
(Dollars in thousands)

	Nine months ended September 30,	
	2019	2018
Cash flows from operating activities:		
Net income	$ 320,344	$ 332,763
Adjustments to reconcile net income to net cash provided by operating activities:		
Provisions for loan losses	35,400	35,500
Net (gain) from write-downs and sales of other real estate owned	(268)	(796)
Net (gain) on extinguishment of Senior Notes	(46)	—
Depreciation of premises and equipment	14,807	15,214
Impairment on fixed assets	10,751	—
Impairment of early termination of leases	3,647	—
Asset write-downs, retention and severance compensation and other restructuring charges	3,344	13,132
Income from termination of defined benefit pension plan	(12,079)	—
Amortization of intangible assets	14,396	17,782
Amortization of low income housing tax credits	12,510	3,732
Net loss on sale of securities	6,830	5,902
Net gain on loans held for sale	(8,313)	(25)
Net gain on sale of premises and equipment	—	(11,800)
Net amortization of premiums on securities	26,243	29,759
Amortization of premium on certificates of deposit	(2,977)	(4,850)
Net accretion of purchase discount and amortization of net deferred loan costs	(66,583)	(85,129)
Net accretion of debt issuance costs and amortization of premium on borrowings	(1,211)	(1,081)
Restricted stock compensation expense	14,293	9,299
Stock option compensation expense	—	5
Originations of loans held for sale	(4,500)	(52,919)
Proceeds from sales of loans held for sale	28,685	27,148
Increase in cash surrender value of bank owned life insurance	(15,900)	(11,591)
Deferred income tax expense	26,203	45,589
Other adjustments (principally net changes in other assets and other liabilities)	(62,280)	(79,631)
Net cash provided by operating activities	343,296	288,003
Cash flows from investing activities:		
Purchases of securities:		
Available for sale	(66,148)	(753,638)
Held to maturity	(10,214)	(140,976)
Proceeds from maturities, calls and other principal payments on securities:		
Available for sale	347,103	271,558
Held to maturity	93,729	135,327
Proceeds from sales of securities available for sale	1,386,236	117,810
Proceeds from sales of securities held to maturity	—	254
Portfolio loan originations, net	(975,741)	10,619
Portfolio loans purchased	—	(37,668)
Proceeds from sale of residential mortgage loans	1,409,334	—
Redemptions (purchases) of FHLB and FRB stock, net	92,761	(67,343)
Proceeds from sales of other real estate owned	10,749	16,786
Purchases of premises and equipment	(18,818)	(16,369)
Proceeds from bank owned life insurance	63,675	2,950
Proceeds from sale of premises and equipment	18,731	35,261

STERLING BANCORP AND SUBSIDIARIES
Consolidated Statements of Cash Flows (Unaudited)
(Dollars in thousands)

	Nine months ended September 30,	
	2019	2018
Purchases of low income housing tax credits	$ (63,495)	$ (3,655)
Cash paid for acquisition, net	(515,692)	(484,385)
Net cash provided by (used in) investing activities	1,772,210	(913,469)
Cash flows from financing activities:		
Net (decrease) increase in transaction, savings and money market deposits	(72,341)	786,541
Net increase in certificates of deposit	440,494	136,162
Net (decrease) in short-term FHLB borrowings	(987,000)	(555,000)
Advances of term FHLB borrowings	2,200,000	2,975,000
Repayments of term FHLB borrowings	(3,250,000)	(2,500,000)
Repayment of Senior Notes	(6,954)	(77,000)
Net increase (decrease) in other borrowings	5,206	(7,274)
Net increase (decrease) in mortgage escrow funds	11,704	(25,689)
Proceeds from stock option exercises	2,397	556
Treasury shares repurchased	(300,942)	—
Cash dividends paid - common stock	(43,995)	(47,171)
Cash dividends paid - preferred stock	(6,582)	(6,581)
Net cash (used in) provided by financing activities	(2,008,013)	679,544
Net decrease in cash and cash equivalents	107,493	54,078
Cash and cash equivalents at beginning of period	438,110	479,906
Cash and cash equivalents at end of period	$ 545,603	$ 533,984
Supplemental cash flow information:		
Interest payments	$ 211,758	$ 165,306
Income tax payments	44,968	23,445
Real estate acquired in settlement of loans	4,110	11,630
Residential mortgage loans transferred from held for sale to portfolio	127,883	
Securities held to maturity transferred to available for sale	708,627	—
Operating cash flows from operating leases	13,424	—
Right-of-use assets obtained in exchange for lease liabilities	113,985	—
Acquisitions:		
Non-cash assets acquired:		
Total loans, net	$ 471,878	$ 442,884
Accrued interest receivable	1,789	—
Goodwill	44,781	36,094
Premises and equipment, net	—	379
Other assets	545	7,071
Total non-cash assets acquired	518,993	486,428
Liabilities assumed:		
Other liabilities	3,301	4,884
Total liabilities assumed	3,301	4,884
Net non-cash assets acquired	515,692	481,544
Cash and cash equivalents received in acquisitions	—	20,508
Total consideration paid	$ 515,692	$ 502,052

See accompanying notes to consolidated financial statements.

(1) Basis of Financial Statement Presentation

(a) Nature of Operations

Sterling Bancorp (the “Company,” “we,” “us” and “our”) is a Delaware corporation, a bank holding company and a financial holding company headquartered in Montebello, New York that owns all of the outstanding shares of common stock of Sterling National Bank (the “Bank”), its principal subsidiary. The Bank is a full-service regional bank specializing in the delivery of services and solutions to business owners, their families and consumers within the communities it serves through teams of dedicated and experienced relationship managers.

(b) Basis of Presentation

The consolidated financial statements in this Quarterly Report on Form 10-Q include the accounts of the Company and all other entities in which the Company has a controlling financial interest. All significant intercompany balances and transactions have been eliminated in consolidation. The accounting and financial reporting policies we follow conform, in all material respects, to accounting principles generally accepted in the United States (“GAAP”) and to general practices within the banking industry, which include regulatory reporting instructions.

The consolidated financial statements in this Quarterly Report on Form 10-Q have not been audited by an independent registered public accounting firm, but, in the opinion of management, reflect all adjustments necessary for a fair presentation of our financial position and results of operations. All such adjustments were of a normal and recurring nature. The consolidated financial statements have been prepared in accordance with GAAP and with the instructions to Form 10-Q adopted by the Securities and Exchange Commission (the “SEC”). Accordingly, the financial statements do not include all of the information and footnotes required by GAAP for complete financial statements and should be read in conjunction with our consolidated financial statements, and notes thereto, for the year ended December 31, 2018, included in our Annual Report on Form 10-K, as filed with the SEC on March 1, 2019 (the “2018 Form 10-K”). Operating results for the interim periods disclosed herein are not necessarily indicative of the results that may be expected for a full year or any future period. Certain items in prior financial statements have been reclassified to conform to the current presentation. These reclassifications had no impact on previously reported net income.

(c) Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, income, expense and contingencies at the date of the financial statements. Actual results could differ significantly from these estimates, particularly the allowance for loan losses and the status of contingencies, and are subject to change.

(d) Adoption of New Accounting Standards

We adopted ASU No. 2016-02 *“Leases (Topic 842)”*, as of January 1, 2019, which requires lessees to recognize most leases on their balance sheets as a right-of-use asset with a corresponding lease liability. The standard included additional required qualitative and quantitative disclosures. We adopted the following practical expedients and elected the following accounting policies related to the leasing standard:

- Carry over of historical lease classifications and whether existing contracts contain leases;
- Current lease classification for existing leases;
- Short-term lease accounting policy, allowing us not to recognize right-of-use assets and liabilities for leases with a term of 12 months or less; and
- Lease and non-lease components are not separated for certain leases.

As of September 30, 2019, the adoption of this standard resulted in the recognition of right-of-use assets of $113,985 and a lease liability of $120,700, included in other assets and other liabilities, respectively, in the consolidated balance sheets. The standard did not have a significant impact on operating results or cash flows. See Note 9. “Leases” for additional information.

We adopted ASU 2017-12, *“Derivatives and Hedging (Topic 815) - Targeted Improvements to Accounting for Hedging Activities,”* (“ASU 2017-12”)*, as of January 1, 2019,* which amended the hedge accounting recognition and presentation requirements in ASC 815 to improve the transparency and understandability of information conveyed to financial statement users about an entity’s risk management activities to better align the entity’s financial reporting for hedging relationships with those risk management activities and to reduce the complexity of and simplify the application of hedge accounting. A provision in ASU 2017-12 provides that we may reclassify a debt security from held to maturity to available for sale at the time of adoption if the debt security is eligible to be hedged under the last-of-layer method in accordance ASU 2017-12. Generally, this includes debt securities that are pre-payable,

including mortgage-backed securities, and debt securities that are callable by the issuer, which are applicable to many of our state and municipal debt securities. We transferred held to maturity securities with a book value of $720,440 and a fair value of $708,627 at December 31, 2018 to available for sale effective January 1, 2019. See Note 3. “Securities” for additional information.

(2) Acquisitions

Commercial loan portfolio and origination platform acquired from Woodforest National Bank (“Woodforest”)
On February 28, 2019, the Bank acquired a commercial loan portfolio consisting of equipment finance loans and leases and asset-based lending loans from Woodforest (the “Woodforest Acquisition”). In addition, the Bank obtained sales and relationship management and business development personnel based in Novi, Michigan, who will continue to originate new loans and leases. The total consideration paid in cash at closing was $515,692. We acquired $166,143 of equipment finance loans, which are mainly fixed rate loans, and $331,842 of asset-based lending loans, which are mainly variable rate loans. The fair value of these loans was $471,878 at the time of acquisition. The Bank paid a premium of 3.75% on the unpaid principal balance of the loans or $18,674. The transaction was accounted for as a business combination. We recorded a $3,344 restructuring charge consisting mainly of professional fees, severance, retention, systems integration expense and facilities consolidation, which is included in charge for asset write-downs, retention and severance on the consolidated income statement. The acquired loans and origination platform have been fully integrated into our equipment finance and asset-based lending business lines.

Acquisition of Advantage Funding Management Co., Inc. (“Advantage Funding”)
On April 2, 2018, the Bank acquired 100% of the outstanding common stock of Advantage Funding (the “Advantage Funding Acquisition”). The total consideration in the transaction was $502,052 and was paid in cash on the closing date. Advantage Funding was a provider of commercial vehicle and transportation financing services based in Lake Success, New York. Advantage Funding had total outstanding loans and leases of $457,638 on the acquisition date consisting mainly of fixed rate assets. The fair value of these loans was $439,622. The Bank paid a premium on the gross loans and leases receivable of 4.5% or $20,300. In the second quarter of 2018, we recorded a $4,396 restructuring charge consisting mainly of professional fees, severance, retention, systems integration expense and facilities consolidation, which is included in charge for asset write-downs, retention and severance on the consolidated income statement. The Advantage Funding Acquisition is consistent with our strategy of growing commercial loans and increasing the proportion of commercial loans in our loan portfolio. The operations of the business were fully integrated into our equipment finance business line.

(3) Securities

A summary of amortized cost and estimated fair value of securities as of September 30, 2019 is presented below. The term “MBS” refers to mortgage-backed securities and the term “CMOs” refers to collateralized mortgage obligations. Both of these terms are further defined in Note 18. “Fair Value Measurements”.

	September 30, 2019							
	Available for Sale				Held to Maturity			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrecognized gains	Gross unrecognized losses	Fair value
Residential MBS:								
Agency-backed	$ 1,581,246	$ 22,923	$ (1,348)	$ 1,602,821	$ 177,153	$ 1,983	$ (92)	$ 179,044
CMOs/Other MBS	528,495	8,924	(45)	537,374	—	—	—	—
Total residential MBS	2,109,741	31,847	(1,393)	2,140,195	177,153	1,983	(92)	179,044
Other securities:								
Federal agencies	156,815	6,082	—	162,897	59,374	857	—	60,231
Corporate	292,064	12,880	(171)	304,773	19,917	474	—	20,391
State and municipal	442,946	10,959	(351)	453,554	1,716,398	73,155	(141)	1,789,412
Other	—	—	—	—	12,750	158	(99)	12,809
Total other securities	891,825	29,921	(522)	921,224	1,808,439	74,644	(240)	1,882,843
Total securities	$ 3,001,566	$ 61,768	$ (1,915)	$ 3,061,419	$ 1,985,592	$ 76,627	$ (332)	$ 2,061,887

A summary of securities classified as held to maturity at December 31, 2018 that were transferred to available for sale effective January 1, 2019 is presented below.

	Amortized cost	Fair value
Residential MBS:		
Agency-backed	$ 125,343	$ 121,510
CMOs/Other MBS	27,780	27,017
Total residential MBS	153,123	148,527
Other securities:		
Corporate	49,001	48,607
State and municipal	518,316	511,493
Total of securities transferred from held to maturity to available for sale	$ 720,440	$ 708,627

A summary of amortized cost and estimated fair value of securities as of December 31, 2018 is presented below:

	December 31, 2018							
	Available for Sale				Held to Maturity			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrecognized gains	Gross unrecognized losses	Fair value
Residential MBS:								
Agency-backed	$ 2,328,870	$ 2,347	$ (62,366)	$ 2,268,851	$ 318,590	$ 73	$ (8,605)	$ 310,058
CMOs/Other MBS	596,868	11	(22,109)	574,770	27,780	2	(765)	27,017
Total residential MBS	2,925,738	2,358	(84,475)	2,843,621	346,370	75	(9,370)	337,075
Other securities:								
Federal agencies	283,825	—	(9,852)	273,973	59,065	160	(128)	59,097
Corporate	537,210	1,162	(10,407)	527,965	68,512	431	(392)	68,551
State and municipal	227,546	302	(2,844)	225,004	2,305,420	2,654	(49,562)	2,258,512
Other	—	—	—	—	17,250	49	(12)	17,287
Total other securities	1,048,581	1,464	(23,103)	1,026,942	2,450,247	3,294	(50,094)	2,403,447
Total securities	$ 3,974,319	$ 3,822	$ (107,578)	$ 3,870,563	$ 2,796,617	$ 3,369	$ (59,464)	$ 2,740,522

The amortized cost and estimated fair value of securities at September 30, 2019 are presented below by contractual maturity. Actual maturities may differ from contractual maturities because issuers may have the right to call or prepay obligations. Residential MBS are shown separately since they are not due at a single maturity date.

	September 30, 2019			
	Available for sale		Held to maturity	
	Amortized cost	Fair value	Amortized cost	Fair value
Remaining period to contractual maturity:				
One year or less	$ 12,433	$ 12,398	$ 34,943	$ 35,146
One to five years	102,874	105,669	90,004	91,778
Five to ten years	598,960	620,601	281,286	292,768
Greater than ten years	177,558	182,556	1,402,206	1,463,151
Total securities with a stated maturity date	891,825	921,224	1,808,439	1,882,843
Residential MBS	2,109,741	2,140,195	177,153	179,044
Total securities	$ 3,001,566	$ 3,061,419	$ 1,985,592	$ 2,061,887

Sales of securities for the periods indicated below were as follows:

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
Available for sale:				
Proceeds from sales	$ 647,485	$ —	$ 1,386,236	$ 117,810
Gross realized gains [1]	7,815	—	12,170	82
Gross realized losses [1]	(933)	(3)	(19,000)	(5,910)
Income tax expense (benefit) on realized net gains / losses	1,445	(1)	(1,434)	(1,224)
Held to maturity: [2]				
Proceeds from sale	$ —	$ —	$ —	$ 254
Gross realized losses [1]	—	(53)	—	(74)
Income tax expense on realized loss	—	(11)	—	(15)

[1] Gross realized gains and losses include securities called prior to maturity.
[2] In the nine months ended September 30, 2018, the Company sold a security that was held to maturity due to a decline in the credit rating and other evidence of deterioration of the issuer's creditworthiness.

We adopted ASU 2017-12, *"Derivatives and Hedging (Topic 815) - Targeted Improvements to Accounting for Hedging Activities," as of January 1, 2019,* which allowed us to reclassify a debt security from held to maturity to available for sale if the debt security is eligible to be hedged under the last-of-layer method in accordance with ASU 2017-12. Generally, this included debt securities that are pre-payable, including mortgage-backed securities, and debt securities that are callable by the issuer, which are applicable to many of our state and municipal debt securities. We transferred held to maturity securities with a book value of $720,440 and a fair value of $708,627 at December 31, 2018 to available for sale effective January 1, 2019. In the first quarter of 2019, we sold securities with a book value of $751,935 to raise liquidity for the Woodforest Acquisition, and to reduce lower yielding securities as a percentage of total assets.

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

The following table summarizes securities available for sale with unrealized losses, segregated by the length of time in a continuous unrealized loss position for the periods presented below:

	Continuous unrealized loss position					
	Less than 12 months		12 months or longer		Total	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Available for sale						
September 30, 2019						
Residential MBS:						
Agency-backed	$ 211,025	$ (512)	$ 110,298	$ (836)	$ 321,323	$ (1,348)
CMOs/Other MBS	—	—	5,991	(45)	5,991	(45)
Total residential MBS	211,025	(512)	116,289	(881)	327,314	(1,393)
Other securities:						
Corporate	2,008	(29)	15,588	(142)	17,596	(171)
State and municipal	25,073	(296)	3,779	(55)	28,852	(351)
Total other securities	27,081	(325)	19,367	(197)	46,448	(522)
Total securities	$ 238,106	$ (837)	$ 135,656	$ (1,078)	$ 373,762	$ (1,915)
December 31, 2018						
Residential MBS:						
Agency-backed	$ 156,787	$ (536)	$ 1,955,056	$ (61,830)	$ 2,111,843	$ (62,366)
CMOs/Other MBS	94	(2)	574,053	(22,107)	574,147	(22,109)
Total residential MBS	156,881	(538)	2,529,109	(83,937)	2,685,990	(84,475)
Other securities:						
Federal agencies	—	—	273,973	(9,852)	273,973	(9,852)
Corporate	230,126	(4,278)	119,869	(6,129)	349,995	(10,407)
State and municipal	16,172	(64)	175,966	(2,780)	192,138	(2,844)
Total other securities	246,298	(4,342)	569,808	(18,761)	816,106	(23,103)
Total securities	$ 403,179	$ (4,880)	$ 3,098,917	$ (102,698)	$ 3,502,096	$ (107,578)

The following table summarizes securities held to maturity with unrecognized losses, segregated by the length of time in a continuous unrecognized loss position for the periods presented below:

	Continuous unrecognized loss position					
	Less than 12 months		12 months or longer		Total	
	Fair value	Unrecognized losses	Fair value	Unrecognized losses	Fair value	Unrecognized losses
Held to maturity						
September 30, 2019						
Residential MBS:						
Agency-backed	$ 36,823	$ (80)	$ 1,751	$ (12)	$ 38,574	$ (92)
Other securities:						
State and municipal	3,001	(3)	8,359	(138)	11,360	(141)
Other	9,901	(99)	—	—	9,901	(99)
Total other securities	12,902	(102)	8,359	(138)	21,261	(240)
Total securities	$ 49,725	$ (182)	$ 10,110	$ (150)	$ 59,835	$ (332)
December 31, 2018						
Residential MBS:						
Agency-backed	$ 25,003	$ (147)	$ 273,974	$ (8,458)	$ 298,977	$ (8,605)
CMOs/Other MBS	101	(2)	25,066	(763)	25,167	(765)
Total residential MBS	25,104	(149)	299,040	(9,221)	324,144	(9,370)
Other securities:						
Federal agencies	29,485	(95)	4,908	(33)	34,393	(128)
Corporate	21,859	(137)	16,261	(255)	38,120	(392)
State and municipal	118,389	(877)	1,897,758	(48,685)	2,016,147	(49,562)
Other	9,488	(12)	—	—	9,488	(12)
Total other securities	179,221	(1,121)	1,918,927	(48,973)	2,098,148	(50,094)
Total securities	$ 204,325	$ (1,270)	$ 2,217,967	$ (58,194)	$ 2,422,292	$ (59,464)

At September 30, 2019, a total of 142 available for sale securities were in a continuous unrealized loss position for less than 12 months and 44 available for sale securities were in a continuous unrealized loss position for 12 months or longer. At September 30, 2019, a total of 10 held to maturity securities were in a continuous unrealized loss position for less than 12 months and 48 held to maturity securities were in a continuous unrealized loss position for 12 months or longer. Declines in the fair value of held to maturity and available for sale securities below their cost that are deemed to be other than temporary are reflected in earnings as realized losses to the extent the impairment is related to credit losses. The amount of the impairment related to other factors is recognized in other comprehensive income. In estimating other than temporary impairment (“OTTI”) losses, management considers, among other things: (i) the length of time and the extent to which the fair value has been less than cost; (ii) the financial condition and near-term prospects of the issuer; and (iii) our intent and ability to retain the investment in the issuer for a period of time sufficient to allow for any anticipated recovery in cost.

Management has the ability and intent to hold the securities classified as held to maturity in the table above until they mature, at which time we anticipate we will receive full value for the securities. Furthermore, as of September 30, 2019, management did not have the intent to sell any of the securities classified as available for sale in the table above and believes that it is more likely than not that we will not have to sell any such securities before a recovery of cost. Any unrealized losses are largely due to increases in market interest rates over the yields available at the time the underlying securities were purchased. The fair value is expected to recover as the securities approach their maturity date or repricing date or if market yields for such investments decline. Management does not believe any of the securities are impaired due to reasons related to credit quality. As of September 30, 2019, management believes the impairments detailed in the table above are temporary.

Securities pledged for borrowings at the FHLB and other institutions, and securities pledged for municipal deposits and other purposes, were as follows for the periods presented below:

	September 30, 2019	December 31, 2018
Available for sale securities pledged for borrowings, at fair value	$ 26,544	$ 12,206
Available for sale securities pledged for municipal deposits, at fair value	818,763	817,306
Held to maturity securities pledged for borrowings, at amortized cost	914	34,996
Held to maturity securities pledged for municipal deposits, at amortized cost	1,551,726	1,338,901
Total securities pledged	$ 2,397,948	$ 2,203,409

(4) Portfolio Loans

The composition of our total portfolio loans, which excludes loans held for sale, was the following for the periods presented below:

	September 30, 2019			December 31, 2018		
	Originated loans	Acquired loans	Total	Originated loans	Acquired loans	Total
Commercial:						
Commercial & Industrial ("C&I"):						
Traditional C&I	$ 2,318,325	$ 58,304	$ 2,376,629	$ 2,321,131	$ 75,051	$ 2,396,182
Asset-based lending	870,681	303,658	1,174,339	792,935	—	792,935
Payroll finance	209,210	—	209,210	227,452	—	227,452
Warehouse lending	1,457,232	—	1,457,232	782,646	—	782,646
Factored receivables	277,853	—	277,853	258,383	—	258,383
Equipment financing	893,255	281,459	1,174,714	913,751	301,291	1,215,042
Public sector finance	1,122,592	—	1,122,592	860,746	—	860,746
Total C&I	7,149,148	643,421	7,792,569	6,157,044	376,342	6,533,386
Commercial mortgage:						
Commercial real estate ("CRE")	4,806,054	392,353	5,198,407	4,154,956	487,461	4,642,417
Multi-family	1,932,464	2,846,968	4,779,432	1,527,619	3,236,505	4,764,124
Acquisition, development and construction ("ADC")	433,883	—	433,883	267,754	—	267,754
Total commercial mortgage	7,172,401	3,239,321	10,411,722	5,950,329	3,723,966	9,674,295
Total commercial	14,321,549	3,882,742	18,204,291	12,107,373	4,100,308	16,207,681
Residential mortgage	559,685	1,810,531	2,370,216	621,471	2,083,755	2,705,226
Consumer	133,384	122,272	255,656	153,811	151,812	305,623
Total portfolio loans	15,014,618	5,815,545	20,830,163	12,882,655	6,335,875	19,218,530
Allowance for loan losses	(104,735)	—	(104,735)	(95,677)	—	(95,677)
Total portfolio loans, net	$ 14,909,883	$ 5,815,545	$ 20,725,428	$ 12,786,978	$ 6,335,875	$ 19,122,853

Acquired loans at September 30, 2019 and December 31, 2018 include loans that were acquired in the following transactions: the Woodforest Acquisition; the Advantage Funding Acquisition; the merger with Astoria Financial Corporation ("Astoria") (the "Astoria Merger"); the merger with Hudson Valley Holding Corp. (the "HVB Merger"); and the merger between Provident New York Bancorp and legacy Sterling Bancorp (the "Provident Merger"). Under our credit administration and accounting policies, once a loan relationship reaches maturity and is re-underwritten, the loan is no longer considered an acquired loan and is included in originated loans. In addition, acquired performing loans that were subsequently subject to a credit evaluation, such as after designation as criticized or classified or placed on non-accrual since the acquisition date, are also included in originated loans.

Consistent with our credit and accounting policies, at September 30, 2019, there were $1,064,724 of loans with an allowance for loan loss reserve of $8,465 that were originally considered acquired loans but have since migrated to the originated loans portfolio as they have reached maturity, were re-underwritten, have been designated as criticized or classified or have been placed on non-accrual since the acquisition date. At December 31, 2018, there were $1,365,682 of loans with an allowance for loan loss reserve of $9,607 that were originally considered acquired loans but have since migrated to the originated loans portfolio as they have reached maturity, were re-underwritten, have been designated as criticized or classified or have been placed on non-accrual since the acquisition date.

Total portfolio loans include net deferred loan origination fees of $9,133 and $5,581 at September 30, 2019 and December 31, 2018, respectively.

Portfolio loans subject to purchase accounting adjustments are shown net of discounts on acquired loans, which were $73,985 at September 30, 2019 and $117,222 at December 31, 2018.

At September 30, 2019 and December 31, 2018, the Bank pledged residential mortgage and commercial real estate loans of $7,729,593 and $8,526,247, respectively, to the FHLB as collateral for certain borrowing arrangements. See Note 8. "Borrowings".

The following tables set forth the amounts and status of our loans, troubled debt restructurings ("TDRs") and non-performing loans at September 30, 2019 and December 31, 2018:

Originated loans:

	September 30, 2019					
	Current	30-59 days past due	60-89 days past due	90+ days past due	Non-accrual	Total
Traditional C&I	$ 2,281,766	$ 7,460	$ 290	$ 351	$ 28,458	$ 2,318,325
Asset-based lending	851,047	—	—	—	19,634	870,681
Payroll finance	208,470	—	—	—	740	209,210
Warehouse lending	1,457,232	—	—	—	—	1,457,232
Factored receivables	277,853	—	—	—	—	277,853
Equipment financing	851,327	10,122	7,495	45	24,266	893,255
Public sector finance	1,122,592	—	—	—	—	1,122,592
CRE	4,765,462	3,399	6,525	—	30,668	4,806,054
Multi-family	1,927,259	—	—	—	5,205	1,932,464
ADC	432,922	—	—	—	961	433,883
Residential mortgage	520,303	2,258	387	—	36,737	559,685
Consumer	123,316	883	3	—	9,182	133,384
Total loans	$ 14,819,549	$ 24,122	$ 14,700	$ 396	$ 155,851	$ 15,014,618
Total TDRs included above	$ 24,635	$ 258	$ —	$ —	$ 24,061	$ 48,954
Non-performing loans:						
Loans 90+ days past due and still accruing					$ 396	
Non-accrual loans					155,851	
Total originated non-performing loans					$ 156,247	

	December 31, 2018					
	Current	30-59 days past due	60-89 days past due	90+ days past due	Non-accrual	Total
Traditional C&I	$ 2,266,947	$ 5,747	$ 6,139	$ —	$ 42,298	$ 2,321,131
Asset-based lending	789,654	—	—	—	3,281	792,935
Payroll finance	226,571	—	—	—	881	227,452
Warehouse lending	782,646	—	—	—	—	782,646
Factored receivables	258,383	—	—	—	—	258,383
Equipment financing	879,468	20,466	1,587	9	12,221	913,751
Public sector finance	860,746	—	—	—	—	860,746
CRE	4,118,134	8,054	—	799	27,969	4,154,956
Multi-family	1,524,914	1,014	—	—	1,691	1,527,619
ADC	267,090	230	—	434	—	267,754
Residential mortgage	592,563	1,934	897	264	25,813	621,471
Consumer	143,510	1,720	1,232	271	7,078	153,811
Total loans	$ 12,710,626	$ 39,165	$ 9,855	$ 1,777	$ 121,232	$ 12,882,655
Total TDRs included above	$ 34,892	$ 215	$ 181	$ 650	$ 38,947	$ 74,885
Non-performing loans:						
Loans 90+ days past due and still accruing					$ 1,777	
Non-accrual loans					121,232	
Total originated non-performing loans					$ 123,009	

Acquired loans:

	September 30, 2019					
	Current	30-59 days past due	60-89 days past due	90+ days past due	Non-accrual	Total
Traditional C&I	$ 58,261	$ —	$ —	$ —	$ 43	$ 58,304
Asset-based lending	303,658	—	—	—	—	303,658
Equipment financing	270,424	7,893	743	—	2,399	281,459
CRE	387,560	758	—	—	4,035	392,353
Multi-family	2,845,849	313	4	250	552	2,846,968
Residential mortgage	1,771,628	14,481	—	309	24,113	1,810,531
Consumer	117,512	1,742	—	—	3,018	122,272
Total loans	$ 5,754,892	$ 25,187	$ 747	$ 559	$ 34,160	$ 5,815,545
Total TDRs included above	$ —	$ —	$ —	$ —	$ —	$ —
Non-performing loans:						
Loans 90+ days past due and still accruing					$ 559	
Non-accrual loans					34,160	
Total acquired non-performing loans					$ 34,719	

	December 31, 2018					
	Current	30-59 days past due	60-89 days past due	90+ days past due	Non-accrual	Total
Traditional C&I	$ 69,690	$ 5,256	$ 105	$ —	$ —	$ 75,051
Equipment financing	288,447	8,659	3,998	187	—	301,291
CRE	481,583	377	—	458	5,043	487,461
Multi-family	3,233,779	1,736	—	—	990	3,236,505
Residential mortgage	2,022,340	18,734	6,513	—	36,168	2,083,755
Consumer	146,042	1,852	951	—	2,967	151,812
Total loans	$ 6,241,881	$ 36,614	$ 11,567	$ 645	$ 45,168	$ 6,335,875
Total TDRs included above	$ —	$ —	$ —	$ —	$ —	$ —
Non-performing loans:						
Loans 90+ days past due and still accruing					$ 645	
Non-accrual loans					45,168	
Total acquired non-performing loans					$ 45,813	

The following table provides additional analysis of our non-accrual loans at September 30, 2019 and December 31, 2018:

	September 30, 2019				December 31, 2018			
	Recorded investment non-accrual loans	Recorded investment PCI non-accrual loans	Recorded investment total non-accrual loans	Unpaid principal balance non-accrual loans	Recorded investment non-accrual loans	Recorded investment PCI non-accrual loans	Recorded investment total non-accrual loans	Unpaid principal balance non-accrual loans
Traditional C&I	$ 28,458	$ 43	$ 28,501	$ 39,321	$ 41,625	$ 673	$ 42,298	$ 50,651
Asset-based lending	19,634	—	19,634	35,205	3,281	—	3,281	3,859
Payroll finance	740	—	740	740	881	—	881	881
Equipment financing	26,665	—	26,665	31,237	12,221	—	12,221	15,744
CRE	25,731	8,972	34,703	39,287	23,675	9,337	33,012	39,440
Multi-family	3,777	1,980	5,757	6,169	482	2,199	2,681	2,920
ADC	961	—	961	961	—	—	—	—
Residential mortgage	34,595	26,255	60,850	71,619	24,339	37,642	61,981	72,706
Consumer	7,928	4,272	12,200	14,177	6,576	3,469	10,045	12,170
Total	$ 148,489	$ 41,522	$ 190,011	$ 238,716	$ 113,080	$ 53,320	$ 166,400	$ 198,371

When the ultimate collectability of the total principal of an impaired loan is in doubt and the loan is on non-accrual status, all payments are applied to principal under the cost recovery method. When the ultimate collectability of the total principal of an impaired loan is not in doubt and the loan is on non-accrual status, contractual interest is credited to interest income when received, under the cash basis method. At September 30, 2019 and December 31, 2018, the recorded investment of residential mortgage loans that were in the process of foreclosure was $40,754 and $48,107, respectively, which is included in non-accrual residential mortgage loans above.

The following table sets forth loans evaluated for impairment by segment and the allowance evaluated by segment at September 30, 2019:

	Loans evaluated by segment				Allowance evaluated by segment		
	Individually evaluated for impairment	Collectively evaluated for impairment	PCI loans[1]	Total loans	Individually evaluated for impairment	Collectively evaluated for impairment	Total allowance for loan losses
Traditional C&I	$ 26,279	$ 2,344,853	$ 5,497	$ 2,376,629	$ —	$ 14,466	$ 14,466
Asset-based lending	19,634	1,141,104	13,601	1,174,339	—	13,968	13,968
Payroll finance	—	209,210	—	209,210	—	1,937	1,937
Warehouse lending	—	1,457,232	—	1,457,232	—	547	547
Factored receivables	—	277,853	—	277,853	—	1,016	1,016
Equipment financing	5,171	1,167,476	2,067	1,174,714	—	16,109	16,109
Public sector finance	—	1,122,592	—	1,122,592	—	1,539	1,539
CRE	31,614	5,145,183	21,610	5,198,407	—	32,111	32,111
Multi-family	3,363	4,770,446	5,623	4,779,432	—	9,556	9,556
ADC	—	433,883	—	433,883	—	4,166	4,166
Residential mortgage	4,625	2,295,539	70,052	2,370,216	—	7,372	7,372
Consumer	2,727	245,976	6,953	255,656	—	1,948	1,948
Total portfolio loans	$ 93,413	$ 20,611,347	$ 125,403	$ 20,830,163	$ —	$ 104,735	$ 104,735

[1] We acquired loans for which there was, at acquisition, both evidence of deterioration of credit quality since origination and the probability, at acquisition, that all contractually required payments would not be collected. These loans are classified as purchased credit impaired loans (“PCI loans”).

The following table sets forth loans evaluated for impairment by segment and the allowance evaluated by segment at December 31, 2018:

	Loans evaluated by segment				Allowance evaluated by segment		
	Individually evaluated for impairment	Collectively evaluated for impairment	PCI loans	Total loans	Individually evaluated for impairment	Collectively evaluated for impairment	Total allowance for loan losses
Traditional C&I	$ 48,735	$ 2,338,432	$ 9,015	$ 2,396,182	$ —	$ 14,201	$ 14,201
Asset-based lending	3,281	789,654	—	792,935	—	7,979	7,979
Payroll finance	—	227,452	—	227,452	—	2,738	2,738
Warehouse lending	—	782,646	—	782,646	—	2,800	2,800
Factored receivables	—	258,383	—	258,383	—	1,064	1,064
Equipment financing	3,577	1,211,465	—	1,215,042	—	12,450	12,450
Public sector finance	—	860,746	—	860,746	—	1,739	1,739
CRE	33,284	4,581,911	27,222	4,642,417	—	32,285	32,285
Multi-family	1,662	4,754,912	7,550	4,764,124	—	8,355	8,355
ADC	—	267,754	—	267,754	—	1,769	1,769
Residential mortgage	3,210	2,614,046	87,970	2,705,226	—	7,454	7,454
Consumer	7,249	290,336	8,038	305,623	—	2,843	2,843
Total portfolio loans	$ 100,998	$ 18,977,737	$ 139,795	$ 19,218,530	$ —	$ 95,677	$ 95,677

Management considers a loan to be impaired when, based on current information and events, it is determined that we will not be able to collect all amounts due according to the loan contract, including scheduled interest payments. Evaluation of impairment is generally

treated the same across all classes of loans on a loan-by-loan basis. Generally loans of $750 or less are evaluated for impairment on a homogeneous pool basis. When management identifies a loan as impaired, the impairment is measured based on the present value of expected future cash flows, discounted at the loan's effective interest rate, except when the sole remaining source of repayment of the loan is the operation or liquidation of the collateral. In these cases, management uses the current fair value of the collateral, less selling costs when foreclosure or liquidation is probable, instead of discounted cash flows. If management determines that the value of the impaired loan is less than the recorded investment in the loan (net of previous charge-offs, deferred loan fees or costs and unamortized premium or discount), impairment is generally recognized through a charge-off to the allowance for loan losses.

The following table presents the changes in the balance of the accretable yield discount for PCI loans for the three and nine months ended September 30, 2019 and 2018:

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
Balance at beginning of period	$ 18,381	$ 21,711	$ 16,932	$ 45,582
Balances acquired in the Woodforest Acquisition	—	—	2,093	—
Accretion of income	(2,459)	(4,027)	(6,381)	(10,578)
Charge-offs	(143)	—	(1,082)	—
Reclassification (to) from non-accretable difference	1,024	1,056	5,241	(1,192)
Other, adjustments	—	—	—	(15,072)
Balance at end of period	$ 16,803	$ 18,740	$ 16,803	$ 18,740

Income is not recognized on PCI loans unless we can reasonably estimate the cash flows that are expected to be collected over the life of the loan. The balance of PCI loans that were treated under the cost recovery method was $3,284 and $5,202 at September 30, 2019 and December 31, 2018, respectively.

The following table presents loans individually evaluated for impairment, excluding PCI loans, by segment of loans at September 30, 2019 and December 31, 2018:

	September 30, 2019		December 31, 2018	
	Unpaid principal balance	Recorded investment	Unpaid principal balance	Recorded investment
Loans with no related allowance recorded:				
Traditional C&I	$ 37,000	$ 26,279	$ 64,653	$ 48,735
Asset-based lending	35,205	19,634	3,859	3,281
Equipment financing	5,171	5,171	3,577	3,577
CRE	35,476	31,614	43,119	33,284
Multi-family	3,695	3,363	2,341	1,662
Residential mortgage	5,962	4,625	3,430	3,210
Consumer	2,727	2,727	7,249	7,249
Total	$ 125,236	$ 93,413	$ 128,228	$ 100,998

Our policy generally requires a charge-off of the difference between the present value of the cash flows or the net collateral value of the collateral securing the loan and our recorded investment. As a result, there were no impaired loans with an allowance recorded at September 30, 2019 and December 31, 2018.

The following table presents the average recorded investment and interest income recognized related to loans individually evaluated for impairment by segment for the three months ended September 30, 2019 and September 30, 2018:

	For the three months ended					
	September 30, 2019			September 30, 2018		
	QTD average recorded investment	Interest income recognized	Cash-basis interest income recognized	QTD average recorded investment	Interest income recognized	Cash-basis interest income recognized
Loans with no related allowance recorded:						
Traditional C&I	$ 26,702	$ 5	$ —	$ 36,731	$ 116	$ —
Asset-based lending	25,334	—	—	14,639	123	—
Equipment financing	4,315	23	—	798	—	—
CRE	27,337	76	—	27,149	294	—
Multi-family	2,488	—	—	1,768	17	—
Residential mortgage	5,218	4	—	1,849	—	—
Consumer	2,727	—	—	4,762	—	—
Total	$ 94,121	$ 108	$ —	$ 87,696	$ 550	$ —

The following table presents the average recorded investment and interest income recognized related to loans individually evaluated for impairment by segment for the nine months ended September 30, 2019 and September 30, 2018:

	For the nine months ended					
	September 30, 2019			September 30, 2018		
	YTD average recorded investment	Interest income recognized	Cash-basis interest income recognized	YTD average recorded investment	Interest income recognized	Cash-basis interest income recognized
Loans with no related allowance recorded:						
Traditional C&I	$ 32,666	$ 15	$ —	$ 35,935	$ 149	$ —
Asset-based lending	22,511	—	—	10,980	347	—
Equipment financing	3,626	92	—	598	—	—
CRE	26,580	227	—	22,704	360	—
Multi-family	2,314	—	—	1,726	48	—
Residential mortgage	4,593	13	—	1,387	—	—
Consumer	2,727	—	—	4,355	—	—
Total	$ 95,017	$ 347	$ —	$ 77,685	$ 904	$ —

Troubled Debt Restructurings ("TDRs")

The following tables set forth the amounts and past due status of our TDRs at September 30, 2019 and December 31, 2018:

	September 30, 2019					
	Current loans	30-59 days past due	60-89 days past due	90+ days past due	Non-accrual	Total
Traditional C&I	$ 475	$ —	$ —	$ —	$ 13,949	$ 14,424
Asset-based lending	—	—	—	—	1,026	1,026
Equipment financing	5,615	71	—	—	1,872	7,558
CRE	8,514	—	—	—	5,031	13,545
ADC	—	—	—	—	434	434
Residential mortgage	7,546	187	—	—	1,416	9,149
Consumer	2,485	—	—	—	333	2,818
Total	$ 24,635	$ 258	$ —	$ —	$ 24,061	$ 48,954

	December 31, 2018					
	Current loans	30-59 days past due	60-89 days past due	90+ days past due	Non-accrual	Total
Traditional C&I	$ 9,011	$ —	$ —	$ —	$ 25,672	$ 34,683
Asset-based lending	—	—	—	—	1,276	1,276
Equipment financing	1,905	—	9	—	2,367	4,281
CRE	11,071	—	—	—	7,112	18,183
ADC	—	—	—	434	—	434
Residential mortgage	5,688	—	103	—	2,312	8,103
Consumer	7,217	215	69	216	208	7,925
Total	$ 34,892	$ 215	$ 181	$ 650	$ 38,947	$ 74,885

We did not have any outstanding commitments to lend additional amounts to customers with loans classified as TDRs as of September 30, 2019 or December 31, 2018.

The following table presents loans by segment modified as TDRs that occurred during the first nine months of 2019 and 2018:

	September 30, 2019			September 30, 2018		
		Recorded investment			Recorded investment	
	Number	Pre-modification	Post-modification	Number	Pre-modification	Post-modification
Traditional C&I	1	$ 5,026	$ 5,026	2	$ 11,606	$ 10,477
Asset-based lending	—	—	—	1	12,766	12,766
Equipment financing	6	5,874	5,039	4	3,307	3,307
CRE	—	—	—	1	12,187	12,187
Residential mortgage	3	1,274	1,274	11	1,684	1,367
Consumer	—	—	—	1	4,944	4,944
Total TDRs	10	$ 12,174	$ 11,339	20	$ 46,494	$ 45,048

During the nine months ended September 30, 2019, there was one equipment finance loan designated as a TDR that experienced a payment default within the twelve months following the modification. During the nine months ended September 30, 2018, except for certain TDRs that are included in non-accrual loans, there were no TDRs that experienced a payment default within the twelve months following a modification. A payment default is defined as missing three consecutive monthly payments or being over 90 days past due

on a scheduled payment. TDRs are formal loan modifications which consist mainly of an extension of the loan maturity date, converting a loan to interest only for some defined period of time, deferral of interest payments, waiver of certain covenants, or reducing collateral requirements or interest rates. TDRs during the periods presented above did not significantly impact the determination of the allowance for loan losses.

(5) Allowance for Loan Losses

Activity in the allowance for loan losses for the three and nine months ended September 30, 2019 and 2018 is summarized below:

	For the three months ended September 30, 2019					
	Beginning balance	Charge-offs	Recoveries	Net charge-offs	Provision / (credit)	Ending balance
Traditional C&I	$ 17,649	$ (123)	$ 136	$ 13	$ (3,196)	$ 14,466
Asset-based lending	11,905	(9,577)	—	(9,577)	11,640	13,968
Payroll finance	1,391	—	8	8	538	1,937
Warehouse lending	843	—	—	—	(296)	547
Factored receivables	1,157	(14)	3	(11)	(130)	1,016
Equipment financing	14,284	(2,711)	422	(2,289)	4,114	16,109
Public sector finance	1,594	—	—	—	(55)	1,539
CRE	34,846	(53)	187	134	(2,869)	32,111
Multi-family	9,360	—	90	90	106	9,556
ADC	2,272	(6)	—	(6)	1,900	4,166
Residential mortgage	7,109	(1,984)	126	(1,858)	2,121	7,372
Consumer	2,254	(241)	108	(133)	(173)	1,948
Total allowance for loan losses	$ 104,664	$ (14,709)	$ 1,080	$ (13,629)	$ 13,700	$ 104,735
Annualized net charge-offs to average loans outstanding:						0.27%

	For the three months ended September 30, 2018					
	Beginning balance	Charge-offs	Recoveries	Net charge-offs	Provision / (credit)	Ending balance
Traditional C&I	$ 18,075	$ (3,415)	$ 235	$ (3,180)	$ (179)	$ 14,716
Asset-based lending	5,837	—	—	—	991	6,828
Payroll finance	1,658	(2)	5	3	522	2,183
Warehouse lending	2,787	—	—	—	(102)	2,685
Factored receivables	1,321	(18)	2	(16)	203	1,508
Equipment financing	8,841	(829)	85	(744)	3,056	11,153
Public sector finance	1,354	—	—	—	90	1,444
CRE	26,870	(359)	612	253	4,345	31,468
Multi-family	7,389	(168)	4	(164)	457	7,682
ADC	2,172	—	—	—	(296)	1,876
Residential mortgage	5,917	(114)	5	(109)	992	6,800
Consumer	3,805	(458)	254	(204)	(579)	3,022
Total allowance for loan losses	$ 86,026	$ (5,363)	$ 1,202	$ (4,161)	$ 9,500	$ 91,365
Annualized net charge-offs to average loans outstanding:						0.08%

	For the nine months ended September 30, 2019					
	Beginning balance	Charge-offs	Recoveries	Net charge-offs	Provision/ (credit)	Ending balance
Traditional C&I	$ 14,201	$ (5,716)	$ 720	$ (4,996)	$ 5,261	$ 14,466
Asset-based lending	7,979	(13,128)	—	(13,128)	19,117	13,968
Payroll finance	2,738	(84)	12	(72)	(729)	1,937
Warehouse lending	2,800	—	—	—	(2,253)	547
Factored receivables	1,064	(73)	128	55	(103)	1,016
Equipment financing	12,450	(5,295)	632	(4,663)	8,322	16,109
Public sector finance	1,739	—	—	—	(200)	1,539
CRE	32,285	(308)	845	537	(711)	32,111
Multi-family	8,355	—	199	199	1,002	9,556
ADC	1,769	(6)	—	(6)	2,403	4,166
Residential mortgage	7,454	(3,758)	128	(3,630)	3,548	7,372
Consumer	2,843	(1,151)	513	(638)	(257)	1,948
Total allowance for loan losses	$ 95,677	$ (29,519)	$ 3,177	$ (26,342)	$ 35,400	$ 104,735
Annualized net charge-offs to average loans outstanding:						0.17%

	For the nine months ended September 30, 2018					
	Beginning balance	Charge-offs	Recoveries	Net charge-offs	Provision/ (credit)	Ending balance
Traditional C&I	$ 19,072	$ (8,818)	$ 674	$ (8,144)	$ 3,788	$ 14,716
Asset-based lending	6,625	—	9	9	194	6,828
Payroll finance	1,565	(316)	34	(282)	900	2,183
Warehouse lending	3,705	—	—	—	(1,020)	2,685
Factored receivables	1,395	(181)	7	(174)	287	1,508
Equipment financing	4,862	(7,505)	347	(7,158)	13,449	11,153
Public sector finance	1,797	—	—	—	(353)	1,444
CRE	24,945	(4,878)	702	(4,176)	10,699	31,468
Multi-family	3,261	(168)	7	(161)	4,582	7,682
ADC	1,680	(721)	—	(721)	917	1,876
Residential mortgage	5,819	(697)	54	(643)	1,624	6,800
Consumer	3,181	(1,074)	482	(592)	433	3,022
Total allowance for loan losses	$ 77,907	$ (24,358)	$ 2,316	$ (22,042)	$ 35,500	$ 91,365
Annualized net charge-offs to average loans outstanding:						0.15%

Credit Quality Indicators

As part of the ongoing monitoring of the credit quality of our loan portfolio, management tracks certain credit quality indicators, including trends related to: (i) the weighted-average risk grade of commercial loans; (ii) the level of classified commercial loans; (iii) the delinquency status of residential mortgage and consumer loans, including home equity lines of credit (“HELOC”) and other consumer loans; (iv) net charge-offs; (v) non-performing loans (see details above); and (vi) the general economic conditions in the greater New York metropolitan region. We analyze loans individually by classifying the loans by credit risk, except residential mortgage loans, HELOC and other consumer loans, which are evaluated on a homogeneous pool basis unless the loan balance is greater than $750. This analysis is performed at least quarterly on all graded 7-Special Mention and lower loans. We use the following definitions of risk ratings:

1 and 2 - These grades include loans that are secured by cash, marketable securities or cash surrender value of life insurance policies.

3 - This grade includes loans to borrowers with strong earnings and cash flow that have the ability to service debt. The borrower’s assets and liabilities are generally well-matched and are above average quality. The borrower has ready access to multiple sources of funding, including alternatives such as term loans, private equity placements or trade credit.

4 - This grade includes loans to borrowers with above average cash flow, adequate earnings and debt service coverage ratios. The borrower generates discretionary cash flow, assets and liabilities are reasonably matched, and the borrower has access to other sources of debt funding or additional trade credit at market rates.

5 - This grade includes loans to borrowers with adequate earnings and cash flow and reasonable debt service coverage ratios. Overall leverage is acceptable and there is average reliance upon trade credit. Management has a reasonable amount of experience and depth, and owners are willing to invest available outside capital, as necessary.

6 - This grade includes loans to borrowers where there is evidence of some strain, earnings are inconsistent and volatile, and the borrowers' outlook is uncertain. Generally, such borrowers have higher leverage than those with a better risk rating. These borrowers typically have limited access to alternative sources of bank debt and may be dependent upon debt funding for working capital support.

7 - Special Mention (OCC definition) - Other Assets Especially Mentioned are loans that have potential weaknesses which may, if not reversed or corrected, weaken the asset or inadequately protect the Bank's credit position at some future date. Such assets constitute an undue and unwarranted credit risk but not to the point of justifying a classification of "Substandard." The credit risk may be relatively minor yet constitute an unwarranted risk in light of the circumstances surrounding a specific asset.

8 - Substandard (OCC definition) - These loans are inadequately protected by the current sound worth and paying capacity of the obligor or of the collateral pledged, if any. Assets so classified must have a well-defined weakness that jeopardizes the liquidation of the debt. They are characterized by the distinct possibility that the Bank will sustain some losses if the deficiencies are not corrected. Loss potential, while existing in the aggregate amount of substandard assets, does not have to exist in individual assets classified as substandard.

9 - Doubtful (OCC definition) - These loans have all the weakness inherent in one classified as "Substandard" with the added characteristics that the weakness makes collection or liquidation in full, on the basis of currently existing facts, conditions, and values, highly questionable and improbable. The possibility of loss is extremely high, but, because of certain important and reasonably specific pending factors which may work to the advantage and strengthening of the asset, its classification as an estimated loss is deferred until its more exact status may be determined. Pending factors may include a proposed merger, acquisition, liquidating procedures, capital injection, perfecting liens or additional collateral and refinancing plans.

10 - Loss (OCC definition) - These loans are charged-off because they are determined to be uncollectible and unbankable assets. This classification does not indicate that the asset has no absolute recovery or salvage value, but rather it is not practical or desirable to defer writing-off this asset even though partial recovery may be effected in the future. Losses should be taken in the period in which they are determined to be uncollectible.

Loans that are risk-rated 1 through 6 as defined above are considered to be pass-rated loans. As of September 30, 2019, the risk category of gross loans by segment was as follows:

	Special Mention			Substandard		
	Originated	Acquired	Total	Originated	Acquired	Total
Traditional C&I	$ 15,159	$ 60	$ 15,219	$ 36,409	$ 879	$ 37,288
Asset-based lending	27,931	30,304	58,235	24,922	—	24,922
Payroll finance	201	—	201	16,923	—	16,923
Equipment financing	11,956	7,482	19,438	44,402	—	44,402
CRE	22,760	9,608	32,368	54,219	5,375	59,594
Multi-family	6,421	2,756	9,177	19,181	728	19,909
ADC	1,855	—	1,855	961	—	961
Residential mortgage	387	—	387	37,458	24,205	61,663
Consumer	92	—	92	9,294	3,019	12,313
Total	$ 86,762	$ 50,210	$ 136,972	$ 243,769	$ 34,206	$ 277,975

At September 30, 2019, there were $44,278 of special mention loans and $122,641 of substandard loans that were originally considered acquired loans but were migrated to the originated loans portfolio as they have been designated criticized or classified status or have been placed on non-accrual since the acquisition date.

As of December 31, 2018, the risk category of gross loans by segment was as follows:

	Special Mention			Substandard		
	Originated	Acquired	Total	Originated	Acquired	Total
Traditional C&I	$ 12,003	$ 99	$ 12,102	$ 51,903	$ 128	$ 52,031
Asset-based lending	14,033	—	14,033	21,865	—	21,865
Payroll finance	9,682	—	9,682	17,766	—	17,766
Factored receivables	—	—	—	508	—	508
Equipment financing	9,966	—	9,966	21,256	—	21,256
CRE	3,852	10,160	14,012	43,336	8,126	51,462
Multi-family	33,321	10,490	43,811	20,812	3,542	24,354
ADC	—	—	—	434	—	434
Residential mortgage	5,179	2,231	7,410	29,475	36,431	65,906
Consumer	1,919	245	2,164	7,223	3,242	10,465
Total	$ 89,955	$ 23,225	$ 113,180	$ 214,578	$ 51,469	$ 266,047

At December 31, 2018, there were $51,282 of special mention loans and $95,575 of substandard loans that were originally considered acquired loans but were migrated to the originated loans portfolio as they have been designated criticized or classified status or have been placed on non-accrual since the acquisition date.

At September 30, 2019, there were no loans rated doubtful. At December 31, 2018, there were $59 of originated consumer loans rated doubtful. There were no loans rated loss at September 30, 2019 or December 31, 2018.

(6) Goodwill and Other Intangible Assets

The balance of goodwill and other intangible assets for the periods presented were as follows:

	September 30, 2019	December 31, 2018
Goodwill	$ 1,657,814	$ 1,613,033
Other intangible assets:		
Core deposits	$ 90,507	$ 104,263
Customer lists	4,142	4,740
Non-compete agreements	—	42
Trade name	20,500	20,500
Total	$ 115,149	$ 129,545

The increase in goodwill at September 30, 2019 compared to December 31, 2018 was due to the Woodforest Acquisition. See Note 2. “Acquisitions” for additional information.

The decrease in other intangible assets at September 30, 2019 compared to December 31, 2018 was due to amortization of intangibles.

The estimated aggregate future amortization expense for intangible assets remaining as of September 30, 2019 was as follows:

	Amortization expense
Remainder of 2019	$ 4,785
2020	16,800
2021	15,104
2022	13,703
2023	12,322
2024	10,448
Thereafter	21,487
Total	$ 94,649

(7) Deposits

Deposit balances at September 30, 2019 and December 31, 2018 were as follows:

	September 30, 2019	December 31, 2018
Non-interest bearing demand	$ 4,586,632	$ 4,241,923
Interest bearing demand	4,236,267	4,207,392
Savings	2,348,903	2,382,520
Money market	7,493,074	7,905,382
Certificates of deposit	2,914,448	2,476,931
Total deposits	$ 21,579,324	$ 21,214,148

Total municipal deposits, which are included in the deposit balances above, were $2,234,630 and $1,751,670 at September 30, 2019 and December 31, 2018, respectively. See Note 3. “Securities” for the aggregate amount of securities that were pledged as collateral for municipal deposits and other purposes.

Brokered deposits at September 30, 2019 and December 31, 2018 were as follows:

	September 30, 2019	December 31, 2018
Interest bearing demand	$ 22,908	$ 23,742
Money market	1,027,549	1,134,081
Certificates of deposits	227,971	—
Total brokered deposits	$ 1,278,428	$ 1,157,823

(8) Borrowings

Our borrowings and weighted average interest rates were as follows for the periods presented:

	September 30, 2019		December 31, 2018	
	Amount	Rate	Amount	Rate
By type of borrowing:				
FHLB borrowings	$ 2,800,907	2.16%	$ 4,838,772	2.40%
Repurchase agreements	26,544	1.20	21,338	1.20
Senior Notes	173,652	3.19	181,130	3.19
Subordinated Notes	173,121	5.45	172,943	5.45
Total borrowings	$ 3,174,224	2.41%	$ 5,214,183	2.52%
By remaining period to maturity:				
Less than one year	$ 1,900,440	2.31%	$ 3,958,635	2.48%
One to two years	1,075,663	2.10	831,889	2.28
Two to three years	25,000	1.71	250,716	2.04
Greater than five years	173,121	5.45	172,943	5.45
Total borrowings	$ 3,174,224	2.41%	$ 5,214,183	2.52%

FHLB borrowings. As a member of the FHLB, the Bank may borrow up to a discounted percentage of the amount of eligible mortgages and securities that have been pledged as collateral under a blanket security agreement. As of September 30, 2019 and December 31, 2018, the Bank had total residential mortgage and commercial real estate loans pledged after discount of $7,729,593 and $8,526,247, respectively. In addition to the pledged mortgages, the Bank had also pledged securities to secure borrowings, which are disclosed in Note 3. "Securities." As of September 30, 2019, the Bank had unused borrowing capacity at the FHLB of $4,721,450 and may increase such borrowing capacity by pledging securities not required to be pledged for other purposes with a collateral value of approximately $2,629,582.

Repurchase agreements. The Bank enters into sales of securities under agreements to repurchase. These repurchase agreements facilitate the needs of our customers and a portion of our secured short-term funding needs. Securities sold under agreements to repurchase at September 30, 2019 and December 31, 2018 are secured short-term borrowings that mature in one to 45 days and are generally renewed on a continuous basis. Repurchase agreements are stated at the amount of cash received in connection with these transactions. The securities pledged under these repurchase agreements fluctuate in value due to market conditions. The Bank is obligated to promptly transfer additional securities if the market value of the securities falls below the repurchase agreement price. Securities pledged as collateral under repurchase agreements are maintained with our safekeeping agents.

Senior Notes. On October 2, 2017, in connection with the Astoria Merger, we assumed $200,000 principal amount of 3.50% fixed rate senior notes that mature on June 8, 2020 (the "Senior Notes"). The Senior Notes were issued by Astoria on June 8, 2017 through a public offering. We recorded the Senior Notes at an estimated fair value of 100.76% on the acquisition date, which was based on the quoted market value. The fair value adjustment, with a remaining balance of $279 at September 30, 2019, is being amortized over the remaining maturity using a level-yield methodology, which results in an effective cost of 3.19%. During the nine months ended September 30, 2019, we repurchased $7,000 of the Senior Notes and recorded a gain of $46. During the fourth quarter of 2018, we reacquired $19,627 of the Senior Notes.

Subordinated Notes. On March 29, 2016, the Bank issued $110,000 principal amount of 5.25% fixed-to-floating rate subordinated notes (the "Subordinated Notes") through a private placement at a discount of 1.25%. The cost of issuance was $500. On September 2, 2016, the Bank reopened the Subordinated Notes offering and issued an additional $65,000 principal amount of Subordinated Notes. The Subordinated Notes issued September 2, 2016 are fully fungible with, rank equally in right of payment with, and form a single series with the Subordinated Notes issued in March 2016. The Subordinated Notes issued in September 2016 were issued to the purchasers at a premium of 0.50% and an underwriters discount of 1.25%. The cost of issuance was $275. At September 30, 2019, the net unamortized discount of all Subordinated Notes was $1,879, which will be accreted to interest expense over the life of the Subordinated Notes, resulting in an effective yield of 5.45%. Interest is due semi-annually in arrears on April 1 and October 1 of each year, until April 1, 2021. From and including April 1, 2021, the Subordinated Notes will bear interest at a floating rate per annum equal to three-month LIBOR plus 3.937%, payable quarterly on January 1, April 1, July 1 and October 1 of each year, beginning on

July 1, 2021, through maturity on April 1, 2026 or earlier redemption. The Subordinated Notes are redeemable by the Bank, in whole or in part, on April 1, 2021 and each interest payment date thereafter. The Subordinated Notes are redeemable in whole at any time upon the occurrence of certain specified events. The Subordinated Notes are unsecured, subordinated obligations of the Bank and are subordinated in right of payment to all of the Bank's existing and future senior indebtedness, including claims of depositors and general creditors. The Subordinated Notes qualify as Tier 2 capital for regulatory purposes. See Note 16. "Stockholders' Equity" for additional information.

Revolving line of credit. Effective August 27, 2019, we renewed our $35,000 revolving line of credit facility (the "Credit Facility"). The Credit Facility, which is with another financial institution, matures on August 31, 2020. The balance was zero at September 30, 2019 and December 31, 2018. The use of proceeds are for general corporate purposes. The Credit Facility and accrued interest is payable at maturity, and we are required to maintain a zero balance for at least 30 days during its term. Loans under the Credit Facility bear interest at one-month LIBOR plus 1.25%. Under the terms of the Credit Facility, we must maintain certain ratios related to capital, non-performing assets to capital, reserves to non-performing loans and debt service coverage. We were in compliance with all requirements of the Credit Facility at September 30, 2019.

(9) Leases

At September 30, 2019, operating lease right-of-use assets of $113,985 and operating lease liabilities of $120,700 were included in other assets and other liabilities, respectively, on our consolidated balance sheet. We do not have any significant finance leases in which we are the lessee. We have operating leases for financial centers, back-office operations locations, business development offices, information technology data centers and equipment. Our leases have remaining terms of one year to 16 years, some of which include options to extend the lease for up to 10 years and some of which include options to terminate the lease within two years. Sub-leases are not material to our financial statements and were not considered in the right-of-use asset or lease liability.

The components of lease expense were as follows:

	Three months ended September 30, 2019	Nine months ended September 30, 2019
Operating lease expense	$ 4,913	$ 14,695
Sub-lease income	(845)	(2,002)
Net lease expense	$ 4,068	$ 12,693

Net lease expense for the three and nine months ended September 30, 2018, prior to the adoption of ASU 2016-02, was $4,572 and $13,972, respectively.

Future minimum payments for operating leases with initial or remaining terms of one year or more as of September 30, 2019 were as follows:

Remainder of 2019	$ 4,968
2020	19,379
2021	17,823
2022	16,109
2023	14,504
2024	12,703
2025 and thereafter	54,229
Total lease payments	139,715
Interest	19,015
Present value of lease liabilities	$ 120,700

Lease Term and Discount Rate:

	September 30, 2019
Weighted average remaining lease term (years)	8.21
Weighted average remaining discount rate	3.25%

(10) Derivatives

We have entered into certain interest rate swap contracts that are not designated as hedging instruments. These derivative contracts relate to transactions in which we enter into an interest rate swap with a customer while at the same time entering into an offsetting interest rate swap with another financial institution. In connection with each swap transaction, we agree to pay interest to the customer on a notional amount at a variable interest rate and receive interest from the customer on a similar notional amount at a fixed interest rate. At the same time, we agree to pay another financial institution the same fixed interest rate on the same notional amount and receive the same variable interest rate on the same notional amount. The transaction allows our customers to effectively convert a variable rate loan to a fixed rate loan. Because we act as an intermediary for our customers, changes in the fair value of the underlying derivative contracts largely offset each other and do not materially impact our results of operations.

We have entered into interest rate swap contracts that are both over-the-counter, or OTC, and those that are exchanged on futures markets such as the Chicago Mercantile Exchange (“CME”). At September 30, 2019 and December 31, 2018, the OTC derivatives are included in our financial statements at the gross fair value amount of the asset (included in other assets) and liability (included in other liabilities), which represents the change in the fair value of the contract since inception. The CME legally characterizes variation margin payments (a payment made based on changes in the fair value of the interest rate swap contracts) as a settlement, referred to as settled-to-market (“STM”). As a result, at September 30, 2019 and December 31, 2018, we posted cash collateral under STMs in the amounts of $58,844 and $5,214, respectively, for the net fair value of our CME interest rate swap contracts with another financial institution. The increase was mainly due to an increase in swap contracts and changes in the fair value of the underlying interest rate swap contracts, which may change daily, positively or negatively, mainly due to changes in interest rates.

We do not typically require our commercial customers to post cash or securities as collateral on its program of back-to-back swaps. However, certain language is written into the International Swaps and Derivatives Association agreement and loan documents where, in default situations, we are allowed to access collateral supporting the loan relationship to recover any losses suffered on the derivative asset or liability.

Summary information as of September 30, 2019 and December 31, 2018 regarding these derivatives is presented below:

	Notional amount	Average maturity (in years)	Weighted average fixed rate	Weighted average variable rate	Fair value
September 30, 2019					
Included in other assets:					
Third-party interest rate swap	$ 143,241				$ 140
Customer interest rate swap	1,492,859				84,849
Total	$ 1,636,100	5.37	4.54%	1 m Libor + 2.22%	$ 84,989
Included in other liabilities:					
Third-party interest rate swap	$ (1,492,859)				$ (26,023)
Customer interest rate swap	(143,241)				(122)
Total	$ (1,636,100)	5.37	4.54%	1 m Libor + 2.22%	$ (26,145)
December 31, 2018					
Included in other assets:					
Third-party interest rate swap	$ 516,419				$ 1,963
Customer interest rate swap	556,934				16,252
Total	$ 1,073,353	5.90	4.65%	1 m Libor + 2.29%	$ 18,215
Included in other liabilities:					
Third-party interest rate swap	$ (556,934)				$ (4,351)
Customer interest rate swap	(516,419)				(8,650)
Total	$ (1,073,353)	5.90	4.65%	1 m Libor + 2.29%	$ (13,001)

(11) Income Taxes

Actual income tax expense differs from the tax computed based on pre-tax income and the applicable statutory federal tax rate for the following reasons:

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
Income before income tax expense	$ 154,996	$ 146,821	$ 405,364	$ 421,305
Tax at federal statutory rate of 21%	32,549	30,833	85,126	88,474
State and local income taxes, net of federal tax benefit	9,469	7,330	22,347	21,284
Tax exempt interest, net of disallowed interest	(5,429)	(4,970)	(15,985)	(14,435)
BOLI income	(2,441)	(861)	(4,103)	(2,406)
Low income housing tax credits and other benefits	(5,431)	(401)	(14,592)	(2,903)
Low income housing investment amortization expense	4,627	—	12,510	—
Equity-based stock compensation benefit	—	—	(106)	(441)
FDIC insurance premium limitation	239	466	717	1,483
Other, net	(1,034)	(5,226)	(894)	(2,514)
Actual income tax expense	$ 32,549	$ 27,171	$ 85,020	$ 88,542
Effective income tax rate	21.0%	18.5%	21.0%	21.0%

Net deferred tax liabilities totaled $13,170 at September 30, 2019 compared to net deferred tax assets of $53,990 at December 31, 2018. The decline in net deferred tax assets at September 30, 2019 compared to December 31, 2018 was mainly due to the change

from an unrealized loss to an unrealized gain on available for sale securities. No valuation allowance was recorded against any deferred tax assets as of those dates, based upon management's consideration of historical and anticipated future pre-tax income, and the reversal periods for the items resulting in deferred tax assets and liabilities. There were no unrecognized tax benefits during any of the reported periods.

Interest and/or penalties related to income taxes are reported as a component of other non-interest expense. Such amounts were not material during the reported periods.

We are generally no longer subject to examination by federal, state and local taxing authorities for tax years prior to December 31, 2015.

(12) Stock-Based Compensation

We have one active stock-based compensation plan, as described below.

Our stockholders approved the 2015 Omnibus Equity and Incentive Plan (the "2015 Plan") on May 28, 2015. The 2015 Plan permitted the grant of stock options, stock appreciation rights, restricted stock (both time-based and performance-based), restricted stock units, deferred stock and other stock-based awards. The total number of shares that could be awarded under the 2015 Plan was 2,800,000 shares, plus the remaining shares available for grant under the 2014 Stock Incentive Plan as of the date of adoption of the 2015 Plan.

On May 29, 2019, our stockholders approved the Amended and Restated 2015 Omnibus Plan (the "Amended Omnibus Plan"). The Amended Omnibus Plan increased the shares available for issuance to 7,000,000 from 4,454,318, and updated certain tax-related provisions as a result of the Tax Cuts and Jobs Act and related administrative changes. The amendment increased the number of shares reserved for issuance thereunder by 2,545,682 shares. The Amended Omnibus Plan provides for the granting of the same instruments as the 2015 Plan, and one share is deducted for every share that is awarded and delivered under the Amended Omnibus Plan.
At September 30, 2019, there were an aggregate amount of 3,371,609 shares available for future grant under the Amended Omnibus Plan.

Restricted stock awards are granted with a fair value equal to the market price of our common stock at the date of grant. Stock option awards are granted with a strike price that is equal to the market price of our common stock at the date of grant. The restricted stock awards generally vest in equal installments annually on the anniversary date of grant and have total vesting periods ranging from one year to five years, while stock options have 10-year contractual terms.

The following table summarizes the activity in our stock-based compensation plan for the nine months ended September 30, 2019:

		Non-vested stock awards/stock units outstanding		Stock options outstanding	
	Shares available for grant	Number of shares	Weighted average grant date fair value	Number of shares	Weighted average exercise price
Balance at January 1, 2019	2,318,950	1,333,514	$ 22.12	686,539	$ 11.20
Amended 2015 Omnibus Equity and Incentive Plan	2,545,682	—	—	—	—
Granted	(1,507,792)	1,507,792	19.63	—	—
Stock awards vested [1]	(70,353)	(553,432)	19.21	—	—
Exercised	—	—	—	(215,997)	11.09
Forfeited	86,622	(85,122)	22.30	(1,500)	10.03
Canceled/expired	(1,500)	—	—	—	
Balance at September 30, 2019	3,371,609	2,202,752	$ 20.98	469,042	$ 11.25
Exercisable at September 30, 2019				469,042	$ 11.25

[1] The 70,353 shares vested represents performance shares that were granted in February 2016 to certain executives with a three-year measurement period. These shares vested in the first quarter of 2019 at 150.0% of the target amount granted, which resulted in these additional shares being awarded and additional expense of $1,000 which was recorded in the first quarter of 2019.

The total intrinsic value of outstanding in-the-money stock options and outstanding in-the-money exercisable stock options was $4,133 at September 30, 2019.

We use an option pricing model to estimate the grant date fair value of stock options granted. There were no stock options granted during the nine months ended September 30, 2019 or September 30, 2018.

Stock-based compensation expense is recognized ratably over the requisite service period for all awards. Stock-based compensation expense associated with stock options and non-vested stock awards and the related income tax benefit are presented below:

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
Stock options	$ —	$ 2	$ —	$ 5
Non-vested stock awards/performance units	4,565	3,113	14,293	9,299
Total	$ 4,565	$ 3,115	$ 14,293	$ 9,304
Income tax benefit	959	654	3,002	1,954
Proceeds from stock option exercises	508	154	2,397	556

Unrecognized stock-based compensation expense as of September 30, 2019 was as follows:

	September 30, 2019
Stock options	$ —
Non-vested stock awards/performance units	32,405
Total	$ 32,405

The weighted average period over which unrecognized non-vested stock awards/performance units expense is expected to be recognized is 1.99 years.

(13) Pension and Other Post-Retirement Benefits

Total pension and other post-retirement benefits expense is comprised of the following for the periods presented below:

	For the three months ended			
	September 30, 2019		September 30, 2018	
	Pension Benefits	Other Post Retirement Benefits	Pension Benefits	Other Post Retirement Benefits
Service cost	$ —	$ 15	$ —	$ 20
Interest cost	3,044	265	2,121	254
Expected return on plan assets	(4,044)	—	(3,353)	—
Net amortization and deferral	—	(82)	—	—
Net periodic pension and other post-retirement (benefit) expense	$ (1,000)	$ 198	$ (1,232)	$ 274

	For the nine months ended			
	September 30, 2019		September 30, 2018	
	Pension Benefits	Other Post Retirement Benefits	Pension Benefits	Other Post Retirement Benefits
Service cost	$ —	$ 45	$ —	$ 62
Interest cost	8,382	835	6,364	780
Expected return on plan assets	(10,303)	—	(10,058)	—
Net amortization and deferral	—	(247)	—	—
Net periodic pension and other post-retirement (benefit) expense	$ (1,921)	$ 633	$ (3,694)	$ 842

Total net periodic pension and other post-retirement (benefit) expense is included as a component of other non-interest expense.

Our pension benefit plans include all of the assets and liabilities of the Astoria Excess and Supplemental Benefit Plans, the Astoria Directors' Retirement Plan, the Greater New York Savings Bank Directors' Retirement Plan and the Long Island Bancorp Directors' Retirement Plan, which were assumed in the Astoria Merger. Our other post retirement benefit plans include the Astoria Bank Retiree Health Care Plan and the Astoria Bank BOLI plan, which were assumed in the Astoria Merger, and other non-qualified Supplemental Executive Retirement Plans ("SERPs") that provide certain directors, officers and executives with supplemental retirement benefits.

During the quarter ended September 30, 2019, we terminated the Astoria Bank Employees' Pension Plan (the "Plan"). We purchased annuities from a third-party insurance carrier and made lump sum distributions as elected by Plan participants. In connection with the Plan termination, we recognized a net gain of $12,097, which was mainly comprised of the remaining balance of accumulated other comprehensive income and related deferred taxes. A pension reversion asset of $16,538 was recorded in other assets in the consolidated balance sheets at September 30, 2019, and will be held in custody by the Bank's 401(k) plan custodian. The pension reversion asset is expected to be charged to earnings over the next five to seven years as it is distributed to employees under qualified compensation and benefit programs.

We contributed $214 and $41,825 to fund pension and other post retirement benefits during the three months ended September 30, 2019 and September 30, 2018, respectively, and contributed $897 and $42,500 to fund pension and other post retirement benefits during the nine months ended September 30, 2019 and September 30, 2018, respectively. The Astoria Bank Employees' Pension Plan was overfunded by $13,608 at December 31, 2018, and such overfunded amount was included in other assets in our consolidated balance sheet. The remaining pension benefit plans and other post retirement benefit plans are unfunded plans. At September 30, 2019 and December 31, 2018, the unfunded amounts of $35,191 and $35,278, respectively, were included in other liabilities in our consolidated balance sheets.

(14) Non-Interest Income and Other Non-Interest Expense

(a) Non-Interest Income - Revenue from Contracts with Customers

Our significant sources of non-interest income are presented on the face of the consolidated income statements. A description of our revenue streams follows:

Deposit fees and service charges. We earn fees from our deposit customers mainly for transaction-based, account maintenance, and overdraft services. Transaction-based fees, which include services such as ATM use fees, stop payment charges, statement rendering, and ACH fees, are recognized at the time the transaction is executed as that is the point in time we fulfill the customer's request. Account maintenance fees, which relate primarily to monthly maintenance, are earned over the course of a month, representing the period over which we satisfy the performance obligation. Overdraft fees are recognized at the point in time that the overdraft occurs. Service charges on deposits are withdrawn from the customer's account balance.

Accounts receivable management / factoring commissions and other fees. We earn these fees / commissions from our payroll finance and factoring businesses, as described below.

Payroll finance. We provide financing and back-office support services, which include preparation of payroll, payroll tax payments, billings and collections, for clients in the temporary staffing industry. Upon completion of the back-office support services, and as payroll remittances are made on behalf of the client to fund their employee payroll, which typically occurs weekly, we recognize a portion of the total revenue generated as non-interest income. We collect invoices directly from the borrower's customers, retain the amounts billed for the temporary staffing services provided, and remit the remaining funds to the borrower net of amounts advanced, payroll taxes withheld, our fees, and subject to a reserve to offset potential uncollectible balances.

Factored Receivables. We provide accounts receivable management services. The purchase of a client's accounts receivable is traditionally known as "factoring" and results in payment by the client of a factoring fee. The factoring fee included in non-interest income represents compensation to us for the bookkeeping and collection services provided. The factoring fee, which is non-refundable, is recognized at the time the receivable is assigned to us. Other revenue associated with factored receivables includes wire fees, technology fees, field examination fees and UCC fees. All such fees are recognized as income upon receipt, which is when our obligations are provided to our customers.

Investment management fees. We earn investment management fees from our contracts with customers to manage assets for investment, and / or to transact on their accounts. Advisory fees are primarily earned over time as we provide the contracted monthly or quarterly services and are generally assessed based on a tiered scale calculated on the market value of assets under management at month end. Fees that are transaction-based, including trade execution services, are recognized on the trade date.

Gains / Losses on sales of other real estate owned ("OREO"). We record a gain or loss from the sale of OREO when control of the property transfers to the buyer, which generally occurs at the time of an executed deed. When we finance the sale of OREO to the buyer, we assess whether the buyer is committed to perform its obligations under the contract and whether collectability of the transaction price is probable. Once these criteria are met, the OREO asset is derecognized and the gain or loss on sale is recorded upon the transfer of control of the property to the buyer. In determining the gain or loss on the sale, we may adjust the transaction price and related gain (loss) on sale if a significant financing component is present.

Gain on termination of pension plan. See Note 13. Pension and Other Post-Retirement Benefits for information regarding the termination of the Astoria pension plan.

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. Our non-interest revenue streams are largely based on transactional activity, or standard month-end revenue accruals such as investment management fees based on period-end market values. Consideration is often received immediately or shortly after we satisfy our performance obligation and revenue is recognized. We do not typically enter into long-term revenue contracts with customers, and therefore, do not experience significant contract balances. As of September 30, 2019 and December 31, 2018, we did not have any significant contract balances.

(b) Other Non-Interest Expense

Other non-interest expense items for the three and nine months ended September 30, 2019 and 2018, respectively, are presented in the following table:

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
Other non-interest expense:				
Professional fees	$ 4,438	$ 2,866	$ 14,966	$ 9,269
Advertising and promotion	2,514	1,147	4,889	3,962
Telephone	1,511	1,238	5,115	4,500
Operational losses	536	791	3,026	2,945
Insurance & surety bond premium	982	1,299	3,050	2,680
Other	6,620	5,832	22,573	16,324
Total other non-interest expense	$ 16,601	$ 13,173	$ 53,619	$ 39,680

(15) Earnings Per Common Share

The following is a summary of the calculation of earnings per common share ("EPS"):

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
Net income available to common stockholders	$ 120,465	$ 117,657	$ 314,386	$ 326,775
Weighted average common shares outstanding for computation of basic EPS	203,090,365	225,088,511	207,685,051	224,969,121
Common-equivalent shares due to the dilutive effect of stock options and unvested performance share grants[1]	476,217	534,384	423,524	535,342
Weighted average common shares for computation of diluted EPS	203,566,582	225,622,895	208,108,575	225,504,463
EPS[2]:				
Basic	$ 0.59	$ 0.52	$ 1.51	$ 1.45
Diluted	0.59	0.52	1.51	1.45

[1] Represents incremental shares computed using the treasury stock method.
[2] Anti-dilutive shares are not included in determining diluted EPS. There were no anti-dilutive shares in the three or nine months ended September 30, 2019 or September 30, 2018.

(16) Stockholders' Equity

(a) Regulatory Capital Requirements

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

The Company's and the Bank's Common Equity Tier 1 capital consists of common stock and related paid-in capital, net of treasury stock, and retained earnings. In connection with the adoption of the Basel III Capital Rules, we elected to opt-out of the requirement to include most components of accumulated other comprehensive income in Common Equity Tier 1 capital. Common Equity Tier 1 capital for both the Company and the Bank is reduced by goodwill and other intangible assets, net of associated deferred tax liabilities and subject to transition provisions.

Tier 1 capital includes Common Equity Tier 1 capital and additional Tier 1 capital. Total capital includes Tier 1 capital and Tier 2 capital. Tier 2 capital (as defined in the regulations) for both the Bank and us includes a permissible portion of the allowance for loan losses and $173,121 and $147,186 of the Subordinated Notes, respectively. During the final five years of the term of the Subordinated Notes, the permissible portion eligible for inclusion in Tier 2 capital decreases by 20% annually.

The Common Equity Tier 1, Tier 1 and Total capital ratios are calculated by dividing the respective capital amounts by risk-weighted assets ("RWA"). RWA is calculated based on regulatory requirements and includes total assets, excluding goodwill and other intangible assets, allocated by risk weight category, and certain off-balance-sheet items, among other items.

The following tables present actual and required capital ratios as of September 30, 2019 and December 31, 2018 for us and the Bank under the Basel III Capital Rules. The Basel III Capital Rules became fully phased-in on January 1, 2019. The minimum required capital amounts presented as of September 30, 2019 and December 31, 2018 are based on the fully phased-in provisions of the Basel III Capital Rules. Capital levels required to be considered well-capitalized are based upon prompt corrective action regulations, as amended to reflect the changes under the Basel III Capital Rules.

	Actual		Minimum capital required - Basel III		Required to be considered well-capitalized	
	Capital amount	Ratio	Capital amount	Ratio	Capital amount	Ratio
September 30, 2019						
Common equity tier 1 to RWA:						
Sterling National Bank	$ 2,817,082	12.73%	$ 1,548,458	7.00%	$ 1,437,854	6.50%
Sterling Bancorp	2,596,901	11.73	1,549,838	7.00	N/A	N/A
Tier 1 capital to RWA:						
Sterling National Bank	2,817,082	12.73%	1,880,270	8.50%	1,769,666	8.00%
Sterling Bancorp	2,734,699	12.35	1,881,946	8.50	N/A	N/A
Total capital to RWA:						
Sterling National Bank	3,095,592	13.99%	2,322,687	10.50%	2,212,083	10.00%
Sterling Bancorp	2,987,273	13.49	2,324,757	10.50	N/A	N/A
Tier 1 leverage ratio:						
Sterling National Bank	2,817,082	10.08%	1,117,759	4.00%	1,397,198	5.00%
Sterling Bancorp	2,734,699	9.78	1,118,770	4.00	N/A	N/A

	Actual		Minimum capital required - Basel III phase-in schedule		Minimum capital required - Basel III fully phased-in		Required to be considered well-capitalized	
	Capital amount	Ratio	Capital amount	Ratio	Capital amount	Ratio	Capital amount	Ratio
December 31, 2018								
Common equity tier 1 to RWA:								
Sterling National Bank	$ 2,915,484	13.55%	$ 1,371,480	6.375%	$ 1,505,939	7.00%	$ 1,398,372	6.50%
Sterling Bancorp	2,649,593	12.31	1,372,457	6.375	1,507,011	7.00	N/A	N/A
Tier 1 capital to RWA:								
Sterling National Bank	2,915,484	13.55%	1,694,181	7.875%	1,828,640	8.50%	1,721,073	8.00%
Sterling Bancorp	2,788,016	12.95	1,695,388	7.875	1,829,942	8.50	N/A	N/A
Total capital to RWA:								
Sterling National Bank	3,184,758	14.80%	2,124,450	9.875%	2,258,908	10.50%	2,151,341	10.00%
Sterling Bancorp	3,027,124	14.06	2,125,963	9.875	2,260,517	10.50	N/A	N/A
Tier 1 leverage ratio:								
Sterling National Bank	2,915,484	9.94%	1,172,964	4.00%	1,172,964	4.00%	1,466,206	5.00%
Sterling Bancorp	2,788,016	9.50	1,173,883	4.00	1,173,883	4.00	N/A	N/A

The Bank and the Company are subject to the regulatory capital requirements administered by the FRB, and, for the Bank, the Office of the Comptroller of the Currency. Regulatory authorities can initiate certain mandatory actions if the Bank or the Company fails to meet the minimum capital requirements, which could have a direct material effect on our financial statements. As of September 30, 2019, and December 31, 2018, the most recent regulatory notifications categorized the Company and the Bank as well capitalized under the regulatory framework for prompt corrective action. There are no conditions or events since that notification that management believes have changed the classification.

(b) Dividend Restrictions

We are mainly dependent on dividends from the Bank to provide funds for the payment of dividends to stockholders and to provide for other cash requirements. Banking regulations may limit the amount of dividends that may be paid. Approval by regulatory authorities is required if the effect of dividends declared would cause the regulatory capital of the Bank to fall below specified minimum levels. Approval is also required if dividends declared exceed the net profits for that fiscal year combined with the retained net profits for the preceding two fiscal years. Under the foregoing dividend restrictions and while maintaining its "well-capitalized" status, at September 30, 2019, the Bank had capacity to pay aggregate dividends of up to $165,000 to us without prior regulatory approval.

(c) Stock Repurchase Plans

From time to time, our Board of Directors has authorized stock repurchase plans. Repurchases may be made at management's discretion through open market purchases and block trades in accordance with SEC and regulatory requirements. Any common shares purchased will be held as Treasury stock and made available for general corporate purposes. In the nine months ended September 30, 2019, there were 15,312,694 shares repurchased under the repurchase program and none during the nine months ended September 30, 2018. On April 24, 2019, our Board of Directors increased the number of shares authorized for repurchase from 10,000,000 common shares to 20,000,000 common shares. As of September 30, 2019, there was remaining capacity of 5,572,535 shares for repurchase under our current approved program.

(17) Commitments and Contingencies

(a) Off-Balance Sheet Financial Instruments

In the normal course of business, we enter into various transactions, which, in accordance with GAAP, are not included in our consolidated balance sheets. We enter into these transactions to meet the financing needs of our customers. These transactions include commitments to extend credit and standby letters of credit, which involve, to varying degrees, elements of credit risk and interest rate risk in excess of the amounts recognized in the consolidated balance sheets. We minimize our exposure to losses under these commitments by subjecting them to credit approval and monitoring procedures.

We enter into contractual commitments to extend credit, normally with fixed expiration dates or termination clauses, at specified rates and for specific purposes. Substantially all of our commitments to extend credit are contingent upon customers maintaining specific credit standards at the time of loan funding. Standby letters of credit are written conditional commitments issued by us to guarantee the performance of a customer to a third-party. In the event the customer does not perform in accordance with the terms of the agreement with the third-party, we would be required to fund the commitment. The maximum potential amount of future payments we could be required to make is represented by the contractual amount of the commitment. If the commitment were funded, we would be entitled to seek recovery from the customer. Based on our credit risk exposure assessment of our standby letter of credit arrangements, the arrangements contain security and debt covenants similar to those contained in loan agreements.

The contractual or notional amounts of these instruments, which reflect the extent of our involvement in particular classes of off-balance sheet financial instruments, are summarized as follows:

	September 30, 2019	December 31, 2018
Loan origination commitments	$ 575,798	$ 417,027
Unused lines of credit	1,524,355	1,737,315
Letters of credit	308,689	287,779

(b) Litigation

We and the Bank are involved in a number of judicial proceedings concerning matters arising from our and their business activities. These include routine legal proceedings arising in the ordinary course of business. These proceedings also include actions brought against us and the Bank with respect to corporate matters and transactions in which we and the Bank are or were involved.

There can be no assurance as to the ultimate outcome of a legal proceeding; however, we and the Bank have generally denied liability in all significant litigation pending against us and intend to defend vigorously each case, other than matters that are determined appropriate to be settled. We and the Bank accrue a liability for legal claims when payments associated with the claims become probable and the costs can be reasonably estimated. The actual costs of resolving legal claims may be substantially higher or lower than the amounts accrued for those claims. At September 30, 2019 and December 31, 2018, we have no amounts accrued for litigation.

(18) Fair Value Measurements

Fair value is the exchange price that would be received for an asset or paid to transfer a liability (exit price) in an orderly transaction occurring in the principal or most advantageous market for such asset or liability between market participants on the measurement date. In estimating fair value, we use valuation techniques that are consistent with the market approach, the income approach and/or the cost approach. Such valuation techniques are consistently applied. GAAP establishes a fair value hierarchy comprised of three levels of inputs that may be used to measure fair values.

Level 1 Inputs – Unadjusted quoted prices in active markets for identical assets and liabilities that the reporting entity has the ability to access at the measurement date.

Level 2 Inputs – Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. These might include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the asset or liability (such as interest rates, volatilities, prepayment speeds, credit risk, etc.) or inputs that are derived principally from, or corroborated by, market data by correlation or other means.

Level 3 Inputs – Unobservable inputs for determining the fair value of assets or liabilities that reflect an entity's own assumptions about the assumptions that market participants would use in pricing the assets or liabilities.

In general, fair value is based on quoted market prices, when available. If quoted market prices in active markets are not available, fair value is based on internally developed models that primarily use, as inputs, observable market-based parameters. Valuation adjustments may be made to ensure that financial instruments are recorded at fair value. These adjustments may include amounts to reflect counterparty credit quality and our creditworthiness, among other things, as well as unobservable parameters. Any such valuation adjustments are applied consistently over time. Our valuation methodologies may produce a fair value calculation that may

not be indicative of net realizable value or reflective of future fair values. While management believes its valuation methodologies are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date. Furthermore, the reported fair value amounts have not been comprehensively revalued since the presentation dates, and therefore, estimates of fair value after the balance sheet date may differ significantly from the amounts presented herein. A more detailed description of the valuation methodologies used for assets and liabilities measured at fair value is set forth below. Transfers between levels of the fair value hierarchy are recognized on the actual date of the event or circumstances that caused the transfer, which generally coincide with our monthly and/or quarterly valuation process.

Investment Securities Available for Sale

The majority of our available for sale investment securities are reported at fair value utilizing Level 2 inputs. For these securities, we obtain fair value measurements from an independent pricing service. The fair value measurements consider observable data that may include dealer quotes, market spreads, cash flows, the U.S. Treasury yield curve, live trading levels, trade execution data, market consensus prepayment speeds, credit information and the securities' terms and conditions, among other things.

We review the prices supplied by the independent pricing service, as well as their underlying pricing methodologies, for reasonableness and to ensure such prices are aligned with traditional pricing matrices. In general, we do not purchase investment securities that have a complicated structure. Our entire portfolio consists of traditional investments, nearly all of which are mortgage pass-through securities, state and municipal general obligation or revenue bonds, U.S. agency bullet and callable securities and corporate bonds. Pricing for such instruments is fairly generic and is easily obtained. From time to time, we validate, on a sample basis, prices supplied by the independent pricing service by comparison to prices obtained from third-party sources or derived using internal models.

As of September 30, 2019, management did not believe any of our securities are OTTI; however, management reviews all of our securities on at least a quarterly basis to assess whether impairment, if any, is OTTI.

Derivatives

The fair values of derivatives are based on valuation models using current observable market data (including interest rates and fees), the remaining terms of the agreements and the credit worthiness of the counterparty as of the measurement date, which are considered Level 2 inputs. Our derivatives are traded in an over-the-counter market where quoted market prices are not always available. Our derivatives at September 30, 2019 and December 31, 2018 consisted of interest rate swaps. See Note 10. "Derivatives" for additional information.

A summary of assets and liabilities at September 30, 2019 and December 31, 2018, respectively, measured at estimated fair value on a recurring basis, is as follows:

	September 30, 2019			
	Fair value	Level 1 inputs	Level 2 inputs	Level 3 inputs
Assets:				
Investment securities available for sale:				
Residential MBS[1]:				
Agency-backed	$ 1,602,821	$ —	$ 1,602,821	$ —
CMOs[2]/Other MBS	537,374	—	537,374	—
Total residential MBS	2,140,195	—	2,140,195	—
Other securities:				
Federal agencies	162,897	—	162,897	—
Corporate	304,773	—	304,773	—
State and municipal	453,554	—	453,554	—
Total other securities	921,224	—	921,224	—
Total available for sale securities	3,061,419	—	3,061,419	—
Swaps	84,989	—	84,989	—
Total assets	$ 3,146,408	$ —	$ 3,146,408	$ —
Liabilities:				
Swaps	$ (26,145)	$ —	$ (26,145)	$ —
Total liabilities	$ (26,145)	$ —	$ (26,145)	$ —

	December 31, 2018			
	Fair value	Level 1 inputs	Level 2 inputs	Level 3 inputs
Assets:				
Investment securities available for sale:				
Residential MBS[1]:				
Agency-backed	$ 2,268,851	$ —	$ 2,268,851	$ —
CMOs[2]/Other MBS	574,770	—	574,770	—
Total residential MBS	2,843,621	—	2,843,621	—
Federal agencies	273,973	—	273,973	—
Corporate bonds	527,964	—	527,964	—
State and municipal	225,004	—	225,004	—
Total other securities	1,026,942	—	1,026,942	—
Total available for sale securities	3,870,563	—	3,870,563	—
Swaps	18,215	—	18,215	—
Total assets	$ 3,888,778	$ —	$ 3,888,778	$ —
Liabilities:				
Swaps	$ (13,001)	$ —	$ (13,001)	$ —
Total liabilities	$ (13,001)	$ —	$ (13,001)	$ —

[1] Residential MBS are debt securities whose cash flows come from residential mortgage and consumer loans, such as mortgages and HELOCs. A residential MBS is comprised of a pool of mortgage loans created by financial institutions, including governmental agencies. The cash flows from each mortgage loan included in the pool are structured through a special purpose entity into various classes and tranches, which then issues securities backed by those cash flows to investors.

[2] CMOs are debt securities that are collateralized by a specific pool of residential mortgage loans, in which the issuer of the CMOs can direct the payments of principal and interest received on the underlying collateral to achieve specific investor cash flow objectives. The Bank generally acquires planned-amortization class securities and CMOs with a sequential pay structure in order to manage the duration and extension risk inherent in these securities.

The following categories of financial assets are not measured at fair value on a recurring basis, but are subject to fair value adjustments in certain circumstances.

Loans Held for Sale

The estimated fair value of commercial loans originated and intended for sale approximates their carrying value as these loans are variable-rate loans that reprice frequently with no significant change in credit risk since origination. Residential loans held for sale are carried at the lower of cost or fair value, which is evaluated on a pool-level basis. Fair value is determined using quoted prices for similar assets, adjusted for specific attributes of that loan or other observable market data, such as outstanding commitments from third party investors.

Impaired Loans

We may record adjustments to the carrying value of loans based on fair value measurements, generally as partial charge-offs of the uncollectible portions of these loans. These adjustments also include certain impairment amounts for collateral dependent loans calculated in accordance with GAAP. Impairment 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 impairment amount applicable to that loan generally approximates the fair value of the loan. Real estate collateral is valued using independent appraisals or other indications of value based on recent comparable sales of similar properties or assumptions generally observable by market participants. However, due to the substantial judgment applied and limited volume of activity as compared to other assets, fair value is based on Level 3 inputs. Estimates of fair value used for collateral supporting commercial loans not collateralized by real estate generally are based on assumptions not observable in the market place and are also based on Level 3 inputs. Impaired loans subject to non-recurring fair value measurements were $93,413 and $100,998 at September 30, 2019 and December 31, 2018, respectively. Changes in fair value recognized as a charge-off on loans held by us were $18,220 and $10,477 for the nine months ended September 30, 2019 and 2018, respectively.

When an impaired loan is collateral dependent, we generally charge-off the difference between the recorded investment in the loan and the appraised value less cost to sell. A discount for estimated costs to dispose of the asset and overall marketability is used when estimating the amount of impairment.

A summary of impaired loans by type that resulted in a charge-off at September 30, 2019 and December 31, 2018, respectively, is set forth below:

	September 30, 2019			
	Fair value	Level 1 inputs	Level 2 inputs	Level 3 inputs
Traditional C&I	$ 14,718	$ —	$ —	$ 14,718
Asset-based lending	18,609	—	—	18,609
CRE	12,665	—	—	12,665
Multi-family	1,194	—	—	1,194
Residential mortgage	2,951	—	—	2,951
Total impaired loans measured at fair value	$ 50,137	$ —	$ —	$ 50,137

	December 31, 2018			
	Fair value	Level 1 inputs	Level 2 inputs	Level 3 inputs
Traditional C&I	$ 28,780	$ —	$ —	$ 28,780
CRE	10,725	—	—	10,725
Multi-family	1,210	—	—	1,210
Residential mortgage	769	—	—	769
Total impaired loans measured at fair value	$ 41,484	$ —	$ —	$ 41,484

Mortgage Servicing Rights

We utilize the amortization method to account for mortgage servicing rights, which are amortized on a periodic basis, and reported with other assets in the consolidated balance sheets at the lower of amortized cost or fair value. To estimate the fair value of servicing rights, we utilize a third-party that considers the market prices for similar assets and the present value of expected future cash flows associated with the mortgage servicing rights. Mortgage servicing rights are evaluated for impairment based upon the fair value of the rights as compared to the carrying amount. If the carrying amount of an individual tranche exceeds fair value, impairment is recorded on that tranche so that the servicing asset is carried at fair value. Assumptions utilized to calculate fair value include estimates of the cost of servicing, loan default rates, an appropriate discount rate and prepayment speeds. The determination of fair value of servicing rights relies upon Level 3 inputs.

At September 30, 2019, the assumption for constant prepayment rates (“CPR”) ranged from 8.87% to 21.33%, with a weighted average CPR of 10.76%, and the assumption for market discount rate ranged from 9.50% to 20.00%, with a weighted average market discount rate of 9.85%. At December 31, 2018, the CPR assumption ranged from 7.98% to 24.07% with a weighted average CPR of 8.54%, and the assumption for market discount rate ranged from 9.00% to 20.00% with a weighted average market discount rate of 9.60% The fair value of mortgage servicing rights at September 30, 2019 and December 31, 2018 was $8,983 and $11,715, respectively.

Other Real Estate Owned (Assets Taken in Foreclosure of Defaulted Loans)

Other real estate owned is initially recorded at fair value less costs to sell when acquired, which establishes a new cost basis. These assets are subsequently accounted for at the lower of cost or fair value, less costs to sell, and are primarily comprised of commercial and residential real estate property. Upon initial recognition, other real estate owned is re-measured and reported at fair value through a charge-off to the allowance for loan losses based on the fair value of the underlying collateral. The fair value is generally determined using appraisals or other indications of value based on recent comparable sales of similar properties or assumptions generally observable in the market place. Adjustments are routinely made in the appraisal process by the independent appraisers to adjust for differences between comparable sales and income data available. The fair value is derived using Level 3 inputs. All appraisals are reviewed by officers in our credit department; and appraisals related to commercial properties are also reviewed by an external appraisal review consultant.

At September 30, 2019 and December 31, 2018, appraisals were discounted by 22.0%, which considers estimated costs to sell and overall marketability of the properties. OREO, subject to non-recurring fair value measurement, was $13,006 and $19,377 at September 30, 2019 and December 31, 2018, respectively. There were $742 and $553 of write-downs related to changes in fair value of OREO during the nine months ended September 30, 2019 and September 30, 2018, respectively.

Fair Value of Financial Instruments

GAAP requires disclosure of fair value information for those financial instruments for which it is practicable to estimate fair value, whether or not such financial instruments are recognized in the consolidated financial statements for interim and annual periods.

Quoted market prices are used to estimate fair values when those prices are available, although active markets do not exist for many types of financial instruments. Fair values for these instruments must be estimated by management using techniques such as discounted cash flow analysis and comparison to similar instruments. These estimates are highly subjective and require judgments regarding significant matters, such as the amount and timing of future cash flows and the selection of discount rates that appropriately reflect market and credit risks. Changes in these judgments often have a material effect on the fair value estimates. Since these estimates are made as of a specific point in time, they are susceptible to material near-term changes. Fair values disclosed in

accordance with GAAP do not reflect any premium or discount that could result from the sale of a large volume of a particular financial instrument, nor do they reflect possible tax ramifications or estimated transaction costs.

The following is a summary of the carrying amounts and estimated fair value of financial assets and liabilities (none of which were held for trading purposes) as of September 30, 2019:

	September 30, 2019			
	Carrying amount	Level 1 inputs	Level 2 inputs	Level 3 inputs
Financial assets:				
Cash and cash equivalents	$ 545,603	$ 545,603	$ —	$ —
Securities available for sale	3,061,419	—	3,061,419	—
Securities held to maturity	1,985,592	—	2,061,887	—
Loans held for sale	4,627	—	4,627	—
Portfolio loans, net	20,725,428	—	—	20,867,041
Accrued interest receivable on securities	33,815	—	33,815	—
Accrued interest receivable on loans	71,066	—	—	71,066
FHLB stock and FRB stock	276,929	—	—	—
Swaps	84,989	—	84,989	—
Financial liabilities:				
Non-maturity deposits	(18,664,876)	(18,664,876)	—	—
Certificates of deposit	(2,914,448)	—	(2,910,499)	—
FHLB borrowings	(2,800,907)	—	(2,802,337)	—
Other borrowings	(26,544)	—	(26,544)	—
Senior Notes	(173,652)	—	(174,420)	—
Subordinated Notes	(173,121)	—	(182,500)	—
Mortgage escrow funds	(84,595)	—	(84,595)	—
Accrued interest payable on deposits	(5,417)	—	(5,417)	—
Accrued interest payable on borrowings	(14,239)	—	(14,239)	—
Swaps	(26,145)	—	(26,145)	—

The following is a summary of the carrying amounts and estimated fair value of financial assets and liabilities (none of which were held for trading purposes) as of December 31, 2018:

	December 31, 2018			
	Carrying amount	Level 1 inputs	Level 2 inputs	Level 3 inputs
Financial assets:				
Cash and cash equivalents	$ 438,110	$ 438,110	$ —	$ —
Securities available for sale	3,870,563	—	3,870,563	—
Securities held to maturity	2,796,617	—	2,740,522	—
Loans held for sale	1,565,979	—	1,565,979	—
Portfolio loans, net	19,122,853	—	—	19,033,743
Accrued interest receivable on securities	38,722	—	38,722	—
Accrued interest receivable on loans	68,389	—	—	68,389
FHLB stock and FRB stock	369,690	—	—	—
Swaps	18,215	—	18,215	—
Financial liabilities:				
Non-maturity deposits	(18,737,217)	(18,737,217)	—	—
Certificates of deposit	(2,476,931)	—	(2,447,534)	—
FHLB borrowings	(4,838,772)	—	(4,821,652)	—
Other borrowings	(21,338)	—	(21,337)	—
Senior Notes	(181,130)	—	(179,786)	—
Subordinated Notes	(172,943)	—	(177,481)	—
Mortgage escrow funds	(72,891)	—	(64,074)	—
Accrued interest payable on deposits	(3,191)	—	(3,191)	—
Accrued interest payable on borrowings	(11,823)	—	(11,823)	—
Swaps	(13,001)	—	(13,001)	—

(19) Accumulated Other Comprehensive Income (Loss)

Components of accumulated other comprehensive income (loss) were as follows as of the dates shown below:

	September 30, 2019	December 31, 2018
Net unrealized holding gain (loss) on available for sale securities	$ 59,853	$ (103,756)
Related income tax (expense) benefit	(16,543)	28,679
Available for sale securities, net of tax	43,310	(75,077)
Net unrealized holding loss on securities transferred to held to maturity	(861)	(3,518)
Related income tax benefit	238	972
Securities transferred to held to maturity, net of tax	(623)	(2,546)
Net unrealized holding gain on retirement plans	3,381	15,900
Related income tax expense	(934)	(4,222)
Retirement plans, net of tax	2,447	11,678
Accumulated other comprehensive income (loss)	$ 45,134	$ (65,945)

The following table presents the changes in each component of accumulated other comprehensive income loss ("AOCI") for the three and nine months ended September 30, 2019 and 2018:

	Net unrealized holding gain (loss) on available for sale securities	Net unrealized holding (loss) gain on securities transferred to held to maturity	Net unrealized holding gain (loss) on retirement plans	Total
For the three months ended September 30, 2019				
Balance beginning of the period	$ 27,243	$ (709)	$ 13,812	$ 40,346
Other comprehensive gain before reclassification	21,047	—	—	21,047
Amounts reclassified from AOCI	(4,980)	86	(11,365)	(16,259)
Total other comprehensive income	16,067	86	(11,365)	4,788
Balance at end of period	$ 43,310	$ (623)	$ 2,447	$ 45,134
For the three months ended September 30, 2018				
Balance beginning of the period	$ (95,852)	$ (2,870)	$ (859)	$ (99,581)
Other comprehensive (loss) before reclassification	(19,613)	—	—	(19,613)
Amounts reclassified from AOCI	56	163	300	519
Total other comprehensive (loss) income	(19,557)	163	300	(19,094)
Balance at end of period	$ (115,409)	$ (2,707)	$ (559)	$ (118,675)
Location in consolidated income statements where reclassification from accumulated other comprehensive loss is included	Net loss on sale of securities	Interest income on securities	Other non-interest expense	

	Net unrealized holding (loss) gain on available for sale securities	Net unrealized holding (loss) gain on securities transferred to held to maturity	Net unrealized holding gain (loss) on retirement plans	Total
For the nine months ended September 30, 2019				
Balance beginning of the period	$ (75,077)	$ (2,546)	$ 11,678	$ (65,945)
Other comprehensive gain before reclassification	121,992	—	—	121,992
Securities reclassified from held to maturity to available for sale	(8,548)	—	—	(8,548)
Amounts reclassified from AOCI	4,943	1,923	(9,231)	(2,365)
Total other comprehensive income	118,387	1,923	(9,231)	111,079
Balance at end of period	$ 43,310	$ (623)	$ 2,447	$ 45,134
For the nine months ended September 30, 2018				
Balance beginning of the period	$ (22,324)	$ (2,678)	$ (1,164)	$ (26,166)
Reclassification of the stranded income tax effects from the enactment of the Tax Cuts and Jobs Act of 2017 from accumulated other comprehensive loss	(4,376)	(525)	(228)	(5,129)
Other comprehensive loss before reclassification	(94,611)	—	—	(94,611)
Amounts reclassified from AOCI	5,902	496	833	7,231
Total other comprehensive loss	(93,085)	(29)	605	(92,509)
Balance at end of period	$ (115,409)	$ (2,707)	$ (559)	$ (118,675)
Location in consolidated income statements where reclassification from AOCI is included	Net loss on sale of securities	Interest income on securities	Other non-interest expense	

(20) Recently Issued Accounting Standards Not Yet Adopted

ASU 2016-13, *"Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments"* ("ASU 2016-13"). ASU 2016-13 requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts and requires enhanced disclosures related to the significant estimates and judgments used in estimating credit losses, as well as the credit quality and underwriting standards of our loan portfolio. In addition, ASU 2016-13 amends the accounting for credit losses on available-for-sale debt securities and purchased financial assets with credit deterioration. ASU 2016-13 will be effective for us on January 1, 2020.

We have engaged various third parties to assist us in the development of models that we intend to utilize to calculate current expected credit losses ("CECL") estimates, model validation and overall CECL implementation preparedness. We have also evaluated and identified key controls and governance procedures that we intend to incorporate into our CECL estimation process.

Since the first quarter of 2019, we have prepared preliminary CECL estimates on a parallel path with our current allowance for loan losses methodology. Our CECL estimates are based on our current loan portfolio composition and expectations for future economic conditions, which are subject to change based on a variety of factors. We estimate that had CECL been effective at September 30, 2019, our allowance for credit losses ("ACL") would have been approximately $55,000 to $75,000 higher than the amount of actual reported allowance for loan losses as of that date. A significant portion of our portfolio loans were acquired in various merger transactions and are not part of our current allowance calculation to the extent they continue to be covered by existing purchase accounting adjustments, which contemplated life of loan loss estimates at acquisition. As part of the adoption of the CECL standard, we are also required to gross up our balance sheet for the credit component of the PCI loan purchase accounting adjustments related to loans acquired in various transactions. As of September 30, 2019, approximately $25,000 to $30,000 of the required ACL referenced above would have been due to PCI loan adjustment. We anticipate that the impact of CECL to our ACL related to our securities portfolio will not be material based on the current composition of our securities portfolio and our expectations for future economic conditions. We are still in the process of evaluating various aspects of the amount of ACL that will be required related to off-balance sheet items.

We will continue to prepare parallel calculations of our current allowance for loan losses and our CECL in the fourth quarter of 2019. We expect to finalize our documentation of the accounting policies related to the CECL standard and continue to review and refine the modeling and methodologies in preparation of adopting the standard in the first quarter of 2020.

The actual impact of the adoption of CECL will be recorded as a cumulative-effect adjustment to reflect any adjustment to our reserves through retained earnings and will be significantly influenced by the composition, characteristics and quality of our loan and securities portfolios as well as the prevailing economic conditions and forecasts as of the adoption date. In addition, the estimate above does not contemplate potential acquisitions of loan portfolios, such as the equipment finance loan portfolio acquisition we announced in October that is disclosed below in Note 21. "Subsequent Events - Acquisition of Commercial Equipment Finance Loans and Leases."

ASU 2018-13, *"Fair Value Measurement (Topic 820) - Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement"* ("ASU 2018-13"). ASU 2018-13 modifies the disclosure requirements on fair value measurements in Topic 820. The amendments in this update remove disclosures that no longer are considered cost beneficial, modify/clarify the specific requirements of certain disclosures, and add disclosure requirements identified as relevant. ASU 2018-13 will be effective for us on January 1, 2020, and is not expected to have a significant impact on our financial statements.

ASU 2018-14, *"Compensation - Retirement Benefits-Defined Benefit Plans-General (Subtopic 715-20)"* ("ASU 2018-14"). ASU 2018-14 amends and modifies the disclosure requirements for employers that sponsor defined benefit pension or other post-retirement plans. The amendments in this update remove disclosures that are no longer considered cost beneficial, clarify the specific requirements of disclosures, and add disclosure requirements identified as relevant. ASU 2018-14 will be effective for us on January 1, 2021, with early adoption permitted, and is not expected to have a significant impact on our financial statements.

ASU 2018-15, *"Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40) - Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract"* ("ASU 2018-15"). ASU 2018-15 clarifies certain aspects of ASU 2015-05,*"Customer's Accounting for Fees Paid in a Cloud Computing Arrangement,"* which was issued in April 2015. Specifically, ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). ASU 2018-15 does not affect the accounting for the service element of a hosting arrangement that is a service contract. ASU 2018-15 will be effective for us on January 1, 2020, and is not expected to have a significant impact on our financial statements.

ASU 2019-05, *"Financial Instruments - Credit Losses (Topic 326); Targeted Transition Relief"* ("ASU 2019-05"). ASU 2019-05 allows us to irrevocably elect, upon adoption of ASU 2016-13, the fair value option on financial instruments that (1) were previously recorded at amortized cost and (2) are within the scope of Topic 326 if the instruments are eligible for the fair value option under authoritative guidance for fair value. The fair value option election does not apply to held-to-maturity debt securities. We are required to make this election on an instrument-by-instrument basis. ASU 2019-05 is effective with CECL on January 1, 2020. We do not expect to elect the fair value option, and therefore, ASU 2019-05 is not expected to impact our financial statements.

(21) Subsequent Event - Acquisition of Commercial Equipment Finance Loans and Leases

On October 7, 2019, we announced the Bank entered into a definitive agreement to acquire a portfolio of commercial equipment finance loans and leases portfolio from Santander Bank, N.A. The balance of the portfolio was $843,000 at September 30, 2019 and had a weighted average tax-equivalent yield of approximately 4.3%, duration of approximately 3.5 years and an average relationship size of approximately $5,000. We anticipate the transaction will close in the fourth quarter of 2019 and that the portfolio will be fully integrated into our established equipment finance platform shortly thereafter.

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

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

We make statements in this report, and we may from time to time make other statements, regarding our outlook or expectations for earnings, revenues, expenses and/or other financial, business or strategic matters regarding or affecting us that are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are typically identified by words such as "believe," "expect," "anticipate," "intend," "outlook," "target," "estimate," "forecast,"

"project," by future conditional verbs such as "will," "should," "would," "could" or "may," or by variations of such words or by similar expressions. These statements are not historical facts, but instead represent our current expectations, plans or forecasts and are based on the beliefs and assumptions of management and the information available to management at the time that these disclosures were prepared.

Forward-looking statements are subject to numerous assumptions, risks (both known and unknown) and uncertainties, and other factors which change over time. Forward-looking statements speak only as of the date they are made. We do not assume any duty and do not undertake to update our forward-looking statements. Because forward-looking statements are subject to assumptions, risks, uncertainties, and other factors, actual results or future events could differ, possibly materially, from those that we anticipated in our forward-looking statements, and future results could differ materially from our historical performance.

The factors described herein in Part II. Item 1A. Risk Factors or otherwise described in our filings with the SEC, provide examples of risks, uncertainties and events that may cause our actual results to differ materially from the expectations expressed in our forward-looking statements, including, but not limited to:

- our ability to successfully implement growth and strategic initiatives, and to integrate and fully realize cost savings and other benefits we estimate in connection with acquisitions and limit business disruption arising therefrom;
- oversight of the Bank by the Consumer Financial Protection Bureau;
- adverse publicity, regulatory actions or litigation with respect to us or other well-known companies and the financial services industry in general and a failure to satisfy regulatory standards;
- the effects of and changes in monetary and policies of the Board of Governors of the Federal Reserve System and the U.S. Government, respectively;
- our ability to make accurate assumptions and judgments about an appropriate level of allowance for loan losses and the collectability of our loan portfolio, including changes in the level and trend of loan delinquencies and write-offs that may lead to increased losses and non-performing assets in our loan portfolio, result in our allowance for loan losses not being adequate to cover actual losses, and/or require us to materially increase our reserves;
- our use of estimates in determining the fair value of certain of our assets, which estimates may prove to be incorrect and result in significant declines in valuation;
- our ability to manage changes in market interest rates, which could adversely affect our financial condition and results of operations;
- our ability to capitalize on our substantial investments in our information technology and operational infrastructure and systems;
- changes in other economic, competitive, governmental, regulatory and technological factors affecting our markets, operations, pricing, products, services and fees; and
- our success at managing the risks involved in the foregoing and managing our business.

These risks and uncertainties should be considered in evaluating forward-looking statements, and undue reliance should not be placed on such statements.

LIBOR Transition and Phase-Out

We have a significant amount of loans, borrowings and swaps that are tied to LIBOR benchmark interest rates. It is anticipated that the LIBOR index will be phased out by the end of 2021 and the Federal Reserve Bank of New York has established the Secured Overnight Financing Rate ("SOFR") as its recommended alternative to LIBOR. We have created a sub-committee of our Asset Liability Management Committee to address LIBOR transition and phase-out issues. This committee includes personnel from legal, loan operations, risk, IT, credit, business intelligence, treasury, corporate banking, marketing, audit, accounting and corporate development. We are currently reviewing loan documentation, technology systems and procedures we will need to implement for the transition.

General

The following Management's Discussion and Analysis of Financial Condition and Results of Operations is intended to assist the reader in understanding our financial condition and results of operations. The following discussion and analysis should be read in conjunction with our unaudited consolidated financial statements and the accompanying notes included in Part I, Item 1 of this report and with our audited consolidated financial statements, including the accompanying notes, and Management's Discussion and Analysis of Financial Condition and Results of Operations included in our 2018 Form 10-K. Operating results discussed herein are not necessarily indicative of the results of any future period.

Tax equivalent adjustments are the result of increasing the income from tax exempt securities by an amount equal to the federal taxes that would be paid if the income were fully taxable based on a 21% effective income tax rate.

Dollar amounts in tables and the accompanying discussion that follows are stated in thousands, except for share and per share amounts and ratios.

Overview and Management Strategy
The Bank operates as a regional bank providing a broad offering of deposit, lending and wealth management products to commercial, consumer and municipal clients in our market area.

Our primary strategic objective is to drive positive operating leverage, which we believe will allow us to generate sustainable growth in revenues and earnings over time. We define operating leverage as the ratio of growth in adjusted total revenue divided by growth in adjusted total operating expenses (a reconciliation of non-GAAP financial measures is included beginning on page 73). To achieve this goal, we focus on the following initiatives:

- Target specific “high value” client segments and geographic markets in which we have competitive advantages.
- Deploy a single point of contact, relationship-based distribution strategy through our commercial banking teams and financial centers.
- Continuously expand and refine our delivery and distribution channels by rationalizing our investments in businesses that do not meet our risk-adjusted return targets and re-allocating our capital and resources to other businesses that are in-line with our commercial banking strategy and risk-adjusted return targets.
- Maximize efficiency through a technology enabled, low-cost operating platform and by controlling operating costs.
- Create a high productivity culture through differentiated compensation programs based on a pay-for-performance philosophy.
- Maintain strong risk management systems and proactively manage enterprise risk.

The Bank targets the following geographic markets: (i) the New York Metro Market, which includes Manhattan and Long Island; and (ii) the New York Suburban Market, which includes Rockland, Orange, Sullivan, Ulster, Putnam and Westchester Counties in New York and Bergen County in New Jersey. The Bank also originates loans and deposits in select markets nationally through our asset-based lending, payroll finance, warehouse lending, factored receivables, equipment finance and public sector finance businesses (collectively, our commercial finance businesses). We believe the Bank operates in an attractive footprint that presents us with significant opportunities to execute our strategy of targeting small and middle market commercial clients and affluent consumers.

We deploy a team-based distribution strategy in which clients are served by a focused and experienced group of relationship managers who are responsible for all aspects of the client relationship and delivery of our products and services. While the Astoria Merger resulted in substantial growth in 2018, our commercial banking teams also generated significant originations of loans and deposits. As of September 30, 2019, we had 30 commercial banking teams and 87 full service financial centers. We currently anticipate that we will increase our number of commercial banking teams by three to five annually, while reducing our financial centers as we continue to execute our real estate and financial center consolidation strategy.

Recent Developments
In the third quarter of 2019, we continued our balance sheet transition and generated strong commercial loan growth. Since December 31, 2018, we grew spot commercial loan balances by $1,996,610, which includes organic commercial loan originations of $1,524,732 and the fair value of commercial loans acquired in the Woodforest Acquisition of $471,878. The increase in commercial loans was offset by substantial run-off of residential mortgage loans. We plan to remain disciplined on new loan originations and portfolio acquisitions, focusing on diversified commercial asset classes where we can achieve our target risk-adjusted returns.

We have continued to generate a substantial amount of capital through retained earnings and have had limited balance sheet growth year to date given our balance sheet transition. In the third quarter of 2019, we repurchased 2,808,046 shares of common stock at a weighted average price of $19.14 per share, for total consideration of $53,739. Year to date through September 30, 2019, we have repurchased 15,312,694 shares of common stock for total consideration of $300,942. Under our approved repurchase program, we have 5,572,535 shares remaining for repurchase at September 30, 2019. We anticipate completing the repurchase program by the first quarter of 2020.

Our earnings performance for the third quarter of 2019 included reported net income available to common stockholders of $120,465, or $0.59 per diluted share, and adjusted net income available to common stockholders of $105,629, or $0.52 per diluted share. Our reported operating efficiency ratio was 38.7% and our adjusted operating efficiency ratio was 39.1%. Our continued balance sheet transition and strong operating efficiency resulted in a reported return on average tangible assets of 1.71% and, an adjusted return on average tangible assets of 1.50%, a reported return on average tangible common stockholders' equity of 18.6% and an adjusted return on average tangible common stockholders' equity of 16.3%. Adjusted net income available to common stockholders, adjusted diluted EPS, reported operating efficiency ratio, adjusted operating efficiency ratio, reported return on average tangible assets, adjusted return on average tangible assets, reported return on average tangible common stockholders' equity and adjusted return on average tangible common stockholders' equity are non-GAAP financial measures that are reconciled to our GAAP results beginning on page 73.

A significant component of our strategy includes repositioning our earning assets to create a more optimal balance sheet. As of September 30, 2019, our total loan portfolio was $20,830,163, of which 50.0% were commercial mortgages consisting of CRE loans, multi-family loans and ADC loans; 37.4% were C&I loans, which includes our traditional C&I and our commercial finance business lines; and 12.6% consisted of residential mortgage and consumer loans. Residential mortgage portfolio balances declined $463,843 in the first nine months of 2019 due mainly to increased loan prepayment activity. This decrease is net of the reclassification of $128,833 of residential mortgage loans we transferred from held for sale to portfolio loans. (As part of our balance sheet repositioning in the first half of 2019, we sold $1,409,334 of residential mortgage loans that were held for sale at December 31, 2018.) We intend to replace the run-off of residential mortgage loans with more diversified commercial loans originated through our commercial banking teams, our commercial finance business lines, and through acquisitions. Longer-term, we are targeting a loan composition of approximately 45% C&I loans, 45% commercial mortgage loans, and 10% residential mortgage and consumer loans, which includes HELOCs and other loans to individuals. To accelerate the transition and growth of our balance sheet, we will continue to evaluate potential acquisitions of commercial loan portfolios and other assets that meet our risk-adjusted return criteria, similar to the Woodforest Acquisition. As potential acquisition opportunities arise, we may reduce or divest a portion of our residential mortgage loans and investment securities.

Total deposits were $21,579,324 at September 30, 2019 compared to $21,214,148 at December 31, 2018. In July 2019, we began marketing our new digital bank under the brand Brio Direct and briodirectbanking.com. As of September 30, 2019, we had gathered a total of $102,117 of deposits, which were mainly generated in September. We anticipate we will be able to increase the number of accounts and balances in the fourth quarter of 2019. All of the deposits were concentrated in savings accounts and short-term certificate deposit products, which gives us pricing flexibility in response to changes in market interest rates.

We are constantly evaluating opportunities to make our business and operations more profitable. To that end, we executed several corporate actions during the third quarter of 2019. First, we completed the restructuring of the BOLI program we acquired in the Astoria Merger. The restructuring consisted mainly of diversifying the investment asset classes available under the program and a reduction in fees and other charges. Our total BOLI income was $8,066 in the quarter, and we anticipate BOLI income will be in a range of $5,000 to $6,000 per quarter going forward. Second, we completed the termination of the Astoria defined benefit pension plan, and recorded a net pre-tax gain of $12,097. Lastly, on October 7, 2019, we announced we have entered into a definitive agreement to acquire $843,000 of middle market commercial equipment finance loans and leases, which will augment our loan originations and accelerate our balance sheet and loan portfolio repositioning. We anticipate we will initially fund the acquisition through a combination of securities sales and borrowings. The transaction is expected to close in the fourth quarter of 2019.

We have consolidated 26 financial centers and two back-office locations over the past twelve months, including 19 financial centers in the first nine months of 2019. At September 30, 2019, we operated 87 financial centers. We are targeting a total financial center count below 80 in 2020. We are also executing a back-office real estate consolidation strategy with the objective of reducing our real estate footprint and consolidating personnel into centralized locations. We anticipate the consolidation of one financial center in the the fourth quarter of 2019. Since September 30, 2018, our total full time equivalents ("FTEs") have decreased by 270 and were 1,689 at September 30, 2019. Our annualized adjusted run-rate of operating expenses in the third quarter of 2019 was $403,365, which was below our target of $415,000 to $420,000 for the full year 2019.

Critical Accounting Policies

Our accounting and reporting policies are prepared in accordance with GAAP and conform to general practices within the banking industry. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. While we base estimates on historical experience, current information and other factors deemed to be relevant, actual results could differ from those estimates. We consider accounting estimates to be critical to reported financial results if (i) the accounting estimate requires management to make assumptions about matters that are highly uncertain; and (ii) different estimates that management reasonably could have used for the accounting estimate in the current period, or changes in the accounting estimate that are reasonably likely to occur from period to period, could have a material impact on our financial statements. Accounting policies related to the allowance

for loan losses, business combinations, goodwill, trade names and other intangible assets, and deferred income taxes are considered to be critical, as these policies involve considerable subjective judgment and estimation by management. For additional information regarding critical accounting policies, refer to Note 1. "Basis of Financial Statement Presentation" in the notes to consolidated financial statements included elsewhere in this report and the sections captioned "Critical Accounting Policies" and "Allowance for Loan Losses" in Management's Discussion and Analysis of Financial Condition and Results of Operations included in the 2018 Form 10-K. There have been no significant changes in our application of critical accounting policies for the nine months ended September 30, 2019.

Financial Impact of Recent Acquisitions

The balances of Advantage Funding were included in our consolidated balance sheet as of April 2, 2018, and the operating results of Advantage Funding were included in our results of operations from that day forward.

The balances of the commercial loan portfolio acquired from Woodforest were included in our consolidated balance sheets as of February 28, 2019, and the operating results from those assets were included in our results of operations from that day forward.

Selected financial condition data, statement of operations data, per share data, performance ratios, capital ratios, and asset quality data and ratios for the comparable periods are presented as follows:

	At or for the three months ended September 30,		At or for the nine months ended September 30,	
	2019	2018	2019	2018
End of period balances:				
Total securities	$ 5,047,011	$ 6,685,972	$ 5,047,011	$ 6,685,972
Portfolio loans	20,830,163	20,533,214	20,830,163	20,533,214
Total assets	30,077,665	31,261,265	30,077,665	31,261,265
Non-interest bearing deposits	4,586,632	4,651,369	4,586,632	4,651,369
Interest bearing deposits	16,992,692	16,804,688	16,992,692	16,804,688
Total deposits	21,579,324	21,456,057	21,579,324	21,456,057
Borrowings	3,174,224	4,825,855	3,174,224	4,825,855
Stockholders' equity	4,520,967	4,438,303	4,520,967	4,438,303
Tangible common stockholders' equity ("TCE")[1]	2,610,205	2,554,495	2,610,205	2,554,495
Average balances:				
Total securities	$ 5,439,886	$ 6,774,712	$ 5,882,672	$ 6,710,104
Total loans[2]	20,302,887	20,386,994	20,208,934	20,123,704
Total assets	29,747,603	31,036,026	30,066,118	30,686,808
Non-interest bearing deposits	4,225,258	4,174,908	4,247,401	4,036,303
Interest bearing deposits	16,524,627	16,940,446	16,839,419	16,822,651
Total deposits and mortgage escrow	20,749,885	21,115,354	21,086,820	20,858,954
Borrowings	3,872,840	5,052,752	3,959,051	5,029,411
Stockholders' equity	4,489,167	4,397,823	4,443,112	4,316,455
TCE[1]	2,575,199	2,506,198	2,533,759	2,430,260
Selected operating data:				
Total interest and dividend income	$ 295,209	$ 309,025	$ 907,066	$ 895,276
Total interest expense	71,888	65,076	216,400	170,743
Net interest income	223,321	243,949	690,666	724,533
Provision for loan losses	13,700	9,500	35,400	35,500
Net interest income after provision for loan losses	209,621	234,449	655,266	689,033
Total non-interest income	51,830	24,145	98,485	80,720
Total non-interest expense	106,455	111,773	348,387	348,448
Income before income tax expense	154,996	146,821	405,364	421,305
Income tax expense	32,549	27,171	85,020	88,542
Net income	122,447	119,650	320,344	332,763
Preferred stock dividend	1,982	1,993	5,958	5,988
Net income available to common stockholders	$ 120,465	$ 117,657	$ 314,386	$ 326,775
Per share data:				
Reported basic EPS (GAAP)	$ 0.59	$ 0.52	$ 1.51	$ 1.45
Reported diluted EPS (GAAP)	0.59	0.52	1.51	1.45
Adjusted diluted EPS[1] (non-GAAP)	0.52	0.51	1.53	1.48
Dividends declared per common share	0.07	0.07	0.21	0.21
Book value per share	21.66	19.07	21.66	19.07
Tangible book value per common share[1]	12.90	11.33	12.90	11.33

See legend on following page.

	At or for the three months ended September 30,		At or for the nine months ended September 30,	
	2019	2018	2019	2018
Common shares outstanding:				
Shares outstanding at period end	202,392,884	225,446,089	202,392,884	225,446,089
Weighted average shares basic	203,090,365	225,088,511	207,685,051	224,969,121
Weighted average shares diluted	203,566,582	225,622,895	208,108,575	225,504,463
Other data:				
Full time equivalent employees at period end	1,689	1,959	1,689	1,959
Financial centers at period end	87	113	87	113
Performance ratios:				
Return on average assets	1.61%	1.50%	1.40%	1.42%
Return on average equity	10.65	10.61	9.46	10.12
Reported return on average tangible assets[1]	1.71	1.59	1.49	1.51
Adjusted return on average tangible assets[1]	1.50	1.55	1.50	1.54
Reported return on average TCE[1]	18.56	18.63	16.59	17.98
Adjusted return on average TCE[1]	16.27	18.09	16.78	18.33
Reported operating efficiency[1]	38.7	41.7	44.1	43.3
Adjusted operating efficiency[1]	39.1	38.9	40.2	39.1
Net interest margin-GAAP	3.36	3.48	3.46	3.53
Net interest margin-tax equivalent[3]	3.42	3.54	3.51	3.59
Capital ratios (Company):				
Tier 1 leverage ratio	9.78%	9.68%	9.78%	9.68%
Common equity Tier 1 capital ratio	11.73	12.97	11.73	12.97
Tier 1 risk-based capital ratio	12.35	13.64	12.35	13.64
Total risk-based capital ratio	13.49	14.74	13.49	14.74
Tangible equity to tangible assets	9.71	9.12	9.71	9.12
Tangible common equity to tangible assets[1]	9.22	8.65	9.22	8.65
Regulatory capital ratios (Bank):				
Tier 1 leverage ratio	10.08%	10.10%	10.08%	10.10%
Tier 1 risk-based capital ratio and common equity Tier 1 capital ratio	12.73	14.23	12.73	14.23
Total risk-based capital ratio	13.99	15.50	13.99	15.50
Asset quality data and ratios:				
Allowance for loan losses	$ 104,735	$ 91,365	$ 104,735	$ 91,365
Non-performing loans (“NPLs”)	190,966	185,222	190,966	185,222
Non-performing assets (“NPAs”)	203,972	207,957	203,972	207,957
Net charge-offs	13,629	4,161	26,342	22,042
NPAs to total assets	0.68%	0.67%	0.68%	0.67%
NPLs to total loans[4]	0.92	0.90	0.92	0.90
Allowance for loan losses to non-performing loans	54.84	49.33	54.84	49.33
Allowance for loan losses to total loans[4]	0.50	0.44	0.50	0.44
Annualized net charge-offs to average loans	0.27	0.08	0.17	0.15

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1 See a reconciliation of as reported financial measures to as adjusted (non-GAAP) financial measures beginning on page 73 below under the caption “Supplemental Reporting of Non-GAAP Financial Measures.”

2 Includes loans held for sale but excludes the allowance for loan losses.

3 Tax equivalent basis represents interest income earned on municipal securities divided by the applicable Federal tax rate of 21%.

4 Total loans excludes loans held for sale.

Results of Operations

For the three months ended September 30, 2019, we reported net income available to common stockholders of $120,465, or $0.59 per diluted common share, compared to net income available to common stockholders of $117,657, or $0.52 per diluted common share, for the three months ended September 30, 2018. The change in our results between the periods was mainly due to the following:

- average commercial loans for the three months ended September 30, 2019 were $17,596,552, which represented an increase of $2,071,541 over the year earlier period. The increase in the average balance of commercial loans was a main driver of the increase of $26,865 in interest income earned on commercial loans between the periods;

- in the third quarter of 2019, we completed the termination and settlement of the legacy Astoria pension plan and recorded a gain of $12,097. The gain on plan termination was mainly due to strong performance in the actual return on plan assets in 2019 and a better than expected bid outcome on the annuities acquired from a third-party insurance carrier;

- we completed the restructuring of the BOLI assets acquired in the Astoria Merger, which mainly involved diversifying the underlying investment assets and reducing the fees related to the program. We did not modify the underlying insurance policies. As a result of the restructuring, BOLI income increased $4,333 compared to the three months ended September 30, 2018; and

- average earning assets decreased by $1,445,539 due to loans and securities sales that were completed in the first quarter of 2019, which also resulted in a corresponding decrease in total borrowings.

The changes discussed above, together with strong controls over operating expenses offset a decline in net interest income of $20,628 and resulted in the increase in net income available to common stockholders between the periods. Through our common stock repurchase program, we have reduced our average diluted common shares outstanding by 22,056,313 over the past 12 months.

For the nine months ended September 30, 2019, we reported net income available to common stockholders of $314,386, or $1.51 per diluted common share, compared to net income available to common stockholders of $326,775, or $1.45 per diluted common share, for the nine months ended September 30, 2018. The change in our results between the periods was mainly due to a decline in net interest income of $33,867 and an impairment charge we recorded in the second quarter of 2019 of $14,398 to reduce the carrying value of leasehold improvements, land and buildings and the early termination of several facilities leases. These items were substantially offset by the gains discussed above, our balance sheet transition efforts, and strong controls over operating expenses.

Details of the changes in the various components of net income available to common stockholders are further discussed below.

Net Interest Income is the difference between interest income on earning assets, such as loans and securities, and interest expense on liabilities, such as deposits and borrowings, which are used to fund those assets. Net interest income is our largest source of revenue, representing 81.2% and 91.0% of total revenue in the three months ended September 30, 2019 and 2018, respectively. Net interest margin is the ratio of taxable equivalent net interest income to average earning assets for the period. The level of interest rates and the volume and mix of earning assets and interest bearing liabilities impact net interest income and net interest margin.

We are primarily funded by core deposits. Core deposits include retail, commercial and municipal transaction deposits, money market and savings accounts and certificates of deposit including reciprocal brokered deposits through the Promontory Interfinancial Network, but excluding other brokered and wholesale deposits. As of September 30, 2019, we considered 94.1% of our total deposits to be core deposits compared to 95.3% at September 30, 2018. Non-interest bearing demand deposits were $4,586,632 of our total deposits at September 30, 2019, compared to $4,651,369 at September 30, 2018. We believe that our low cost deposit funding base, combined with the continued transition of our loan portfolio and earning assets, will have a positive impact on our net interest income and net interest margin over time.

The following tables set forth average balance sheets, interest, average yields and costs, and certain other information for the periods indicated. All average balances are daily average balances. Non-accrual loans were included in the computation of average balances, but have been reflected in the table as loans carrying a zero yield. The yields set forth below include the effect of deferred fees, discounts and premiums that are amortized or accreted to interest income or expense.

	For the three months ended September 30,					
	2019			2018		
	Average balance	Interest	Yield/Rate	Average balance	Interest	Yield/Rate
Interest earning assets:						
Traditional C&I and commercial finance loans	$ 7,497,861	$ 95,638	5.06%	$ 6,102,184	$ 81,296	5.29%
CRE (includes multi-family)	9,711,619	118,315	4.83	9,170,117	107,292	4.64
ADC	387,072	5,615	5.76	252,710	4,115	6.46
Commercial loans	17,596,552	219,568	4.95	15,525,011	192,703	4.92
Consumer loans	262,234	3,799	5.75	330,061	4,651	5.59
Residential mortgage loans	2,444,101	31,047	5.08	4,531,922	59,857	5.28
Total net loans[1]	20,302,887	254,414	4.97	20,386,994	257,211	5.01
Securities taxable	3,189,027	21,977	2.73	4,193,910	29,765	2.82
Securities tax exempt	2,250,859	17,077	3.03	2,580,802	19,296	2.99
Interest earning deposits	304,820	1,802	2.35	278,450	1,038	1.48
FRB and FHLB stock	306,801	3,525	4.56	359,777	5,767	6.36
Total securities and other earning assets	6,051,507	44,381	2.91	7,412,939	55,866	2.99
Total interest earning assets	26,354,394	298,795	4.50	27,799,933	313,077	4.47
Non-interest earning assets	3,393,209			3,236,093		
Total assets	$ 29,747,603			$ 31,036,026		
Interest bearing liabilities:						
Interest bearing demand deposits	$ 4,096,744	$ 11,120	1.08%	$ 4,286,278	$ 9,717	0.90%
Savings deposits[2]	2,375,882	1,913	0.32	2,678,662	1,651	0.24
Money market deposits	7,341,822	22,426	1.21	7,404,208	16,547	0.89
Certificates of deposit	2,710,179	12,871	1.88	2,571,298	8,059	1.24
Total interest bearing deposits	16,524,627	48,330	1.16	16,940,446	35,974	0.84
Senior Notes	173,750	1,369	3.15	201,894	1,619	3.21
Other borrowings	3,526,009	19,832	2.23	4,678,011	25,129	2.13
Subordinated Notes	173,081	2,357	5.45	172,847	2,354	5.45
Total borrowings	3,872,840	23,558	2.41	5,052,752	29,102	2.29
Total interest bearing liabilities	20,397,467	71,888	1.40	21,993,198	65,076	1.17
Non-interest bearing deposits	4,225,258			4,174,908		
Other non-interest bearing liabilities	635,711			470,097		
Total liabilities	25,258,436			26,638,203		
Stockholders' equity	4,489,167			4,397,823		
Total liabilities and stockholders' equity	$ 29,747,603			$ 31,036,026		
Net interest rate spread[3]			3.10%			3.30%
Net interest earning assets[4]	$ 5,956,927			$ 5,806,735		
Net interest margin - tax equivalent		226,907	3.42%		248,001	3.54%
Less tax equivalent adjustment		(3,586)			(4,052)	
Net interest income		223,321			243,949	
Accretion income on acquired loans		17,973			26,574	
Tax equivalent net interest margin excluding accretion income on acquired loans		$ 208,934	3.15%		$ 221,427	3.16%
Ratio of interest earning assets to interest bearing liabilities	129.2%			126.4%		

See legend on following page.

STERLING BANCORP AND SUBSIDIARIES

	For the nine months ended September 30,					
	2019			2018		
	Average balance	Interest	Yield/Rate	Average balance	Interest	Yield/Rate
Interest earning assets:						
Traditional C&I and commercial finance loans	$ 7,093,144	$ 281,808	5.30%	$ 5,653,784	$ 220,175	5.20%
CRE (includes multi-family)	9,528,986	348,926	4.90	9,113,324	318,583	4.67
ADC	326,597	14,619	5.98	255,894	11,216	5.86
Commercial loans	16,948,727	645,353	5.09	15,023,002	549,974	4.89
Consumer loans	279,131	11,909	5.70	345,216	14,174	5.49
Residential mortgage loans	2,981,076	115,730	5.18	4,755,486	181,931	5.10
Total net loans[1]	20,208,934	772,992	5.11	20,123,704	746,079	4.96
Securities taxable	3,489,830	74,456	2.85	4,108,186	85,856	2.79
Securities tax exempt	2,392,842	54,140	3.02	2,601,918	58,176	2.98
Interest earning deposits	308,561	4,597	1.99	292,096	2,649	1.21
FRB and FHLB stock	311,176	12,250	5.26	341,380	14,733	5.77
Total securities and other earning assets	6,502,409	145,443	2.99	7,343,580	161,414	2.94
Total interest earning assets	26,711,343	918,435	4.60	27,467,284	907,493	4.42
Non-interest earning assets	3,354,775			3,219,524		
Total assets	$ 30,066,118			$ 30,686,808		
Interest bearing liabilities:						
Interest bearing demand deposits	$ 4,275,899	$ 34,648	1.08%	$ 4,085,595	$ 22,269	0.73%
Savings deposits[2]	2,427,778	5,580	0.31	2,836,805	4,674	0.22
Money market deposits	7,550,812	68,061	1.21	7,378,522	40,327	0.73
Certificates of deposit	2,584,930	34,165	1.77	2,521,729	21,375	1.13
Total interest bearing deposits	16,839,419	142,454	1.13	16,822,651	88,645	0.70
Senior Notes	175,676	4,146	3.16	252,455	7,147	3.79
Other borrowings	3,610,353	62,731	2.32	4,604,165	67,891	1.97
Subordinated Notes	173,022	7,069	5.45	172,791	7,060	5.45
Total borrowings	3,959,051	73,946	2.50	5,029,411	82,098	2.18
Total interest bearing liabilities	20,798,470	216,400	1.39	21,852,062	170,743	1.04
Non-interest bearing deposits	4,247,401			4,036,303		
Other non-interest bearing liabilities	577,135			481,988		
Total liabilities	25,623,006			26,370,353		
Stockholders' equity	4,443,112			4,316,455		
Total liabilities and stockholders' equity	$ 30,066,118			$ 30,686,808		
Net interest rate spread[3]			3.21%			3.38%
Net interest earning assets[4]	$ 5,912,873			$ 5,615,222		
Net interest margin - tax equivalent		702,035	3.51%		736,750	3.59%
Less tax equivalent adjustment		(11,369)			(12,217)	
Net interest income		690,666			724,533	
Accretion income on acquired loans		66,875			84,925	
Tax equivalent net interest margin excluding accretion income on acquired loans		$ 635,160	3.18%		$ 651,825	3.17%
Ratio of interest earning assets to interest bearing liabilities	128.4%			125.7%		

[1] Average balances include loans held for sale and non-accrual loans. Includes the effect of net deferred loan origination fees, amortization of premiums, accretion of discounts and costs and non-accrual loans. Interest includes prepayment fees and late charges.

2 Includes club accounts and interest bearing mortgage escrow balances.

3 Net interest rate spread represents the difference between the tax equivalent yield on average interest earning assets and the cost of average interest bearing liabilities.

4 Net interest earning assets represents total interest earning assets less total interest bearing liabilities.

The following tables present the dollar amount of changes in interest income (on a fully tax equivalent basis) and interest expense for the major categories of our interest earning assets and interest bearing liabilities for the periods indicated. Information is provided for each category of interest earning assets and interest bearing liabilities with respect to (i) changes attributable to changes in volume (*i.e.,* changes in average balances multiplied by the prior period average rate); and (ii) changes attributable to changes in rate (*i.e.,* changes in average rate multiplied by prior period average balances). For purposes of this table, changes attributable to both rate and volume, which cannot be segregated, have been allocated proportionately to the change due to volume and the change due to rate.

	For the three months ended September 30, 2019 vs 2018		
	Increase / (Decrease) due to		Total increase / (decrease)
	Volume	Rate	
Interest earning assets:			
Traditional C&I and commercial finance loans	$ 17,844	$ (3,502)	$ 14,342
CRE (includes multi-family)	6,702	4,321	11,023
ADC	1,987	(487)	1,500
Commercial loans	26,533	332	26,865
Consumer loans	(981)	129	(852)
Residential mortgage loans	(26,621)	(2,189)	(28,810)
Total loans	(1,069)	(1,728)	(2,797)
Securities taxable	(6,873)	(915)	(7,788)
Securities tax exempt	(2,480)	261	(2,219)
Interest earning deposits	108	656	764
FRB and FHLB stock	(767)	(1,475)	(2,242)
Total interest earning assets	(11,081)	(3,201)	(14,282)
Interest bearing liabilities:			
Interest bearing demand deposits	(450)	1,853	1,403
Savings deposits[1]	(206)	468	262
Money market deposits	(139)	6,018	5,879
Certificates of deposit	456	4,356	4,812
Total interest bearing deposits	(339)	12,695	12,356
Senior Notes	(220)	(30)	(250)
Other borrowings	(6,442)	1,145	(5,297)
Subordinated Notes	3	—	3
Total borrowings	(6,659)	1,115	(5,544)
Total interest bearing liabilities	(6,998)	13,810	6,812
Change in tax equivalent net interest income	(4,083)	(17,011)	(21,094)
Less tax equivalent adjustment	(529)	63	(466)
Change in net interest income	$ (3,554)	$ (17,074)	$ (20,628)

See legend on following page.

	For the nine months ended September 30, 2019 vs 2018		
	Increase / (Decrease) due to		Total increase / (decrease)
	Volume	Rate	
Interest earning assets:			
Traditional C&I and commercial finance loans	$ 56,890	$ 4,743	$ 61,633
CRE (includes multi-family)	15,014	15,329	30,343
ADC	3,173	230	3,403
Commercial loans	75,077	20,302	95,379
Consumer loans	(2,792)	527	(2,265)
Residential mortgage loans	(69,006)	2,805	(66,201)
Total loans	3,279	23,634	26,913
Securities taxable	(13,201)	1,801	(11,400)
Securities tax exempt	(4,792)	756	(4,036)
Interest earning deposits	157	1,791	1,948
FRB and FHLB stock	(1,242)	(1,241)	(2,483)
Total interest earning assets	(15,799)	26,741	10,942
Interest bearing liabilities:			
Interest bearing demand deposits	1,096	11,283	12,379
Savings deposits[1]	(759)	1,665	906
Money market deposits	951	26,783	27,734
Certificates of deposit	542	12,248	12,790
Total interest bearing deposits	1,830	51,979	53,809
Senior Notes	(1,948)	(1,053)	(3,001)
Other borrowings	(16,101)	10,941	(5,160)
Subordinated Notes	9	—	9
Total borrowings	(18,040)	9,888	(8,152)
Total interest bearing liabilities	(16,210)	61,867	45,657
Change in tax equivalent net interest income	411	(35,126)	(34,715)
Less tax equivalent adjustment	(1,036)	188	(848)
Change in net interest income	$ 1,447	$ (35,314)	$ (33,867)

[1] Includes club accounts and interest bearing mortgage escrow balances.

Tax equivalent net interest income decreased $21,094 to $226,907 for the three months ended September 30, 2019, compared to $248,001 for the three months ended September 30, 2018. The decrease was mainly due to a decrease in average interest earning assets of $1,445,539, which was mainly due to the sale of residential mortgage loans and investment securities during 2019. The tax equivalent net interest margin decreased 12 basis points to 3.42% in the third quarter of 2019 from 3.54% in the third quarter of 2018. The yield on interest earning assets was 4.50% compared to 4.47% for the three months ended September 30, 2018, the increase between the periods was mainly due to our balance sheet transition as higher yielding commercial loans comprise a larger percentage of total loans than the prior year, partially offset by a decrease in market rates of interest on adjustable rate loans. The percentage of loans to average earning assets increased to 77.0% for the three months ended September 30, 2019 compared to 73.3% for the three months ended September 30, 2018. The cost of interest bearing liabilities increased to 1.40% for the three months ended September 30, 2019 compared to 1.17% for the three months ended September 30, 2018, which was due mainly to higher interest rates paid on deposits and borrowings due to increases in market interest rates.

Tax equivalent net interest income decreased $34,715 to $702,035 for the nine months ended September 30, 2019, compared to $736,750 for the nine months ended September 30, 2018. The decrease was mainly due to an increase in interest expense on interest bearing liabilities, which was $216,400 for the nine months ended September 30, 2019 compared to $170,743 for the nine months ended September 30, 2018, and a decrease of $755,941 in average interest earning assets. The tax equivalent net interest margin

decreased eight basis points to 3.51% for the nine months ended September 30, 2019 from 3.59% in the nine months ended September 30, 2018. The yield on interest earning assets was 4.60% compared to 4.42% for the nine months ended September 30, 2018, which was mainly due to a greater proportion of higher yielding commercial loans to total loans. The percentage of loans to average earning assets increased to 75.7% for the nine months ended September 30, 2019 compared to 73.3% for the nine months ended September 30, 2018. The cost of interest bearing liabilities increased to 1.39% for the nine months ended September 30, 2019 compared to 1.04% for the nine months ended September 30, 2018, mainly due to increases in market interest rates between the periods.

The average balance of loans outstanding decreased $84,107 for the three months ended September 30, 2019 compared to the three months ended September 30, 2018. The decrease was mainly due to the sale and repayments of residential mortgage loans, which resulted in a decline of $2,087,821 in the average daily balance of residential loans between the periods. In addition, consumer loans declined by $67,827. These declines were substantially offset by organic growth generated by our commercial banking teams and loan portfolio acquisitions, which resulted in an increase in the average balance of commercial loans of $2,071,541 between the periods. The average yield on loans was 4.97% compared to 5.01% in the comparable year ago period. The decrease in the yield on loans was mainly due to a decline in accretion income on acquired loans, which was $17,973 for the three months ended September 30, 2019 compared to $26,574 for the three months ended September 30, 2018.

The average balance of loans outstanding increased $85,230 in the nine months ended September 30, 2019, compared to the nine months ended September 30, 2018 as the growth in average balance of commercial loans was greater than the decline in the average balance of residential mortgage and consumer loans. The average yield on loans was 5.11% in the nine months ended September 30, 2019 compared to 4.96% in the comparable year ago period. The increase was mainly due to a greater percentage of commercial loans in the loan portfolio.

Interest income on traditional C&I and commercial finance loans increased $14,342 and was $95,638 for the three months ended September 30, 2019 compared to $81,296 for the three months ended September 30, 2018. This increase was mainly due to higher average loan balances as a result of organic loan growth and loan portfolio acquisitions. The yield on traditional C&I and commercial finance loans declined to 5.06% compared to 5.29% for the three months ended September 30, 2018. The decrease in yield was mainly due to the mix of business, as lower yielding mortgage warehouse and public sector finance loans were a substantial portion of the increase in the average balance between the periods and the decrease in market interest rates.

Interest income on traditional C&I and commercial finance loans increased $61,633 and was $281,808 in the nine months ended September 30, 2019 compared to $220,175 for the nine months ended September 30, 2018. This increase was mainly due to organic loan growth and loan portfolio acquisitions. The yield on traditional C&I and commercial finance loans increased to 5.30% compared to 5.20% in the nine months ended September 30, 2018. The increase in yield was mainly due to loans acquired in the Advantage Acquisition and Woodforest Acquisition.

Interest income on CRE loans and multi-family loans increased $11,023 to $118,315 for the three months ended September 30, 2019 compared to $107,292 for the three months ended September 30, 2018. The increase was mainly due to organic growth generated by our commercial banking teams. The yield on CRE and multi-family loans was 4.83% compared to 4.64% for the three months ended September 30, 2018. The increase in yield was mainly due to a change in portfolio mix, as the average balance of CRE loans grew and the average lower yielding multi-family loans declined.

Interest income on CRE loans and multi-family loans increased $30,343 to $348,926 in the nine months ended September 30, 2019 compared to $318,583 for the nine months ended September 30, 2018. The increase was mainly due to organic loan growth generated by our commercial banking teams. The yield on CRE and multi-family loans was 4.90% in the nine months ended September 30, 2019 compared to 4.67% in the nine months ended September 30, 2018. The increase in yield was mainly due to the same factors discussed in the three-month period.

Interest income on residential mortgage loans declined $28,810 to $31,047 for the three months ended September 30, 2019 compared to $59,857 for the three months ended September 30, 2018. The decrease was mainly due to a $2,087,821, or 46.1%, decline in the average balance of residential mortgage loans, which was driven by the residential mortgage loan sales completed in 2019 and continued run-off of the portfolio. The yield on residential mortgage loans decreased 20 basis points to 5.08% compared to 5.28% for the three months ended September 30, 2018. The decline in yield was mainly due to lower accretion income on acquired residential mortgage loans, which was $2,065 for the three months ended September 30, 2019 compared to $13,687 for the three months ended September 30, 2018.

Interest income on residential mortgage loans decreased $66,201 to $115,730 in the nine months ended September 30, 2019 compared to $181,931 for the nine months ended September 30, 2018. The decrease was mainly due to a $1,774,410 decline in the average balance of residential mortgage loans as a result of the loan sales described above. The yield on residential mortgage loans

increased to 5.18% compared to 5.10% for the nine months ended September 30, 2018. The yield on residential mortgage loans increased due to changes in market rates of interest on adjustable mortgage loans and income recorded on the repayments of certain PCI mortgage loans in 2019. Accretion income on acquired residential mortgage loans was $16,709 for the nine months ended September 30, 2019 compared to $28,222 for the nine months ended September 30, 2018.

Tax equivalent interest income on securities decreased $10,007 to $39,054 for the three months ended September 30, 2019, compared to $49,061 for the three months ended September 30, 2018. This was mainly the result of a decrease of $1,334,826 in the average balance of securities between the periods. The tax equivalent yield on securities decreased to 2.85% compared to 2.87% for the year earlier period. The decrease was mainly due to sales of corporate securities and accelerated repayments of mortgage backed securities, which increased premium amortization. The average balance of tax-exempt securities declined to $2,250,859, compared to $2,580,802 in the third quarter of 2018.

Tax equivalent interest income on securities decreased $15,436 to $128,596 in the nine months ended September 30, 2019, compared to $144,032 for the nine months ended September 30, 2018. This was mainly the result of a decrease of $827,432 in the average balance of securities between the periods. The tax equivalent yield on securities was 2.92% in the nine months ended September 30, 2019, compared to 2.87% in the nine months ended September 30, 2018. The increase in tax equivalent yield on securities was mainly due to higher market rates of interest on securities between the periods.

Average total deposits and mortgage escrow decreased $365,469 to $20,749,885 in the three months ended September 30, 2019, compared to $21,115,354 for the three months ended September 30, 2018. Average interest bearing deposits decreased $415,819 compared to the third quarter of 2018. Average non-interest bearing deposits increased to $4,225,258 in the three months ended September 30, 2019, compared to $4,174,908 in the three months ended September 30, 2018. The decrease in interest bearing deposits was mainly due to reducing interest rates on certain higher cost commercial and municipal deposit relationships, consistent with our strategy of reducing our cost of deposits. The average cost of interest bearing deposits was 1.16% in the third quarter of 2019 compared to 0.84% in the third quarter of 2018. The average cost of total deposits was 0.92% compared to 0.68% in the third quarter of 2018. The increase in the cost of deposits was mainly due to the increase in market interest rates and the competitive environment for deposits in the greater New York metropolitan region.

Average total deposits and mortgage escrow increased $227,866 to $21,086,820 in the nine months ended September 30, 2019, compared to $20,858,954 in the nine months ended September 30, 2018. Average interest bearing deposits increased $16,768 in the nine months ended September 30, 2019 compared to the nine months ended September 30, 2018. Average non-interest bearing deposits increased $211,098 to $4,247,401 in the nine months ended September 30, 2019, compared to $4,036,303 in the nine months ended September 30, 2018. These increases were mainly due to organic growth generated by our commercial banking teams and financial centers. The average cost of interest bearing deposits was 1.13% in the nine months ended September 30, 2019 compared to 0.70% in the nine months ended September 30, 2018. The average cost of total deposits was 0.90% in the nine months ended September 30, 2019 compared to 0.57% in the nine months ended September 30, 2018. The increase in the cost of deposits was mainly due to the same factors discussed above.

Average borrowings declined $1,179,912 to $3,872,840 in the three months ended September 30, 2019, compared to $5,052,752 in the same period a year ago. The decrease was mainly the result of a decline in residential mortgage loan balances and investment securities between the periods, as proceeds from the sales were used mainly to reduce borrowings. The average cost of borrowings was 2.41% for the third quarter of 2019, compared to 2.29% for the third quarter of 2018. Market interest rates on borrowings increased relative to the same quarter a year ago, which resulted in the increase in the cost of borrowings.

Average borrowings decreased $1,070,360 to $3,959,051 in the nine months ended September 30, 2019, compared to $5,029,411 in the same period a year ago. The decrease in average borrowings was due to the same factors as discussed in the three-month period. The average cost of borrowings was 2.50% for the nine months ended September 30, 2019 compared to 2.18% in the nine months ended September 30, 2018. The increase was mainly due to the same factors as discussed in the three-month period.

Provision for Loan Losses. The provision for loan losses is determined as the amount to be added to the allowance for loan losses after net charge-offs have been deducted to bring the allowance to a level that is our best estimate of probable incurred credit losses inherent in the outstanding loan portfolio. For the three months ended September 30, 2019 and September 30, 2018, the provision for loan losses was $13,700 and $9,500, respectively. See the section captioned “Delinquent Loans, Troubled Debt Restructuring, Impaired Loans, Other Real Estate Owned and Classified Assets, Past Due, Non-Performing Loans, Non-Performing Assets (Risk Elements) - Provision for Loan Losses” later in this discussion for further analysis of the provision for loan losses.

Non-interest income. The components of non-interest income were as follows for the periods presented below:

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
Deposit fees and service charges	$ 6,582	$ 6,333	$ 19,891	$ 20,319
Accounts receivable management / factoring commissions and other related fees	6,049	5,595	17,265	16,292
Bank owned life insurance	8,066	3,733	15,900	11,591
Loan commissions and fees	6,285	4,142	15,431	12,114
Investment management fees	1,758	1,943	5,708	5,889
Net gain (loss) on sale of securities	6,882	(56)	(6,830)	(5,902)
Gain on termination of pension plan	12,097	—	12,097	—
Gain on sale of fixed assets	—	—	—	11,800
Gain on sale of residential mortgage loans	—	—	8,313	—
Other	4,111	2,455	10,710	8,617
Total non-interest income	$ 51,830	$ 24,145	$ 98,485	$ 80,720

Non-interest income was $51,830 for the three months ended September 30, 2019, compared to $24,145 in the same period a year ago. Included in non-interest income was a net gain (loss) on sale of securities, which was a gain of $6,882 for the three months ended September 30, 2019 compared to a loss of $56 for the three months ended September 30, 2018, and a gain on the termination of the Astoria defined benefit pension plan of $12,097 for the three months ended September 30, 2019. Net gain (loss) loss on sale of securities is impacted significantly by changes in market interest rates and strategies we use to manage yield, liquidity and interest rate risk, and it is difficult to forecast the amount of net losses or gains consistently. When we analyze the results of our non-interest income, we exclude certain items, including gains and losses on sales of securities, gains from termination of pension plans, gains on sale of fixed assets and the gain on bulk sale of residential mortgage loans. Excluding net (loss) on sale of securities and gain on termination of pension plan, non-interest income was $32,851 for the third quarter of 2019 compared to $24,201 for the third quarter of 2018. In the nine months ended September 30, 2019, the increase in non-interest income between the periods was mainly due to the gain on termination of pension plan, the increase in BOLI income, loan commissions and fees and other, which are discussed below. We anticipate the main drivers of growth in non-interest income will be other loan fees, loan swap fees, loan syndication fees, deposit fees and service charges generated by commercial treasury management services and BOLI income. We continue to evaluate potential acquisitions of commercial finance businesses that are also fee income generators. Changes in the components of non-interest income are discussed below.

Deposit fees and service charges were $6,582 for the third quarter of 2019, which represented a $249 increase from the third quarter of 2018. In the nine months ended September 30, 2019, deposit fees and charges were $19,891, which represented a $428 decline compared to the same period a year ago. We implemented a client retention strategy in connection with the Astoria deposit systems conversion which included a temporary waiver of fees post-conversion. The systems conversion was completed in August 2018 and the temporary waiver of fees concluded during the first quarter of 2019.

Accounts receivable management / factoring commissions and other related fees represent fees generated in our factoring and payroll finance businesses. A portion of the fees generated in the factoring and payroll finance businesses are allocated to interest income on loans and the remainder is recognized as fee income. In our factored receivables business, we receive a nonrefundable factoring fee, which is generally a percentage of the factored receivables or sales volume, and is designed to compensate us for the bookkeeping and collection services provided and, if applicable, the credit review of the client's customer and assumption of customer credit risk. In payroll finance, we provide outsourcing support services for clients in the temporary staffing industry. We generate fee income in exchange for providing full back-office, payroll, tax and accounting services to independently-owned temporary staffing companies. Total fee income in these businesses increased $454 to $6,049 for the three months ended September 30, 2019, compared to $5,595 for the year ago period. In the nine months ended September 30, 2019, total fee income increased $973. The increase between the periods was mainly due to revenue generated from factored receivables through a combination of higher volumes and an increase in interest rates.

Bank owned life insurance income represents the change in the cash surrender value of life insurance policies owned by us. BOLI income was $8,066 for the third quarter of 2019, compared to $3,733 in the same period a year ago, and was $15,900 for the nine months ended September 30, 2019, compared to $11,591 in the same period a year ago. In the three months ended September 30,

2019, we completed the restructuring of $394,818 of BOLI assets acquired in the Astoria Merger. The restructuring consisted mainly of diversifying the investment asset classes available under the program and a reduction in fees and other charges. As a result of the restructuring, we anticipate BOLI income will be in a range of $5,000 to $6,000 per quarter going forward.

Loan commissions and fee income includes fees on lines of credit, loan servicing fees, loan syndication fees, collateral monitoring, and other loan related fees that are not included in interest income. Loan commissions and fees were $6,285 for the three months ended September 30, 2019, compared to $4,142 for the three months ended September 30, 2018, and were $15,431 for the nine months ended September 30, 2019, compared to $12,114 in the same period a year ago. The increase was mainly due to higher letter of credit fees and other loan fees generated by our commercial banking teams.

Investment management fees represent fees from the sale of mutual funds, annuities and insurance commissions. These revenues were $1,758 in the third quarter of 2019 and $1,943 in the same period a year ago, and were $5,708 for the first nine months of 2019, compared to $5,889 in the same period a year ago.

Net gain (loss) on sale of securities represents net gains or losses incurred on the sale of securities from our available for sale investment securities portfolio. We realized a net gain on sale of securities of $6,882 in the three months ended September 30, 2019 compared to a loss of $56 in the three months ended September 30, 2018. In the third quarter of 2019 the gain on sale of securities was mainly due to sales of mortgage-backed securities and corporate securities and was part of our balance sheet restructuring activities. The net loss on sale of securities of $6,830 in the nine months ended September 30, 2019 was mainly due to the sale of $1,386,236 of available for sale securities in the first quarter of 2019. The proceeds were used to fund a portion of the Woodforest Acquisition and to reduce higher cost wholesale funding. In the nine months ended September 30, 2018, the loss on sale of securities was $5,902 and was mainly due to the sale of $117,810 of available for sale securities, the proceeds of which were used to fund a portion of the purchase of Advantage Funding in April 2018.

Gain on termination of pension plan represents income we recognized in the third quarter of 2019 due to the termination and settlement of the Astoria defined benefit pension plan, which resulted in a gain of $12,097. The gain was the result of several factors including strong performance in the actual return on plan assets in 2019 and a better than expected bid outcome on the annuities purchase.

Gain on sale of residential mortgage loans represents the net gain we realized on the sale of residential mortgage loans held for sale in the first quarter of 2019. The sale was part of our strategy of increasing the percentage of commercial loans to total loans in our loan portfolio.

Gain on sale of fixed assets was $11,800 for the nine months ended September 30, 2018. This gain represented income from the sale of the Lake Success facility, which was Astoria’s headquarters. The sales price was, $36,000, which we received in cash at closing. We fully exited this location in the first quarter of 2019.

Other non-interest income principally includes fees for loan swaps, safe deposit rentals and foreign exchange fees. Other non-interest income increased to $4,111 for the third quarter of 2019 from $2,455 for the same period a year ago. The increase was mainly due to additional loan swap transactions between the periods. Other non-interest income was $10,710 for the nine months ended September 30, 2019, compared to $8,617 for the nine months ended September 30, 2018. The increase was mainly due to higher loan swap fees between the periods.

Non-interest expense. The components of non-interest expense were as follows for the periods presented below:

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
Compensation and benefits	$ 52,850	$ 54,823	$ 163,313	$ 165,662
Stock-based compensation plans	4,565	3,115	14,293	9,304
Occupancy and office operations	15,836	16,558	48,477	51,956
Information technology	8,545	10,699	26,267	32,412
Amortization of intangible assets	4,785	5,865	14,396	17,782
FDIC insurance and regulatory assessments	3,194	6,043	9,526	16,885
OREO, net	79	1,497	754	1,635
Charge for asset write-downs, retention and severance	—	—	3,344	13,132
Impairment related to financial centers and real estate consolidation strategy	—	—	14,398	—
Other non-interest expense	16,601	13,173	53,619	39,680
Total non-interest expense	$ 106,455	$ 111,773	$ 348,387	$ 348,448

Non-interest expense for the three months ended September 30, 2019 was $106,455, a $5,318 decrease from $111,773 for the three months ended September 30, 2018. The decrease between the periods was mainly a result of strong management of operating expenses, a decrease in personnel and continued execution of our real estate consolidation strategy. Non-interest expense for the nine months ended September 30, 2019 was $348,387 compared to $348,448 for the nine months ended September 30, 2018. The decrease was due to several factors described below. Changes in the components of non-interest expense are discussed below.

Compensation and benefits expense was $52,850 for the three months ended September 30, 2019, compared to $54,823 for the three months ended September 30, 2018. The decrease was mainly due to a decline in our full-time equivalent employees. As of September 30, 2019, our full-time equivalent employees were 1,689 compared to 1,959 at September 30, 2018, which was mainly due to the completion of the Astoria Merger integration and ongoing financial center consolidation strategy. For the nine months ended September 30, 2019, compensation and employee benefits expense was $163,313 compared to $165,662 for the nine months ended September 30, 2018. We have offset the reduction in financial center personnel with continued hiring of commercial banking, business development and risk management personnel.

Stock-based compensation plans expense was $4,565 in the third quarter of 2019, compared to $3,115 in the third quarter of 2018. The increase was due to a greater percentage of compensation paid to our executive management and senior personnel in stock awards to better align the interests of management and employees to those of our stockholders. For the nine months ended September 30, 2019, stock-based compensation expense was $14,293 compared to $9,304 for the nine months ended September 30, 2018. The increase was due to the same factors discussed above. Performance-based stock awards granted in February 2016 with a three-year measurement period vested in the first quarter of 2019 at 150% of the target amount granted, which resulted in additional expense of $1,000. For additional information related to our employee benefit plans and stock-based compensation, see Note 12. “Stock-Based Compensation” in the notes to consolidated financial statements included elsewhere in this report.

Occupancy and office operations expense was $15,836 in the third quarter of 2019, compared to $16,558 in the third quarter of 2018. At September 30, 2019, we had 87 financial center locations, compared to 113 financial centers at September 30, 2018. For the nine months ended September 30, 2019, occupancy and office operations expense was $48,477, compared to $51,956 for the nine months ended September 30, 2018. We continue to evaluate opportunities reduce our total number of financial centers and back-office locations over time.

Information technology expense, which mainly includes the cost of our loan and deposit operating systems and contracted service and maintenance associated with other data processing systems, was $8,545 in the third quarter of 2019, compared to $10,699 in the third quarter of 2018. For the nine months ended September 30, 2019, information technology expense was $26,267, compared to $32,412 for the nine months ended September 30, 2018. The decrease in information technology expense was mainly due to the completion of the conversion of Astoria’s legacy deposit systems in the third quarter of 2018.

Amortization of intangible assets expense mainly includes amortization of core deposit intangible assets, customer lists and non-compete agreements. Amortization of intangible assets was $4,785 in the three months ended September 30, 2019, compared to $5,865 for the three months ended September 30, 2018. Amortization of intangible assets was $14,396 for the nine months ended September 30, 2019, compared to $17,782 for the nine months ended September 30, 2018. The decrease in amortization expense was mainly due to the accelerated amortization of the core deposit intangible assets that were recorded in the Astoria Merger and other acquisitions. For additional information, see Note 6. "Goodwill and Other Intangible Assets" in the notes to the consolidated financial statements included elsewhere in this report.

FDIC insurance and regulatory assessments expense was $3,194 for the third quarter of 2019, compared to $6,043 for the third quarter of 2018. FDIC insurance and regulatory assessments expense was $9,526 for the nine months ended September 30, 2019, compared to $16,885 for the nine months ended September 30, 2018. The decrease was a result of a reduction in FDIC deposit insurance assessments, which was mainly due to the termination of the quarterly Deposit Insurance Fund surcharge that was assessed to institutions with $10 billion or more in assets in 2018.

Other real estate owned expense, net includes property taxes, maintenance costs, insurance, write-downs (subsequent to any write-down at the time of foreclosure or transfer to OREO), and gains and losses from the disposition of OREO. OREO includes real estate assets that have been foreclosed and owned financial center locations that have been closed and are held for sale. OREO expense, net, included the following:

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
(Gain) on sale, net	$ (268)	$ (65)	$ (1,010)	$ (1,348)
Direct property write-downs	192	190	742	552
Rental income	(32)	(35)	(106)	(114)
Property tax	73	617	312	851
Other expenses	114	790	816	1,694
OREO expense, net	$ 79	$ 1,497	$ 754	$ 1,635

OREO expense, net, was $79 for the three months ended September 30, 2019, compared to $1,497 for the three months ended September 30, 2018. OREO expense, net, was $754 for the nine months ended September 30, 2019, compared to $1,635 for the nine months ended September 30, 2018. The balance of OREO declined by $6,371 to $13,006 at September 30, 2019 compared to $19,377 at December 31, 2018.

Impairment related to financial centers and real estate consolidation strategy was $14,398 for nine months ended September 30, 2019 compared to zero in the year earlier period. This charge included a write-off of leasehold improvements, land and buildings, and the early termination of several long-term leases which facilitated the consolidation of 26 financial centers and two back office locations over the past twelve months.

Charge for asset write-downs, severance and retention expense was $3,344 for the nine months ended September 30, 2019, which we incurred in connection with the commercial loan portfolio and origination platform acquired from Woodforest in February 2019. The charge included components related to professional fees, retention and severance, systems integration costs and an impairment of a lease assumed in the transaction. Charge for asset write-downs, severance and retention expense was $13,132 for the nine months ended September 30, 2018. In the nine months ended September 30, 2018, we incurred a charge of $8,736 due to the consolidation and exit of one back-office location. The balance of the charge of $4,396, was related to the Advantage Funding Acquisition. The charge included professional fees, retention and severance, systems integration costs and an impairment of a lease assumed in the transaction.

Other non-interest expense mainly includes professional fees, advertising and promotion, communications and operational losses. Also included in other non-interest expense are loan processing expenses including outsourced residential mortgage loan servicing, pension and post retirement plans, recruitment fees, taxes not included in income tax expense, travel and client entertainment, insurance and training expense. For the three months ended September 30, 2019, other non-interest expense was $16,601, compared to $13,173 for the three months ended September 30, 2018 and was $53,619 for the nine months ended September 30, 2019, compared to $39,680 for the same period a year ago.

In the three months ended September 30, 2019, the increase was mainly due to higher professional fees, including consulting expenses related to various automation projects, legal fees related to various loan collection matters and an increase in advertising

for targeted deposit gathering efforts. In addition, for the nine months ended September 30, 2019, the increase included a legal settlement charge of $1.1 million related to a troubled loan relationship that was acquired in a prior merger and increases in operational losses, mainly related to check fraud and ATM losses.

Income tax expense was $32,549 for the three months ended September 30, 2019 compared to $27,171 for the three months ended September 30, 2018. We recorded income tax expense at an estimated effective income tax rate of 21.0% and 18.5% for the three months ended September 30, 2019 and 2018, respectively.

Income tax expense was $85,020 for the nine months ended September 30, 2019 and $88,542 for the nine months ended September 30, 2018, which represented an effective income tax rate of 21.0% for both periods. See Note 11. “Income Taxes” in the notes to the consolidated financial statements included elsewhere in this report for additional information.

Portfolio Loans

The following table sets forth the composition of our loan portfolio, excluding loans held for sale, by type of loan at the periods indicated.

	September 30, 2019		December 31, 2018	
	Amount	%	Amount	%
Commercial:				
C&I:				
Traditional C&I	$ 2,376,629	11.4%	$ 2,396,182	12.5%
Asset-based lending	1,174,339	5.6	792,935	4.1
Payroll finance	209,210	1.0	227,452	1.2
Warehouse lending	1,457,232	7.0	782,646	4.1
Factored receivables	277,853	1.3	258,383	1.3
Equipment financing	1,174,714	5.7	1,215,042	6.3
Public sector finance	1,122,592	5.4	860,746	4.5
Total C&I	7,792,569	37.4	6,533,386	34.0
Commercial mortgage:				
CRE	5,198,407	25.0	4,642,417	24.2
Multi-family	4,779,432	22.9	4,764,124	24.7
ADC	433,883	2.1	267,754	1.4
Total commercial mortgage	10,411,722	50.0	9,674,295	50.3
Total commercial	18,204,291	87.4	16,207,681	84.3
Residential mortgage	2,370,216	11.4	2,705,226	14.1
Consumer	255,656	1.2	305,623	1.6
Total portfolio loans	20,830,163	100.0%	19,218,530	100.0%
Allowance for loan losses	(104,735)		(95,677)	
Total portfolio loans, net	$ 20,725,428		$ 19,122,853	

Note: the percentages in the table above are rounded to the nearest tenth of a percent.

Overview. Total portfolio loans, net, increased $1,602,575, to $20,725,428 at September 30, 2019, compared to $19,122,853 at December 31, 2018. This was mainly due to an increase in total commercial loans of $1,996,610, which was offset by a decline in residential mortgage loans of $335,010. This is consistent with our strategy of transitioning our loan portfolio composition to reduce non-relationship, residential mortgage loans, and increase the proportion of commercial loans originated through our commercial banking teams. Growth in commercial loans was the result of $1,524,732 of organic loan originations and $471,878 from acquired loans, which represented the fair value of the loans acquired in the Woodforest Acquisition.

At September 30, 2019, total C&I loans comprised 37.4% of the total loan portfolio, compared to 34.0% at December 31, 2018. Commercial mortgage loans comprised 50.0% and 50.3% of the total loan portfolio at September 30, 2019 and December 31, 2018, respectively. Residential mortgage loans comprised 11.4% of the total loan portfolio at September 30, 2019, compared to 14.1% at December 31, 2018. Our goal, over time, is for our loan portfolio to consist of 45.0% traditional C&I and commercial finance; 45.0% commercial real estate; and 10.0% consumer and residential mortgage loans.

In the nine months ended September 30, 2019, warehouse lending loans grew $674,586, which was mainly due to the decline in residential mortgage interest rates and an increase in residential mortgage loan refinance activity. Asset-based lending loans grew $381,404, which includes the loans acquired from Woodforest. Public sector finance loans grew $261,846 and factored receivables grew $19,470. These increases were partially offset by declines of $40,328 in equipment finance loans, $19,553 in traditional C&I loans and $18,242 in payroll finance loans. We believe our commercial loans have attractive risk-adjusted returns relative to other asset classes.

CRE loans increased $555,990 in the nine months ended September 30, 2019. Multi-family loans increased in the first nine months of 2019 by $15,308. The increases in CRE and multi-family loans was mainly due to strong demand for these loan products in our market area.

ADC loans, which are a component of commercial mortgage loans, increased $166,129 in the nine months ended September 30, 2019. This increase is mainly due to construction loans related to our affordable housing tax credit investments. Other ADC loans are generally originated to select clients, mostly within our immediate footprint.

Residential mortgage loans were $2,370,216 at September 30, 2019 compared to $2,705,226 at December 31, 2018. The decline is net of $128,833 of residential mortgage loans that were classified as held for sale at December 31, 2018, which were transferred to portfolio loans in the second quarter of 2019. Total repayments of residential mortgage portfolio loans were $463,843 in the nine months ended 2019.

Included in our residential mortgage portfolio are loans that were originated in 2010 or earlier as interest-only adjustable rate mortgages ("ARM loans") with terms of up to forty years, which have an initial fixed rate for five, seven or 10 years and convert into one year interest-only ARM loans at the end of the initial fixed rate period. Interest-only ARM loans require the borrower to pay interest only during the first ten years of the loan term, which typically results in a material increase in the borrower's monthly payments upon conversion. After the tenth anniversary of the loan, principal and interest payments are required to amortize the loan over the remaining term. There were $910,206 of residential mortgage loans that were originated as interest only ARM loans at September 30, 2019 compared to $1,129,023 at December 31, 2018.

Acquired loans. The table below presents the unpaid principal balance, remaining purchase accounting adjustments and carrying value of acquired loans as of the dates indicated. Generally, loans acquired in a business combination transaction are identified as acquired loans. After an acquired loan matures or is subject to review by our credit administration department, we generally transfer that loan to originated loans, as that loan will be individually underwritten by our credit personnel at the time it is renewed or evaluated.

	September 30, 2019	December 31, 2018
Commercial loans acquired from Woodforest	$ 399,074	$ —
Advantage Funding Acquisition	186,043	298,684
Astoria Merger	4,997,450	5,717,901
HVB Merger	232,978	291,793
Provident Merger	—	27,497
Unpaid principal balance	5,815,545	6,335,875
Remaining purchase accounting discount	(73,985)	(117,222)
Carrying value	$ 5,741,560	$ 6,218,653

In the three months ended September 30, 2019, the unpaid principal balance of acquired loans declined to $5,815,545 compared to $6,335,875 at December 31, 2018. The decline in the unpaid principal balance of acquired loans was mainly due to repayments and sales of residential mortgage loans acquired in the Astoria Merger and the migration of loans to originated portfolio at maturity or based on a credit evaluation. These decreases were partially offset by the commercial loans acquired from Woodforest. See Note 2. "Acquisitions" in the notes to consolidated financial statements for additional information regarding this acquisition.

Delinquent Loans, Troubled Debt Restructuring, Impaired Loans, Other Real Estate Owned and Classified Assets

Past Due, Non-Performing Loans, Non-Performing Assets (Risk Elements). The table below sets forth the amounts and categories of our NPAs at the dates indicated. There were no warehouse lending, factored receivables or public sector finance loans that were non-performing at such dates.

	September 30, 2019	December 31, 2018
Non-accrual loans:		
Traditional C&I	$ 28,501	$ 42,298
Asset-based lending	19,634	3,281
Payroll finance	740	881
Equipment financing	26,665	12,221
Commercial real estate	34,703	33,012
Multi-family	5,757	2,681
ADC	961	—
Residential mortgage	60,850	61,981
Consumer	12,200	10,045
Total non-accrual loans	190,011	166,400
Accruing loans past due 90 days or more	955	2,422
Total NPLs	190,966	168,822
OREO	13,006	19,377
Total NPAs	$ 203,972	$ 188,199
TDRs accruing and not included above	$ 24,893	$ 35,288
Ratios:		
NPLs to total loans	0.92%	0.88%
NPAs to total assets	0.68	0.60

NPAs and NPLs. NPLs include non-accrual loans and accruing loans past due 90 days or more. NPAs include NPLs and OREO. At September 30, 2019, total NPLs increased $22,144 to $190,966 compared to $168,822 at December 31, 2018. Non-accrual loans were $190,011 and loans 90 days past due and still accruing interest which were well secured and in the process of collection, were $955 as of September 30, 2019. Non-accrual loans increased by $23,611 to $190,011 at September 30, 2019 from $166,400 at December 31, 2018. The increase was mainly due to loans in our asset-based lending and equipment financing portfolios. The increases were associated with asset-based lending loans, which are in the process of work-out or exit. The decline in traditional C&I was mainly related to a decline in taxi medallion relationships, which is discussed further below. Loans past due 90 days or more and still accruing declined $1,467 between the periods. This was mainly due to a decline in loans that were in the process of being renewed at their respective period end.

TDRs. TDRs still accruing interest income are loans modified for borrowers that have experienced financial difficulties but are performing in accordance with the terms of their loan and were performing prior to the modification. Loan modification concessions may include actions such as an extension of the maturity date or the lowering of interest rates and monthly payments. At September 30, 2019, accruing TDRs were $24,893 compared to $35,288 at December 31, 2018. The decrease was mainly due to repayments. Total TDRs were $48,954 at September 30, 2019, of which $24,061 were non-accrual. Total TDRs were $74,885 at December 31, 2018, of which $38,947 were non-accrual. The decrease in non-accrual TDRs was mainly the result of the work-out of one taxi medallion relationship and other repayments. Total charge-offs of TDR loans in the period was $594. TDR balances are detailed in the TDR section of Note 4. "Portfolio Loans" in the notes to the consolidated financial statements included elsewhere in this report. As of September 30, 2019, there were no commitments to lend additional funds to borrowers with loans that have been classified as TDRs.

OREO. Real estate acquired as a result of foreclosure or by deed in lieu of foreclosure is classified as OREO until such time as it is sold. In addition, financial centers that were closed or consolidated that are held for sale are also classified as OREO. When real estate is transferred to OREO, it is recorded at fair value less costs to sell. If the fair value less cost to sell is less than the loan balance, the difference is charged against the allowance for loan losses. If the fair value of a financial center that we hold for sale is less than its prior carrying value, we recognize a charge included in other operating expense to reduce the recorded value of the investment to fair value, less costs to sell. After transfer to OREO, we regularly update the fair value of the properties. Subsequent declines in fair value are charged to current earnings and included in other non-interest expense as part of OREO expense. At

September 30, 2019, we had OREO properties with a recorded balance of $13,006, compared to $19,377 at December 31, 2018. The decrease was due to $9,739 in sales and $742 of write-downs to reflect the estimated current sale value of the properties. This was partially offset by OREO additions of $4,110 in the period.

Classification of Assets. Our policies, consistent with regulatory guidelines, provide for the classification of loans and other assets that are considered to be of lesser quality, such as "substandard", "doubtful", or "loss" assets. An asset is considered "substandard" if it is inadequately protected by the current net worth and paying capacity of the obligor or of the collateral pledged, if any. "Substandard" assets include those characterized by the distinct possibility that the Bank will sustain some loss if the deficiencies are not corrected. Assets classified as "doubtful" have all of the weaknesses inherent in those classified as "substandard" with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently existing facts, conditions, and values, highly questionable and improbable. Assets classified as "loss" are those considered uncollectible and of such little value that their continuance as assets is not warranted and are charged-off. Assets that do not expose us to risk sufficient to warrant classification in one of the aforementioned categories, but which possess potential weaknesses that deserve our close attention, are designated as "special mention." As of September 30, 2019, we had $136,972 of loans designated as "special mention" compared to $113,180 at December 31, 2018. The increase was mainly due to asset-based lending and equipment finance loans acquired in the Woodforest Acquisition. Increases in special mention loans were substantially offset by upgrades to multi-family loans that returned to a pass classification.

Our determination as to the classification of our assets and the amount of our loan loss allowance are subject to review by our regulators, who can direct the charge-off of loans and order the establishment of additions to our allowance for loan losses. Management regularly reviews our asset portfolio to determine whether any assets require classification in accordance with applicable regulations. On the basis of management's review of our assets at September 30, 2019, classified assets consisted of substandard loans of $277,975 and OREO of $13,006. Classified loans were $266,047 and OREO was $19,377 at December 31, 2018. The increase in classified loans in the nine months ended September 30, 2019 was mainly related to equipment finance loans including loans acquired in the Woodforest Acquisition. These increases were partially offset by improvement in our taxi medallion loans, which is discussed below.

Taxi Medallion Loans. At September 30, 2019, we had four taxi medallion relationships that totaled $32,286, or 0.15% of portfolio loans, compared to $34,063, or 0.18% of portfolio loans, at December 31, 2018. The decline in the balance between the periods of $1,777 was due to repayments. Our taxi medallion loans are mainly collateralized by New York City taxi medallions and other corporate and personal collateral of the borrowers. Two of the relationships are on non-accrual and totaled $13,482 at September 30, 2019, compared to $26,136 at December 31, 2018. The decline in non-accrual taxi medallion loans at September 30, 2019, was mainly due to the work-out of one of the non-accrual relationships. We continue to closely monitor the collateral values, cash flows and performance of each of these loans and are working with our borrowers to reduce these outstanding balances.

Allowance for Loan Losses. The allowance for loan losses is a reserve established through a provision for loan losses charged to expense, which represents management's best estimate of probable losses that have been incurred within the existing portfolio of loans. The allowance, in the judgment of management, is necessary to reserve for estimated loan losses and risks inherent in the loan portfolio. Our allowance for loan loss methodology includes allowance allocations calculated in accordance with ASC Topic 310, *"Receivables"* and allowance allocations calculated in accordance with ASC Topic 450, *"Contingencies."* Accordingly, the methodology is based on historical loss experience by type of credit and internal risk grade, specific homogeneous risk pools and specific loss allocations, with adjustments for current events and conditions. Our process for determining the appropriate level of allowance for loan losses is designed to account for credit deterioration as it occurs. The provision for loan losses reflects loan quality trends, including the levels of, and trends related to, non-accrual loans, past due loans, potential problem loans, classified and criticized loans and net charge-offs or recoveries and loan documentation exceptions, among other factors. See Note 5. "Allowance for Loan Losses" in the notes to consolidated financial statements included elsewhere in this report for further information regarding the allowance for loan losses.

The allowance for loan losses increased from $95,677 at December 31, 2018 to $104,735 at September 30, 2019, as the provision for loan losses exceeded net charge-offs by $9,058. The allowance for loan losses at September 30, 2019 represented 54.8% of non-performing loans and 0.50% of total portfolio loans. At December 31, 2018, the allowance for loan losses represented 56.7% of non-performing loans and 0.50% of total portfolio loans. Loans acquired in prior mergers and acquisitions were recorded with a fair value adjustment as of the acquisition date that included estimated lifetime credit losses and interest rate adjustments, among other factors (the "loan mark"). A substantial portion of portfolio loans covered by the loan mark continue to carry no allowance for loan losses. As a result, we believe our allowance for loan losses to portfolio loans may not be comparable to other banking entities that have not engaged in mergers and acquisitions.

Allocation of Allowance for Loan Losses. The following table sets forth the allowance for loan losses allocated by loan category, the total loan balances by category (excluding loans held for sale), and the percent of loans in each category to total loans at the dates indicated. The allowance for loan losses allocated to each category is not necessarily indicative of future losses in any particular category and does not restrict the use of the allowance to absorb losses in other categories.

	September 30, 2019			December 31, 2018		
	Allowance for loan losses	Loan balance	% of total originated loans	Allowance for loan losses	Loan balance	% of total originated loans
Traditional C&I	$ 14,466	$ 2,318,325	15.4%	$ 14,201	$ 2,321,131	18.0%
Asset-based lending	13,968	870,681	5.8	7,979	792,935	6.2
Payroll finance	1,937	209,210	1.4	2,738	227,452	1.8
Warehouse lending	547	1,457,232	9.7	2,800	782,646	6.1
Factored receivables	1,016	277,853	1.9	1,064	258,383	2.0
Equipment financing	16,109	893,255	5.9	12,450	913,751	7.1
Public sector finance	1,539	1,122,592	7.5	1,739	860,746	6.7
CRE	32,111	4,806,054	32.0	32,285	4,154,956	32.3
Multi-family	9,556	1,932,464	12.9	8,355	1,527,619	11.9
ADC	4,166	433,883	2.9	1,769	267,754	2.1
Residential mortgage	7,372	559,685	3.7	7,454	621,471	4.8
Consumer	1,948	133,384	0.9	2,843	153,811	1.0
Total	$ 104,735	$ 15,014,618	100.0%	$ 95,677	$ 12,882,655	100.0%

At September 30, 2019, the allocation of the allowance for loan losses increased in the asset-based lending and equipment finance portfolios mainly due to net charge-offs, which resulted in an increase in our trailing loss factors. In addition, we increased qualitative factors in these portfolios based on recent performance. The change in warehouse lending and public sector finance portfolios reflects ongoing adjustments to our qualitative loss factors as these portfolios have not incurred delinquencies or charge-offs over the prior 12 quarters and trends and conditions in both sectors have remained strong. The fluctuation in the remaining portfolios is mainly due to the change in loan balances between the periods.

Impaired Loans. A loan is impaired when it is probable we will be unable to collect all amounts due according to the contractual terms of the loan agreement. Impaired loan values are based on one of three measures: (i) the present value of expected future cash flows discounted at the loan's effective interest rate; (ii) the loan's observable market price; or (iii) the fair value of the collateral if the loan is collateral dependent. If the measure of an impaired loan is less than its recorded investment, our practice is to write-down the loan against the allowance for loan losses so the recorded investment matches the impaired value of the loan. Impaired loans generally include a portion of non-performing loans and accruing and performing TDR loans. At September 30, 2019, we had $93,413 in impaired loans compared to $100,998 at December 31, 2018. The decrease was mainly due to charge-offs and work-outs of loans during the first nine months of 2019.

PCI Loans. A PCI loan is an acquired loan that has demonstrated evidence of deterioration in credit quality subsequent to origination. As of September 30, 2019, the balance of PCI loans was $125,403, compared to $139,795 at December 31, 2018 and is mainly comprised of loans acquired in the Astoria Merger. The decrease from December 31, 2018 was mainly from repayments and was partially offset by PCI loans acquired in the Woodforest Acquisition. PCI loans are accounted for under applicable guidance, which results in an accretable yield that represents the amount of expected cash flows that exceeds the initial investment in the loan. See the tables of loans evaluated for impairment by segment and changes in accretable yield for PCI loans in Note 4. "Portfolio Loans" in the notes to consolidated financial statements included elsewhere in this report for additional information.

Provision for Loan Losses. We recorded $13,700 in loan loss provision for the three months ended September 30, 2019, compared to $9,500 for the three months ended September 30, 2018. Net charge-offs for the three months ended September 30, 2019 were $13,629, or 0.27% of average loans on an annualized basis, compared to net charge-offs of $4,161, or 0.08% of average loans on an annualized basis for the three months ended September 30, 2018. Included in the charge-off amount for the third quarter of 2019 was $2,000 that was allocated as a specific reserve for an asset-based lending loan at June 30, 2019. In the nine months ended September 30, 2019, provision for loan losses was $35,400, compared to $35,500 for the nine months ended September 30, 2018. Net charge-offs for the nine months ended September 30, 2019 were $26,342, compared to $22,042 for the nine months ended September 30, 2018.

Changes in Financial Condition between September 30, 2019 and December 31, 2018

Total assets decreased $1,305,642 to $30,077,665 at September 30, 2019, compared to $31,383,307 at December 31, 2018. Components of the change in total assets were:

- Loans held for sale declined by $1,561,352, mainly due to the completion of the sales of residential mortgage loans in the first half of 2019 and continued run-off and repayments.
- Residential mortgage loans held in our loan portfolio declined by $335,010 to $2,370,216 at September 30, 2019 compared to $2,705,226 at December 31, 2018. This decline was net of $128,833 of residential mortgage loans that were held for sale at December 31, 2018 that were transferred to portfolio loans earlier in the year. The decline of residential mortgage loans due to repayments was $463,843 in the nine months ended September 30, 2019.
- Total investment securities declined by $1,620,169 to $5,047,011 at September 30, 2019, compared to $6,667,180 at December 31, 2018. We adopted ASU 2017-12, *"Derivatives and Hedging (Topic 815) - Targeted Improvements to Accounting for Hedging Activities,"* which allows for the reclassification of a debt security from held to maturity to available for sale if the debt security was eligible to be hedged under the last-of-layer method in accordance with the accounting standard. Generally, this includes debt securities that were pre-payable, including mortgage-backed securities, and debt securities that are callable by the issuer, which are applicable to many of our state and local government debt securities. We transferred held to maturity securities with a book value of $720,440 and a fair value of $708,627 at December 31, 2018 to available for sale effective January 1, 2019 and sold $738,751 of securities in the first quarter of 2019 to fund a portion of the Woodforest Acquisition and to reduce lower yielding securities as a percentage of total assets. Year to date, we have sold $1,386,236 of investment securities, with the balance of the decline due to net repayments received. Investment securities were 16.8% of total assets at September 30, 2019, compared to 21.2% at December 31, 2018.
- Commercial loans increased by $1,996,610 to $18,204,291 at September 30, 2019, compared to $16,207,681 at December 31, 2018. The increase was mainly due to organic growth and the Woodforest Acquisition.
- Other assets increased by $306,534 to $738,774 at September 30, 2019, compared to $432,240 at December 31, 2018. The components of other assets are as follows:

	September 30, 2019	December 31, 2018
Low income housing tax credit investments	$ 327,561	$ 181,498
Right of use asset for operating leases	113,985	—
Cash on deposit as swap collateral / settlement	112,398	19,454
Other items	184,830	231,288
	$ 738,774	$ 432,240

The table above includes the following items:

- We have invested in various limited partnerships that sponsor affordable housing projects utilizing low income housing tax credits. These investments assist us in achieving our goals associated with the Community Reinvestment Act.
- The right of use assets for operating leases was established on January 1, 2019 in connection with the new leasing accounting standard disclosed in Note 9. "Leases", which requires all operating leases to be recorded in the consolidated balance sheets.
- Cash on deposit as swap collateral / settlement reflects the change in value since date of inception of our back-to-back commercial client loan swap program and positions, which are discussed in Note 10. "Derivatives".
- Other items include income tax balances, prepaid insurance, prepaid property taxes, prepaid maintenance, other accounts receivable and miscellaneous assets.

Total liabilities decreased $1,397,756 to $25,556,698 at September 30, 2019, compared to $26,954,454 at December 31, 2018. The decrease was mainly due to the following:

- FHLB borrowings decreased $2,037,866 to $2,800,907 at September 30, 2019, compared to $4,838,772 at December 31, 2018, which was mainly the result of the residential mortgage loans and securities sales discussed above, as proceeds from the sales were mainly used to pay down borrowings.
- Other liabilities increased $265,323 to $718,555 at September 30, 2019, compared to $453,232 at December 31, 2018. The increase was mainly due to the adoption of the new leasing standard disclosed in Note 9. "Leases." and an increase in commitments to fund low income housing tax credit investments.
- Total deposits increased $365,176 to $21,579,324 at September 30, 2019, compared to $21,214,148 at December 31, 2018. Our core retail, commercial and municipal transaction, money market, savings and certificates of deposit accounts were $20,296,395 at September 30, 2019, which represented 94.1% of our total deposit balances.

- Municipal deposits increased $482,960 to $2,234,630 at September 30, 2019, compared to $1,751,670 at December 31, 2018. The increase was mainly due to seasonal flows as municipal deposits typically reach their high for the year at the end of the third quarter.
- Brokered deposits increased $120,605 to $1,278,428 at September 30, 2019, compared to $1,157,823 at December 31, 2018. The increase was mainly due to our strategy of diversifying our funding mix and reducing higher cost wholesale borrowings. Our loans to deposits ratio was 96.5% at September 30, 2019.

Supplemental Reporting of Non-GAAP Financial Measures

The non-GAAP financial measures presented below are used by our management and our Board of Directors on a regular basis in addition to our GAAP results to facilitate the assessment of our financial performance and to assess our performance compared to our annual budget and strategic plans. These non-GAAP financial measures complement our GAAP reporting and are presented below to provide investors, analysts, regulators and others information that we use to manage and evaluate our performance each period. This information supplements our GAAP reported results, and should not be viewed in isolation from, or as a substitute for, our GAAP results. Accordingly, this financial information should be read in conjunction with our consolidated financial statements, and notes thereto for the quarter ended September 30, 2019, included elsewhere in this report, and the year ended December 31, 2018, included in the 2018 Form 10-K.

	September 30,	
	2019	2018
The following table shows the reconciliation of stockholders' equity to tangible common equity and the tangible common equity ratio [1]:		
Total assets	$ 30,077,665	$ 31,261,265
Goodwill and other intangibles	(1,772,963)	(1,745,181)
Tangible assets	28,304,702	29,516,084
Stockholders' equity	4,520,967	4,438,303
Preferred stock	(137,799)	(138,627)
Goodwill and other intangibles	(1,772,963)	(1,745,181)
Tangible common stockholders' equity	2,610,205	2,554,495
Common stock outstanding at period end	202,392,884	225,446,089
Common stockholders' equity as a % of total assets	14.57%	13.75%
Book value per common share	$ 21.66	$ 19.07
Tangible common equity as a % of tangible assets	9.22%	8.65%
Tangible book value per common share	$ 12.90	$ 11.33

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
The following table shows the reconciliation of reported return on average tangible assets and adjusted return on average tangible assets [4]:				
Average assets	$ 29,747,603	$ 31,036,026	$ 30,066,118	$ 30,686,808
Average goodwill and other intangibles	(1,776,118)	(1,752,933)	(1,771,242)	(1,747,141)
Average tangible assets	27,971,485	29,283,093	28,294,876	28,939,667
Net income available to common stockholders	120,465	117,657	314,386	326,775
Net income, if annualized	477,932	466,791	420,333	436,897
Reported return on average tangible assets	1.71%	1.59%	1.49%	1.51%
Adjusted net income (non-GAAP)	$ 105,629	$ 114,273	$ 318,038	$ 333,255
Annualized adjusted net income	419,072	453,366	425,215	445,561
Adjusted return on average tangible assets (non-GAAP)	1.50%	1.55%	1.50%	1.54%

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See legend beginning on page 75.

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
The following table shows the reconciliation of reported net income and reported EPS (GAAP) to adjusted net income available to common stockholders (non-GAAP) and adjusted diluted EPS (non-GAAP)[2]:				
Income before income tax expense	$ 154,996	$ 146,821	$ 405,364	$ 421,305
Income tax expense	32,549	27,171	85,020	88,542
Net income (GAAP)	122,447	119,650	320,344	332,763
Adjustments:				
Net (gain) loss on sale of securities	(6,882)	56	6,830	5,902
Net (gain) on sale of fixed assets	—	—	—	(11,800)
(Gain) on termination of pension plan	(12,097)	—	(12,097)	—
Impairment related to financial centers and real estate consolidation strategy	—	—	14,398	—
Net (gain) on sale of residential mortgage loans	—	—	(8,313)	—
Charge for asset write-downs, retention and severance	—	—	3,344	13,132
(Gain) on extinguishment of borrowings	—	—	(46)	—
Amortization of non-compete agreements and acquired customer lists	200	295	641	883
Total pre-tax adjustments	(18,779)	351	4,757	8,117
Adjusted pre-tax income	136,217	147,172	410,121	429,422
Adjusted income tax expense	28,606	30,906	86,125	90,179
Adjusted net income (non-GAAP)	107,611	116,266	323,996	339,243
Preferred stock dividend	1,982	1,993	5,958	5,988
Adjusted net income available to common stockholders (non-GAAP)	$ 105,629	$ 114,273	$ 318,038	$ 333,255
Weighted average diluted shares	203,566,582	225,622,895	208,108,575	225,504,463
Diluted EPS as reported (GAAP)	$ 0.59	$ 0.52	$ 1.51	$ 1.45
Adjusted diluted EPS (non-GAAP)	0.52	0.51	1.53	1.48

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
The following table shows the reconciliation of reported return on average tangible common stockholders' equity and adjusted return on average tangible common stockholders' equity [5]:				
Average stockholders' equity	$ 4,489,167	$ 4,397,823	$ 4,443,112	$ 4,316,455
Average preferred stock	(137,850)	(138,692)	(138,111)	(139,054)
Average goodwill and other intangibles	(1,776,118)	(1,752,933)	(1,771,242)	(1,747,141)
Average tangible common stockholders' equity	2,575,199	2,506,198	2,533,759	2,430,260
Net income available to common stockholders	120,465	117,657	314,386	326,775
Net income, if annualized	477,932	466,791	420,333	436,897
Reported return on average tangible common stockholders' equity	18.56%	18.63%	16.59%	17.98%
Adjusted net income (non-GAAP)	$ 105,629	$ 114,273	$ 318,038	$ 333,255
Annualized adjusted net income	419,072	453,366	425,215	445,561
Adjusted return on average tangible common stockholders' equity (non-GAAP)	16.27%	18.09%	16.78%	18.33%

See legend beginning on page 75.

	For the three months ended September 30,		For the nine months ended September 30,	
	2019	2018	2019	2018
The following table shows the reconciliation of the reported operating efficiency ratio and adjusted operating efficiency ratio [3]:				
Net interest income	$ 223,321	$ 243,949	$ 690,666	$ 724,533
Non-interest income	51,830	24,145	98,485	80,720
Total net revenue	275,151	268,094	789,151	805,253
Tax equivalent adjustment on securities	3,586	4,052	11,369	12,217
(Gain) on termination of pension plan	(12,097)	—	(12,097)	—
Net (gain) on sale of fixed assets	—	—	—	(11,800)
Net (gain) loss on sale of securities	(6,882)	56	6,830	5,902
Net (gain) on sale of residential mortgage loans	—	—	(8,313)	—
Adjusted total revenue (non-GAAP)	259,758	272,202	786,940	811,572
Non-interest expense	106,455	111,773	348,387	348,448
Impairment related to financial centers and real estate consolidation strategy	—	—	(14,398)	—
Charge for asset write-downs, systems integration, retention and severance	—	—	(3,344)	(13,132)
Gain on extinguishment of borrowings	—	—	46	—
Amortization of intangible assets	(4,785)	(5,865)	(14,396)	(17,782)
Adjusted non-interest expense (non-GAAP)	$ 101,670	$ 105,908	$ 316,295	$ 317,535
Reported operating efficiency ratio	38.7%	41.7%	44.1%	43.3%
Adjusted operating efficiency ratio (non-GAAP)	39.1	38.9	40.2	39.1

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See legend beginning below.

[1] Common stockholders' equity as a percentage of total assets, book value per common share, tangible common equity as a percentage of tangible assets and tangible book value per common share are non-GAAP measures that provide information to help assess our capital position and financial strength. We believe tangible book value measures improve comparability to other banking organizations that have not engaged in acquisitions that have resulted in the accumulation of goodwill and other intangible assets.

[2] Adjusted net income available to common stockholders and adjusted EPS are non-GAAP measures that present a summary of our earnings, which includes adjustments to exclude certain revenues and expenses (generally associated with discrete merger transactions and non-recurring strategic plans) to help in assessing our recurring profitability. For the purpose of calculating adjusted net income available for common stockholders and adjusted EPS, income tax expense is calculated using the estimated effective income tax rate for the full year in effect for the particular period end, as we believe this is a more accurate presentation of run rate income tax expense and earnings.

[3] The reported operating efficiency ratio is a non-GAAP measure calculated by dividing our GAAP non-interest expense by the sum of our GAAP net interest income plus GAAP non-interest income. The adjusted operating efficiency ratio is a non-GAAP measure calculated by dividing non-interest expense adjusted for intangible asset amortization and certain expenses generally associated with discrete merger transactions and non-recurring strategic plans by the sum of net interest income plus non-interest income plus the tax equivalent adjustment on securities income and elimination of the impact of gain or loss on sale of securities. The adjusted operating efficiency ratio is a measure we use to assess our operating performance.

[4] Reported return on average tangible assets and adjusted return on average tangible assets are non-GAAP measures that provide information to help assess our profitability.

[5] Reported return on average tangible common stockholders' equity and the adjusted return on average tangible common stockholders' equity are non-GAAP measures that provide information to evaluate the use of our tangible common equity.

Liquidity and Capital Resources

Capital. Stockholders' equity was $4,520,967 as of September 30, 2019, an increase of $92,114 relative to December 31, 2018. The increase was mainly the result of net income of $320,344, an increase in accumulated other comprehensive gain of $111,079, which was primarily due to an increase in the fair value of our available for sale securities portfolio, and an increase of stock option exercises and stock-based compensation, which totaled $2,397. These increases were partially offset by the repurchase of 15,312,694 common shares at a cost of $300,942, as well as declared dividends of $43,995 on common stock and $6,582 on preferred stock.

We paid dividends of $0.07 per common share in each quarter of 2018 and the first three quarters of 2019. Most recently, our Board of Directors declared a dividend of $0.07 per common share on October 23, 2019, which is payable November 18, 2019 to our holders as of the record date of November 4, 2019. We paid dividends of $16.25 per preferred share in each quarter of 2018 and the first three quarters of 2019. In addition, on October 15, 2019, we paid a dividend of $16.25 per preferred share.

Basel III Capital Rules. The Basel III Capital Rules were fully phased in on January 1, 2019. The rules are discussed in Note 16. "Stockholders' Equity - Regulatory Capital Requirements" in the notes to consolidated financial statements included elsewhere in this report.

Liquidity. As discussed in our 2018 Form 10-K, our liquidity position is continuously monitored and we make adjustments to the balance between sources and uses of funds as deemed appropriate. Liquidity risk management is an important element in our asset / liability management process. We regularly model liquidity stress scenarios to assess potential liquidity outflows or funding problems resulting from economic activity, volatility in the financial markets, unexpected credit events or other significant occurrences. These scenarios are incorporated into our contingency funding plan, which provides the basis for the identification of our liquidity needs. As of September 30, 2019, our management is not aware of any events that are reasonably likely to have a material adverse effect on our liquidity, capital resources or operations. In addition, management is not aware of any regulatory recommendations regarding liquidity, including the Basel III liquidity framework, which, if implemented, would have a material adverse effect on us.

At September 30, 2019, the Bank had $545,603 in cash and cash equivalents on hand and unused borrowing capacity at the FHLB of $4,721,450. In addition, the Bank may purchase federal funds from other institutions and enter into additional repurchase agreements. The Bank had $2,629,582 of unencumbered securities available to pledge as collateral as of September 30, 2019. The Bank was required to maintain $76,928 of cash on hand or on deposit with the FRB to meet regulatory reserve and clearing requirements at September 30, 2019.

We are a bank holding company and do not conduct operations. Our primary sources of liquidity are dividends received from the Bank and borrowings from outside sources. Banking regulations may limit the amount of dividends that may be paid by the Bank. At September 30, 2019, the Bank had capacity to pay approximately $182,000 of dividends to us under regulatory guidelines without prior regulatory approval.

We had cash on hand of $70,242 at September 30, 2019. We received dividends from the Bank of $400,000 in the nine months ended September 30, 2019. In the first nine months of 2019, we used $300,942 for common stock repurchases, $50,572 for dividends and $7,000 to repurchase a portion of our outstanding Senior Notes that we assumed in the Astoria Merger. Since the beginning of the fourth quarter of 2018, we have repurchased 24,427,465 shares of our common stock.

Effective August 27, 2019 we renewed our $35,000 credit facility with a financial institution, which is more fully described in Note 8. “Borrowings” in the notes to consolidated financial statements included elsewhere in this report. The use of proceeds are for general corporate purposes. The credit facility has no outstanding balance and requires us and the Bank to maintain certain ratios related to capital, non-performing assets to capital, reserves to non-performing loans and debt service coverage. We and the Bank were in compliance with all requirements at September 30, 2019.

In connection with the Astoria Merger, we assumed $200,000 principal amount of the Senior Notes which mature on June 8, 2020. At September 30, 2019, the balance outstanding was $173,652. We are currently evaluating various alternatives, including a full payoff or refinancing of the Senior Notes.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Management believes that our most significant form of market risk is interest rate risk. The general objective of our interest rate risk management is to determine the appropriate level of risk given our business strategy, and then manage that risk in a manner that is consistent with our policy to limit the exposure of our net interest income to changes in market interest rates. The Bank’s Asset/Liability Management Committee (“ALCO”), which consists of certain members of senior management, evaluates the interest rate risk inherent in certain assets and liabilities, our operating environment, and capital and liquidity requirements, and modifies our lending, investing and deposit gathering strategies accordingly. A committee of our Board of Directors reviews ALCO’s activities and strategies, the effect of those strategies on our net interest margin, and the effect that changes in market interest rates would have on the economic value of our loan and securities portfolios, as well as the intrinsic value of our deposits and borrowings.

Management actively evaluates interest rate risk in connection with our lending, investing, and deposit activities. Management emphasizes the origination of CRE loans and C&I loans. We also invest in shorter-term securities, which generally have lower yields compared to longer-term investments. Shortening the average maturity of our interest earning assets by increasing our investments in shorter-term loans and securities may help us to better match the maturities and interest rates of our assets and liabilities, thereby reducing the exposure of our net interest income to changes in market interest rates. These strategies may adversely affect net interest income due to lower initial yields on these investments in comparison to longer-term, fixed-rate loans and investments.

Management monitors interest rate sensitivity primarily through the use of a model that simulates net interest income (“NII”) under varying interest rate assumptions. Management also evaluates this sensitivity using a model that estimates the change in our and the Bank’s economic value of equity (“EVE”) over a range of interest rate scenarios. EVE is the present value of expected cash flows from assets, liabilities and off-balance sheet contracts. The model assumes estimated loan prepayment rates, reinvestment rates and deposit decay rates that management believes is reasonable, based on historical experience during prior interest rate changes.

Estimated Changes in EVE and NII. The table below sets forth, as of September 30, 2019, the estimated changes in our (i) EVE that would result from the designated instantaneous changes in the forward rate curves; and (ii) NII that would result from the designated instantaneous changes in the U.S. Treasury yield curve. Computations of prospective effects of hypothetical interest rate changes are based on numerous assumptions including relative levels of market interest rates, loan prepayments and deposit decay, and should not be relied on as indicative of actual results.

Interest rates (basis points)	Estimated EVE	Estimated change in EVE		Estimated NII	Estimated change in NII	
		Amount	Percent		Amount	Percent
	(Dollars in thousands)					
+300	$ 4,322,282	$ 160,141	3.8 %	$ 1,068,298	$ 153,771	16.8 %
+200	4,362,531	200,390	4.8	1,018,815	104,288	11.4
+100	4,319,959	157,818	3.8	966,415	51,888	5.7
0	4,162,141	—	—	914,527	—	—
-100	3,856,568	(305,573)	(7.3)	853,819	(60,708)	(6.6)
-200	3,338,173	(823,968)	(19.8)	806,431	(108,096)	(11.8)

The table above indicates that at September 30, 2019, in the event of an immediate 200 basis point increase in interest rates, we would expect to experience a 4.8% increase in EVE and a 11.4% increase in NII.

Certain shortcomings are inherent in the methodology used in the above interest rate risk measurements. Modeling changes in EVE and NII require making certain assumptions that may or may not reflect the manner in which actual yields and costs respond to changes in market interest rates. The EVE and NII table presented above assumes that the composition of our interest-rate sensitive assets and liabilities existing at the beginning of a period remains constant over the period being measured and, accordingly, the data does not reflect any actions management may undertake in response to changes in interest rates. The table also assumes that a particular change in interest rates is reflected uniformly across the yield curve regardless of the duration to maturity or the re-pricing characteristics of specific assets and liabilities. Accordingly, although the EVE and NII table provides an indication of our sensitivity to interest rate changes at a particular point in time, such measurements are not intended to and do not provide a precise forecast of the effect of changes that market interest rates may have on our net interest income. Actual results will likely differ.

During the nine months ended September 30, 2019, the federal funds target rate was lowered from 2.25 - 2.50% to 1.75 - 2.00%. U.S. Treasury yields with two year maturities decreased 85 basis points from 2.48% to 1.63% over the nine months ended September 30, 2019, while the yield on U.S. Treasury 10-year notes decreased 101 basis points from 2.69% to 1.68% over the same nine-month period. The decrease in interest rates on longer-term maturities relative to the lesser decrease in interest rates on short-term maturities resulted in a flatter 2-10 year U.S. Treasury yield curve at September 30, 2019 compared to December 31, 2018. At its September 2019 meeting, the Federal Open Markets Committee (the "FOMC") stated that in determining the timing and size of future adjustments to the target range for the federal funds rate, the Committee will assess realized and expected economic conditions relative to its maximum employment objective and its symmetric two percent inflation objective. However, should economic conditions deteriorate further the FOMC could continue lowering the federal funds target rate. This could cause the yield curve to fall and possibly flatten further or invert, which may result in compression of our net interest margin.

Item 4. Controls and Procedures

The Company's management, including the principal executive officer and principal financial officer, evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of the end of the period covered by this report. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective for the purpose of ensuring that the information required to be disclosed in our reports filed with the SEC under the Securities Exchange Act of 1934, as amended, is: (i) recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms; and (ii) accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Controls

There were no changes in the Company's internal controls over financial reporting during the three months ended September 30, 2019 that have materially affected, or are reasonably likely to materially affect, the Company's internal controls over financial reporting.

PART II

Item 1. Legal Proceedings

The "Litigation" section of Note 17. "Commitments and Contingencies" in the notes to consolidated financial statements included in Part I, Item 1 is incorporated herein by reference.

Item 1A. Risk Factors

For information regarding factors that could affect our business, results of operations, financial condition and liquidity, see the risk factors discussed under Part I, Item 1A of our 2018 Form 10-K.

In addition, we supplement the risk factors previously disclosed in our 2018 Form 10-K as follows:

Changes in accounting standards and management's application of those standards could materially impact the Company's financial statements.

The Company's accounting policies and methods are fundamental to the way it records and reports its financial condition and results of operations. Management must apply significant judgment in selecting and applying these accounting policies and methods, and these judgments have a significant impact on the Company's financial condition and operating results. Different assumptions in the application of these policies could result in material changes to the Company's consolidated financial position and/or consolidated results of operations and related disclosures. Further, if those assumptions were incorrectly made, the Company could be required to correct and restate prior-period financial statements.

From time to time, the Financial Accounting Standards Board (the "FASB") changes the financial accounting and reporting standards that govern the preparation of financial statements. These changes can be difficult to predict and can materially impact how the Company records and reports its financial condition and results of operations. For example, in June 2016 the FASB issued an accounting standard related to credit losses that will be effective for the Company on January 1, 2020. This standard replaces the incurred loss impairment methodology with an expected credit loss methodology and requires consideration of a broader range of information to determine credit loss estimates. Implementation of the standard will likely result in an increase to the allowance for credit losses, potentially materially, with a corresponding negative impact to equity. This increase to the allowance for credit losses will also adversely impact the Company's regulatory capital position to the extent that the FRB and other U.S. banking agencies do not amend existing regulatory capital rules in a manner that gives appropriate consideration to the loss-absorbing capacity associated with the anticipated increased allowance for credit loss estimate. It is also possible that the Company's reported earnings and lending activity will be negatively impacted in periods following adoption.

The risks described in our 2018 Form 10-K are not the only risks that we encounter. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, results of operations, financial condition and/or liquidity.

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

Issuer Purchases of Equity Securities

The following table reports information regarding purchases of our common stock during the third quarter of 2019 and the stock repurchase plan approved by the Board:

	Total Number of shares (or units) purchased	Average price paid per share (or unit)	Total number of shares (or units) purchased as part of publicly announced plans or programs [(1)]	Maximum number (or approximate dollar value) of shares (or units) that may yet be purchased under the plans or programs [(1)]
Period (2019)				
July 1 — July 31	—	$ —	—	8,380,581
August 1 — August 31	2,470,068	19.21	2,470,068	5,910,513
September 1 — September 30	337,978	18.63	337,978	5,572,535
Total	2,808,046	$ 19.14	2,808,046	

[1] On April 24, 2019, the Board of Directors increased the authorized repurchase plan by 10,000,000 common shares, or 4.9% of the outstanding common shares excluding shares of treasury stock at September 30, 2019. Repurchases may be made at management's discretion through open market purchases and block trades in accordance with SEC and regulatory requirements. Any shares repurchased will be held as Treasury stock and made available for general corporate purposes.

Item 3. Defaults Upon Senior Securities

Not Applicable.

Item 4. Mine Safety Disclosure

Not Applicable.

Item 5. Other Information

Not Applicable.

Item 6. Exhibits

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 of the Company's Quarterly Report on Form 10-Q filed November 2, 2018).
3.2	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed on May 24, 2017 (File No. 001-35385)).
4.1	Form of Common Stock Certificate of the Company (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed on November 1, 2013 (File No. 001-35385)).
4.2	Form of Corporate Governance Agreement (incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed on August 7, 2012 (File No. 001-35385)).
4.3	Deposit Agreement and specimen receipt attached as Exhibit A thereto, dated as of March 19, 2013 among Astoria Financial Corporation, Computershare Shareowner Services, LLC, as Depositary, and the holders of the depositary receipts (incorporated by reference to Exhibit 4.3 of the Company's Registration Statement on Form S-4 filed on April 5, 2017 (File No. 333-217153)).
4.4	First Amendment to the Deposit Agreement, dated as of October 2, 2017, among Sterling Bancorp, Computershare Shareowner Services, LLC, as Depositary, and the holders of the depositary receipts (incorporated by reference to Exhibit 4.4 of the Company's Quarterly Report on Form 10-Q filed on November 3, 2017 (File No. 001-35385)).
4.5	Certificate of Designations of 6.50% Non-Cumulative, Perpetual Preferred Stock, Series A of Sterling Bancorp (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed on October 2, 2017 (File No. 001-35385)).
4.6	Form of Certificate of 6.5% Non-Cumulative Perpetual Preferred Stock, Series A (incorporated by reference to Exhibit 4.2 of the Company's Form 8-A12B filed on September 28, 2017 (File No. 001-35385)).
31.1	Certification of the Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
31.2	Certification of the Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
32.0	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
101.INS	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
101.SCH	XBRL Taxonomy Extension schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB	XBRL Taxonomy Extension Calculation Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document

The Company agrees to furnish to the SEC, upon request, any instrument with respect to long-term debt that the Company has not filed as an exhibit pursuant to the exemption provided by Item 601(b)(4)(iii)(A) of Regulation S-K.

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.

Sterling Bancorp

Date: November 1, 2019

By: */s/ Jack Kopnisky*

Jack Kopnisky
President, Chief Executive Officer and Director
(Principal Executive Officer)

Date: November 1, 2019

By: */s/ Luis Massiani*

Luis Massiani
Senior Executive Vice President and Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

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Section 2: EX-31.1 (EXHIBIT 31.1)

Exhibit 31.1

Certification of Principal Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Jack Kopnisky, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Sterling Bancorp;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of 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 1, 2019

By: */s/ Jack Kopnisky*
Jack Kopnisky
President, Chief Executive Officer and Director
(Principal Executive Officer)

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Section 3: EX-31.2 (EXHIBIT 31.2)

Exhibit 31.2

Certification of Principal Financial Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Luis Massiani, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Sterling Bancorp;

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

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

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

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

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

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

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

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of 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 1, 2019

By: */s/ Luis Massiani*
Luis Massiani
Senior Executive Vice President
Chief Financial Officer
Principal Accounting Officer
(Principal Financial Officer)

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Section 4: EX-32.0 (EXHIBIT 32.0)

Exhibit 32

Certification of Principal Executive Officer and Principal Financial Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Jack Kopnisky, Chief Executive Officer and Luis Massiani, Chief Financial Officer of Sterling Bancorp (the "Company") each certify in his capacity

as an officer of the Company that he has reviewed the Quarterly Report on Form 10-Q for the nine months ended September 30, 2019 and that to the best of his knowledge:

(1) the report fully complies with the requirements of Sections 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.

Date:	November 1, 2019	By:	*/s/ Jack Kopnisky*
			Jack Kopnisky
			President, Chief Executive Officer and Director
			(Principal Executive Officer)

Date:	November 1, 2019	By:	/s/ Luis Massiani
			Luis Massiani
			Senior Executive Vice President
			Chief Financial Officer
			Principal Accounting Officer
			(Principal Financial Officer)

A signed original of this written statement required by Section 906 has been provided to Sterling Bancorp and will be retained by Sterling Bancorp and furnished to the Securities and Exchange Commission or its staff upon request.

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