

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

FORM 10-Q

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

For the Quarterly Period Ended June 30, 2018

or

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

Commission File Number: 0-12507

ARROW FINANCIAL CORPORATION

(Exact name of registrant as specified in its charter)

New York

(State or other jurisdiction of
incorporation or organization)

22-2448962

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

250 GLEN STREET, GLENS FALLS, NEW YORK 12801

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (518) 745-1000

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

(Do not check if a smaller reporting company)

Smaller reporting company

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 standard 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.

Class
Common Stock, par value \$1.00 per share

Outstanding as of July 31, 2018
14,015,969

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PART I - FINANCIAL INFORMATION

Item 1.

FINANCIAL STATEMENTS

**ARROW FINANCIAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS**

(In Thousands, Except Share and Per Share Amounts)
(Unaudited)

	June 30, 2018	December 31, 2017	June 30, 2017
	<u> </u>	<u> </u>	<u> </u>
ASSETS			
Cash and Due From Banks	\$ 38,552	\$ 42,562	\$ 39,105
Interest-Bearing Deposits at Banks	22,189	30,276	26,972
Investment Securities:			
Available-for-Sale	325,387	300,200	327,392
Held-to-Maturity (Approximate Fair Value of \$292,605 at June 30, 2018; \$335,901 at December 31, 2017; and \$350,355 at June 30, 2017)	297,885	335,907	348,018
Equity Securities	1,802	—	—
Other Investments	11,089	9,949	11,035
Loans	2,057,862	1,950,770	1,878,632
Allowance for Loan Losses	(19,640)	(18,586)	(17,442)
Net Loans	<u>2,038,222</u>	<u>1,932,184</u>	<u>1,861,190</u>
Premises and Equipment, Net	28,104	27,619	26,565
Goodwill	21,873	21,873	21,873
Other Intangible Assets, Net	2,060	2,289	2,482
Other Assets	58,008	57,606	57,089
Total Assets	<u>\$ 2,845,171</u>	<u>\$ 2,760,465</u>	<u>\$ 2,721,721</u>
LIABILITIES			
Noninterest-Bearing Deposits	\$ 467,048	\$ 441,945	\$ 433,480
Interest-Bearing Checking Accounts	861,959	907,315	905,624
Savings Deposits	735,217	694,573	679,320
Time Deposits over \$250,000	70,950	38,147	33,630
Other Time Deposits	169,607	163,136	167,984
Total Deposits	<u>2,304,781</u>	<u>2,245,116</u>	<u>2,220,038</u>
Federal Funds Purchased and Securities Sold Under Agreements to Repurchase	60,248	64,966	40,892
Federal Home Loan Bank Overnight Advances	136,000	105,000	122,000
Federal Home Loan Bank Term Advances	45,000	55,000	55,000
Junior Subordinated Obligations Issued to Unconsolidated Subsidiary Trusts	20,000	20,000	20,000
Other Liabilities	19,654	20,780	23,039
Total Liabilities	<u>2,585,683</u>	<u>2,510,862</u>	<u>2,480,969</u>
STOCKHOLDERS' EQUITY			
Preferred Stock, \$5 Par Value; 1,000,000 Shares Authorized	—	—	—
Common Stock, \$1 Par Value; 20,000,000 Shares Authorized (18,481,301 Shares Issued at June 30, 2018; 18,481,301 at December 31, 2017 and 17,943,201 at June 30, 2017)	18,481	18,481	17,943
Additional Paid-in Capital	292,020	290,219	272,187
Retained Earnings	40,326	28,818	35,739
Unallocated ESOP Shares (9,643 Shares at June 30, 2018; 9,643 Shares at December 31, 2017 and 19,466 Shares at June 30, 2017)	(200)	(200)	(400)
Accumulated Other Comprehensive Loss	(11,804)	(8,514)	(6,200)
Treasury Stock, at Cost (4,467,909 Shares at June 30, 2018; 4,541,524 Shares at December 31, 2017 and 4,428,713 Shares at June 30, 2017)	(79,335)	(79,201)	(78,517)
Total Stockholders' Equity	<u>259,488</u>	<u>249,603</u>	<u>240,752</u>
Total Liabilities and Stockholders' Equity	<u>\$ 2,845,171</u>	<u>\$ 2,760,465</u>	<u>\$ 2,721,721</u>

See Notes to Unaudited Interim Consolidated Financial Statements.

ARROW FINANCIAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(In Thousands, Except Per Share Amounts)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
INTEREST AND DIVIDEND INCOME				
Interest and Fees on Loans	\$ 19,909	\$ 17,295	\$ 38,767	\$ 33,697
Interest on Deposits at Banks	158	78	292	138
Interest and Dividends on Investment Securities:				
Fully Taxable	2,048	2,013	3,941	4,003
Exempt from Federal Taxes	1,475	1,540	3,008	3,085
Total Interest and Dividend Income	<u>23,590</u>	<u>20,926</u>	<u>46,008</u>	<u>40,923</u>
INTEREST EXPENSE				
Interest-Bearing Checking Accounts	388	381	775	712
Savings Deposits	711	316	1,233	607
Time Deposits over \$250,000	328	66	532	121
Other Time Deposits	282	233	541	461
Federal Funds Purchased and Securities Sold Under Agreements to Repurchase	16	9	32	16
Federal Home Loan Bank Advances	656	506	1,070	951
Junior Subordinated Obligations Issued to Unconsolidated Subsidiary Trusts	247	188	461	367
Total Interest Expense	<u>2,628</u>	<u>1,699</u>	<u>4,644</u>	<u>3,235</u>
NET INTEREST INCOME	<u>20,962</u>	<u>19,227</u>	<u>41,364</u>	<u>37,688</u>
Provision for Loan Losses	<u>629</u>	<u>422</u>	<u>1,375</u>	<u>780</u>
NET INTEREST INCOME AFTER PROVISION FOR LOAN LOSSES	<u>20,333</u>	<u>18,805</u>	<u>39,989</u>	<u>36,908</u>
NONINTEREST INCOME				
Income From Fiduciary Activities	2,647	2,150	4,844	4,168
Fees for Other Services to Customers	2,570	2,413	4,950	4,670
Insurance Commissions	2,192	2,115	4,095	4,313
Net Gain on Equity Securities	223	—	241	—
Net Gain on Sales of Loans	23	204	61	250
Other Operating Income	256	175	609	351
Total Noninterest Income	<u>7,911</u>	<u>7,057</u>	<u>14,800</u>	<u>13,752</u>
NONINTEREST EXPENSE				
Salaries and Employee Benefits	9,812	9,211	19,181	18,358
Occupancy Expenses, Net	2,420	2,494	4,961	5,038
FDIC Assessments	223	228	440	454
Other Operating Expense	3,737	3,704	7,566	7,262
Total Noninterest Expense	<u>16,192</u>	<u>15,637</u>	<u>32,148</u>	<u>31,112</u>
INCOME BEFORE PROVISION FOR INCOME TAXES	<u>12,052</u>	<u>10,225</u>	<u>22,641</u>	<u>19,548</u>
Provision for Income Taxes	<u>2,322</u>	<u>3,017</u>	<u>4,380</u>	<u>5,709</u>
NET INCOME	<u>\$ 9,730</u>	<u>\$ 7,208</u>	<u>\$ 18,261</u>	<u>\$ 13,839</u>
Average Shares Outstanding ¹:				
Basic	13,975	13,890	13,955	13,889
Diluted	14,058	13,975	14,038	13,989
Per Common Share:				
Basic Earnings	\$ 0.70	\$ 0.52	\$ 1.31	\$ 1.00
Diluted Earnings	0.69	0.52	1.30	0.99

¹ 2017 Share and Per Share Amounts have been restated for the September 28, 2017 3% stock dividend. See Notes to Unaudited Interim Consolidated Financial Statements.

ARROW FINANCIAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In Thousands)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
Net Income	\$ 9,730	\$ 7,208	\$ 18,261	\$ 13,839
Other Comprehensive Income, Net of Tax:				
Net Unrealized Securities Holding Gains (Losses)				
Arising During the Period	(635)	409	(3,120)	456
Amortization of Net Retirement Plan Actuarial Loss	75	72	121	181
Accretion of Net Retirement Plan Prior Service Credit	41	(1)	40	(3)
Other Comprehensive Income (Loss)	<u>(519)</u>	<u>480</u>	<u>(2,959)</u>	<u>634</u>
Comprehensive Income	<u>\$ 9,211</u>	<u>\$ 7,688</u>	<u>\$ 15,302</u>	<u>\$ 14,473</u>

See Notes to Unaudited Interim Consolidated Financial Statements.

ARROW FINANCIAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

(In Thousands, Except Share and Per Share Amounts)
(Unaudited)

	Common Stock	Additional Paid-In Capital	Retained Earnings	Unallo- cated ESOP Shares	Accumu- lated Other Com- prehensive Loss	Treasury Stock	Total
Balance at December 31, 2017	\$ 18,481	\$ 290,219	\$ 28,818	\$ (200)	\$ (8,514)	\$ (79,201)	\$ 249,603
Net Income	—	—	18,261	—	—	—	18,261
Other Comprehensive Loss	—	—	—	—	(2,959)	—	(2,959)
Impact of the Adoption of ASU 2014-09	—	—	(102)	—	—	—	(102)
Impact of the Adoption of ASU 2016-01	—	—	331	—	(331)	—	—
Cash Dividends Paid, \$.50 per Share	—	—	(6,982)	—	—	—	(6,982)
Stock Options Exercised, Net (79,001 Shares)	—	804	—	—	—	888	1,692
Shares Issued Under the Directors' Stock Plan (2,705 Shares)	—	72	—	—	—	31	103
Shares Issued Under the Employee Stock Purchase Plan (7,613 Shares)	—	167	—	—	—	85	252
Shares Issued for Dividend Reinvestment Plans (24,305 Shares)	—	580	—	—	—	276	856
Stock-Based Compensation Expense	—	178	—	—	—	—	178
Purchase of Treasury Stock (40,009 Shares)	—	—	—	—	—	(1,414)	(1,414)
Balance at June 30, 2018	<u>\$ 18,481</u>	<u>\$ 292,020</u>	<u>\$ 40,326</u>	<u>\$ (200)</u>	<u>\$ (11,804)</u>	<u>\$ (79,335)</u>	<u>\$ 259,488</u>
Balance at December 31, 2016	\$ 17,943	\$ 270,880	\$ 28,644	\$ (400)	\$ (6,834)	\$ (77,381)	\$ 232,852
Net Income	—	—	13,839	—	—	—	13,839
Other Comprehensive Income	—	—	—	—	634	—	634
Cash Dividends Paid, \$.485 per Share ¹	—	—	(6,744)	—	—	—	(6,744)
Stock Options Exercised, Net (33,062 Shares)	—	322	—	—	—	379	701
Shares Issued Under the Directors' Stock Plan (3,927 Shares)	—	84	—	—	—	43	127
Shares Issued Under the Employee Stock Purchase Plan (7,300 Shares)	—	160	—	—	—	82	242
Shares Issued for Dividend Reinvestment Plans (24,999 Shares)	—	569	—	—	—	276	845
Stock-Based Compensation Expense	—	172	—	—	—	—	172
Purchase of Treasury Stock (56,908 Shares)	—	—	—	—	—	(1,916)	(1,916)
Balance at June 30, 2017	<u>\$ 17,943</u>	<u>\$ 272,187</u>	<u>\$ 35,739</u>	<u>\$ (400)</u>	<u>\$ (6,200)</u>	<u>\$ (78,517)</u>	<u>\$ 240,752</u>

¹ Cash dividends paid per share have been adjusted for the September 28, 2017 3% stock dividend.
See Notes to Unaudited Interim Consolidated Financial Statements.

ARROW FINANCIAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in Thousands)
(Unaudited)

	Six Months Ended June 30,	
	2018	2017
Cash Flows from Operating Activities:		
Net Income	\$ 18,261	\$ 13,839
Adjustments to Reconcile Net Income to Net Cash Provided by Operating Activities:		
Provision for Loan Losses	1,375	780
Depreciation and Amortization	2,408	2,988
Net Gain on Equity Securities	(241)	—
Loans Originated and Held-for-Sale	(2,354)	(7,646)
Proceeds from the Sale of Loans Held-for-Sale	2,198	8,118
Net Gain on the Sale of Loans	(61)	(250)
Net Loss on the Sale of Premises and Equipment, Other Real Estate Owned and Repossessed Assets	117	122
Contributions to Retirement Benefit Plans	(352)	(459)
Deferred Income Tax Benefit	(261)	(94)
Shares Issued Under the Directors' Stock Plan	103	127
Stock-Based Compensation Expense	178	172
Tax Benefit from Exercise of Stock Options	160	112
Net (Increase) Decrease in Other Assets	186	(559)
Net Increase (Decrease) in Other Liabilities	(673)	1,378
Net Cash Provided By Operating Activities	21,044	18,628
Cash Flows from Investing Activities:		
Proceeds from the Maturities and Calls of Securities Available-for-Sale	25,035	31,867
Purchases of Securities Available-for-Sale	(56,598)	(12,324)
Proceeds from the Maturities and Calls of Securities Held-to-Maturity	39,616	30,262
Purchases of Securities Held-to-Maturity	(2,105)	(33,435)
Net Increase in Loans	(107,598)	(126,524)
Proceeds from the Sales of Premises and Equipment, Other Real Estate Owned and Repossessed Assets	644	539
Purchase of Premises and Equipment	(1,395)	(867)
Proceeds from the Sale of a Subsidiary, Net	49	23
Net Increase in Other Investments	(1,140)	(123)
Net Cash Used By Investing Activities	(103,492)	(110,582)
Cash Flows from Financing Activities:		
Net Increase in Deposits	59,665	103,492
Net Increase (Decrease) in Short-Term Federal Home Loan Bank Borrowings	31,000	(1,000)
Net Increase (Decrease) in Short-Term Borrowings	(4,718)	5,056
Repayments of Federal Home Loan Bank Term Advances	(10,000)	—
Purchase of Treasury Stock	(1,414)	(1,916)
Stock Options Exercised, Net	1,692	701
Shares Issued Under the Employee Stock Purchase Plan	252	242
Shares Issued for Dividend Reinvestment Plans	856	845
Cash Dividends Paid	(6,982)	(6,744)
Net Cash Provided By Financing Activities	70,351	100,676
Net (Decrease) Increase in Cash and Cash Equivalents	(12,097)	8,722
Cash and Cash Equivalents at Beginning of Period	72,838	57,355
Cash and Cash Equivalents at End of Period	\$ 60,741	\$ 66,077
Supplemental Disclosures to Statements of Cash Flow Information:		
Interest on Deposits and Borrowings	\$ 4,530	\$ 3,225
Income Taxes	5,294	5,629
Non-cash Investing and Financing Activity:		
Transfer of Loans to Other Real Estate Owned and Repossessed Assets	402	588

See Notes to Unaudited Interim Consolidated Financial Statements.

NOTES TO INTERIM CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1. ACCOUNTING POLICIES

In the opinion of the management of Arrow Financial Corporation (Arrow, the Company, we, or us), the accompanying unaudited interim consolidated financial statements contain all of the adjustments necessary to present fairly the financial position as of June 30, 2018, December 31, 2017 and June 30, 2017; the results of operations for the three- and six-month periods ended June 30, 2018 and 2017; the consolidated statements of comprehensive income for the three- and six-month periods ended June 30, 2018 and 2017; the changes in stockholders' equity for the six-month periods ended June 30, 2018 and 2017; and the cash flows for the six-month periods ended June 30, 2018 and 2017. All such adjustments are of a normal recurring nature.

Management's Use of Estimates -The preparation of the consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of income and expenses during the reporting period. Our most significant estimate is the allowance for loan losses. Other estimates include the evaluation of other-than-temporary impairment of investment securities, goodwill impairment, pension and other postretirement liabilities and an analysis of a need for a valuation allowance for deferred tax assets. Actual results could differ from those estimates.

A material estimate that is particularly susceptible to significant change in the near term is the allowance for loan losses. In connection with the determination of the allowance for loan losses, management obtains appraisals for properties. The allowance for loan losses is management's best estimate of probable loan losses incurred as of the balance sheet date. While management uses available information to recognize losses on loans, future adjustments to the allowance for loan losses may be necessary based on changes in economic conditions.

The unaudited interim consolidated financial statements should be read in conjunction with the audited annual consolidated financial statements of Arrow for the year ended December 31, 2017, included in Arrow's Annual Report on Form 10-K for the year ended December 31, 2017.

Recently Adopted and Recently Issued Accounting Standards

The following accounting standards have been adopted in the first six months of 2018:

ASU 2014-09 "Revenue from Contracts With Customers (Topic 606)" was adopted as of January 1, 2018. For additional information, see Revenue Recognition under Significant Policy Update in this Note.

ASU 2016-01 "Recognition and Measurement of Financial Assets and Financial Liabilities" (Subtopic 825-10) significantly changed the income statement impact of equity investments. For Arrow, the standard became effective for the first quarter of 2018, and requires that equity investments be measured at fair value, with changes in fair value recognized in net income. The cumulative effect of the January 1, 2018 adoption was an increase to retained earnings of \$331 thousand with a corresponding decrease to Accumulated Other Comprehensive Loss. For periods prior to January 1, 2018, equity securities were classified as available-for-sale and stated at fair value with unrealized gains and losses reported as a separate component of accumulated other comprehensive income, net of tax. ASU 2016-01 also emphasized the existing requirement to use exit prices to measure fair value for disclosure purposes and clarifies that entities not make use of a practicability exception in determining the fair value of loans. Accordingly, we refined the calculation used to determine the disclosed fair value of our loans as part of adopting this standard. See Note 9 to our unaudited interim consolidated financial statements entitled Fair Value of Financial Instruments.

ASU 2016-15 "Statement of Cash Flows (Topic 230) - Classification of Certain Cash Receipts and Cash Payments" will reduce existing diversity in practice with respect to eight specific cash flow issues. Arrow adopted this ASU in the first quarter of 2018.

ASU 2017-01 "Business Combinations" (Topic 805) defines when a set of assets and activities constitutes a business for the purposes of determining whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The amendments in this update allow for a business to consist of inputs, processes, and the ability to create output. For Arrow, the standard became effective in the first quarter of 2018. This update had no effect on our accounting for acquisitions and dispositions of businesses.

ASU 2017-07 "Compensation-Retirement Benefits" (Topic 715) improves the presentation of net periodic pension cost and net periodic post-retirement benefit cost by requiring that an employer disaggregate the service cost component from the other components of net benefit cost. For Arrow, the standard became effective in the first quarter of 2018. In accordance with the practical expedient adoption method, for all periods presented Arrow used the amounts disclosed in the retirement plans footnote for the prior period retrospective reclassification of the non-service cost components out of salaries and benefits and into other operating expenses. The adoption of this change in accounting for pension costs did not have a material impact on our financial position or the results of operations.

ASU 2017-09 "Compensation-Stock Compensation" (Topic 718) provides guidance about which changes to the terms and conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. The guidance highlights the requirements for applying modification accounting and the exception criteria relating to changes in share-based payment terms. For Arrow, the standard became effective in the first quarter of 2018. The adoption of this change in accounting for share-based payment awards did not have a material impact on our financial position or the results of operations in periods subsequent to its adoption.

The following accounting standards have been issued and will become effective for the Company at a future date:

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842) which requires lessees to recognize right-of-use assets and lease liabilities on the balance sheet for all leases with terms longer than 12 months. For a lease with a term of 12 months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize a right-of-use asset and lease liability. Additionally, when measuring assets and liabilities arising from a lease, optional payments should be included only if the lessee is reasonably certain to exercise an option to extend the lease, exercise a purchase option or not exercise an option to terminate the lease. In January 2018, the FASB issued ASU 2018-01, Leases (Topic 842): Land Easement Practical Expedient for Transition to Topic 842. ASU 2018-01 was issued to address concerns about the cost and complexity of complying with the transition provisions of ASU 2018-01. Early adoption is permitted in any interim or annual period. For Arrow, the standard becomes effective in the first quarter of 2019. The Company is in the process of reviewing its existing lease portfolios, including service contracts for embedded leases to evaluate the impact of this standard on its consolidated financial statements and the impact on regulatory capital. The Company does not expect that this new accounting standard will have a material impact on its financial position or the results of operations in periods subsequent to its adoption. As of June 30, 2018, there were less than \$2.2 million in minimum lease payments for existing operating leases of branch and insurance locations with varying expiration dates from 2018 to 2031.

In June 2016, the FASB issued ASU 2016-13 "Financial Instruments - Credit Losses" (Topic 326) which will change the way financial entities measure expected credit losses for financial assets, primarily loans. Under this ASU, the "incurred loss" model will be replaced with an "expected loss" model which will recognize losses over the life of the instrument and requires consideration of a broader range of reasonable and supportable information. Currently, credit losses on available-for-sale securities reduce the carrying value of the instrument and cannot be reversed. Under this ASU, the amount of the credit loss is carried as a valuation allowance and can be reversed. The standard also requires expanded credit quality disclosures. For Arrow, the standard is effective for the first quarter of 2020 and early adoption is allowed in 2019. The Company plans on adopting the standard in the first quarter of 2020, in order to maximize the accumulation of data needed to calculate the new CECL methodologies. The ASU describes several acceptable methodologies for calculating expected losses on a loan or a pool of loans and requires additional disclosures. The initial adjustment will not be reported in earnings, but as the cumulative effect of a change in accounting principle. The FASB's Transition Research Group for credit losses still has several outstanding unresolved questions, some of which may have a significant impact on CECL calculations. The Company is in the process of assessing the impact of this new accounting standard as required changes to its credit loss estimation process and models are being evaluated. This will likely have the effect of reducing shareholders' equity, but the Company expects to remain a well-capitalized financial institution under current regulatory calculations.

In January 2017, the FASB issued ASU 2017-04 "Intangibles-Goodwill and Other" (Topic 350) simplifies the procedures for evaluating impairment of goodwill. Prior to the adoption of this standard, entities were required to perform procedures to determine the fair value of the underlying assets and liabilities for determining the fair value of assets and liabilities in a business combination. This additional step to impairment testing has been eliminated. Under this ASU, entities will perform goodwill impairment testing by comparing the fair value of a reporting unit to its carrying value. For Arrow, the standard becomes effective in the first quarter of 2019, however, early adoption is permitted. This amendment will not affect our assessment of goodwill impairment since we currently perform the analysis of comparing carrying value to fair value of our reporting units that have goodwill and we have not had to perform a Step 2 Impairment Test to date.

In March 2017, the FASB issued ASU 2017-08 "Receivables-Nonrefundable Fees and Other Costs" amends the amortization period for certain purchased callable debt securities held at a premium. This shortens the amortization period for the premium to the earliest call date. Under GAAP, entities generally amortize the premium as an adjustment of yield over the contractual life of the instrument. For Arrow, the standard becomes effective in the first quarter of 2019. We do not expect that the adoption of this change in accounting for certain callable debt securities will have a material impact on our financial position or the results of operations in periods subsequent to its adoption.

Significant Accounting Policy Update:

Revenue Recognition - Accounting Standard Codification ("ASC") Topic 606, Revenue from Contracts with Customers, establishes principles for reporting information about the nature, amount, timing and uncertainty of revenue and cash flows arising from the entity's contracts to provide goods or services to customers. The core principle requires an entity to recognize revenue to depict the transfer of goods or services promised to a customer in an amount that reflects the consideration the entity expects to receive in exchange for those goods or services as performance obligations are satisfied.

The Company adopted ASC Topic 606 as of January 1, 2018 using the modified retrospective approach, and have identified the recognition of revenue related to specific types of fiduciary activities and specific types of revenue from insurance commissions to be in the scope of this guidance. Regarding fiduciary activities, under prior GAAP, revenue was recognized from settling client estates over the time period the work was performed. With the adoption of Topic 606, revenue is recognized when the performance obligation is completed, which is when the settlement of the client estate is closed. The impact of this change in revenue recognition was not material to our consolidated financial statements. Regarding revenue from property and casualty insurance policies in which the revenue is recorded when the client elected to pay premiums in installments, under prior GAAP, revenue was recognized when the client premiums were billed. With the adoption of Topic 606, revenue is required to be recognized when the performance obligation is substantially completed, i.e., when the insurance policy is issued. The impact of recognizing total policy commission revenue versus our current practice of recognizing revenue when the client is billed is not material on our consolidated financial statements. The adoption of Topic 606 related to the previously described fiduciary activity and insurance commission required a cumulative effect adjustment as of January 1, 2018 to decrease retained earnings by \$102 thousand.

The majority of the Company's revenue-generating transactions are not subject to ASC Topic 606, including revenue generated from financial instruments, such as loans and investment securities which are presented in our consolidated income statements as components of net interest income. The following is a description of principal activities from which the Company generates its revenue from noninterest income sources that are within the scope of ASC Topic 606:

Income from Fiduciary Activities: represents revenue derived mainly through the management of client investments which is based on the market value of these assets and the fee schedule contained in the applicable account management agreement. Since the revenue is mainly based on the market value of assets, this amount can be volatile as financial markets increase and decrease based on various economic factors. The terms of the account management agreements generally specify that the performance obligations are completed each quarter. Accordingly, we mainly recognize revenue from fiduciary activities on a quarterly basis.

Fees for Other Services to Customers: represents general service fees for monthly deposit account maintenance and account activity plus fees from other deposit-based services. Revenue is recognized when the performance obligation is completed, which is generally on a monthly basis for account maintenance services, or upon the completion of a deposit-related transaction. Payment for such performance obligations are generally received at the time the performance obligations are satisfied.

Insurance Commissions: represents commissions and fees paid by insurance carriers for both property and casualty insurance policies, and for services performed for employment benefits clients. Revenue from our property and casualty business is recognized when our performance obligation is satisfied, which is generally the effective date of the bound coverage since there are no significant performance obligations remaining. Revenue from our employment benefit brokerage business is recognized when our benefit servicing performance obligations are satisfied, generally on a monthly basis.

Note 2. INVESTMENT SECURITIES (In Thousands)

Management determines the appropriate classification of securities at the time of purchase. Securities reported as held-to-maturity are those debt securities which Arrow has both the positive intent and ability to hold to maturity and are stated at amortized cost. Securities available-for-sale are reported at fair value, with unrealized gains and losses reported in accumulated other comprehensive income or loss, net of taxes. Beginning January 1, 2018, upon adoption of ASU 2016-01, equity securities with readily determinable fair values are stated at fair value with realized and unrealized gains and losses reported in income. For periods prior to January 1, 2018, equity securities were classified as available-for-sale and stated at fair value with unrealized gains and losses reported as a separate component of accumulated other comprehensive income, net of tax.

The following table is the schedule of Available-For-Sale Securities at June 30, 2018, December 31, 2017 and June 30, 2017:

Available-For-Sale Securities						
	U.S. Government & Agency Obligations	State and Municipal Obligations	Mortgage- Backed Securities	Corporate and Other Debt Securities	Mutual Funds and Equity Securities	Total Available- For-Sale Securities
June 30, 2018						
Available-For-Sale Securities, at Amortized Cost	\$ 60,199	\$ 3,377	\$ 267,113	\$ 1,000	\$ —	\$ 331,689
Available-For-Sale Securities, at Fair Value	59,615	3,383	261,589	800	—	325,387
Gross Unrealized Gains	—	6	332	—	—	338
Gross Unrealized Losses	584	—	5,856	200	—	6,640
Available-For-Sale Securities, Pledged as Collateral						282,481
<u>Maturities of Debt Securities, at Amortized Cost:</u>						
Within One Year	\$ 42,683	\$ 2,124	\$ 1,447	\$ —		\$ 46,254
From 1 - 5 Years	17,516	773	135,939	—		154,228
From 5 - 10 Years	—	—	79,608	—		79,608
Over 10 Years	—	480	50,119	1,000		51,599
<u>Maturities of Debt Securities, at Fair Value:</u>						
Within One Year	\$ 42,396	\$ 2,125	\$ 1,458	\$ —		\$ 45,979
From 1 - 5 Years	17,219	778	131,431	—		149,428
From 5 - 10 Years	—	—	78,552	—		78,552
Over 10 Years	—	480	50,148	800		51,428
<u>Securities in a Continuous Loss Position, at Fair Value:</u>						
Less than 12 Months	\$ 17,218	\$ 1,797	\$ 144,265	\$ —	\$ —	\$ 163,280
12 Months or Longer	42,397	—	72,209	800	—	115,406
Total	<u>\$ 59,615</u>	<u>\$ 1,797</u>	<u>\$ 216,474</u>	<u>\$ 800</u>	<u>\$ —</u>	<u>\$ 278,686</u>
Number of Securities in a Continuous Loss Position	14	6	79	1	—	100
<u>Unrealized Losses on Securities in a Continuous Loss Position:</u>						
Less than 12 Months	\$ 297	\$ —	\$ 2,409	\$ —	\$ —	\$ 2,706
12 Months or Longer	287	—	3,447	200	—	3,934
Total	<u>\$ 584</u>	<u>\$ —</u>	<u>\$ 5,856</u>	<u>\$ 200</u>	<u>\$ —</u>	<u>\$ 6,640</u>
<u>Disaggregated Details:</u>						
US Treasury Obligations, at Amortized Cost	\$ —					
US Treasury Obligations, at Fair Value	—					
US Agency Obligations, at Amortized Cost	60,199					
US Agency Obligations, at Fair Value	59,615					

Available-For-Sale Securities

	U.S. Government & Agency Obligations	State and Municipal Obligations	Mortgage- Backed Securities	Corporate and Other Debt Securities	Mutual Funds and Equity Securities	Total Available- For-Sale Securities
US Government Agency Securities, at Amortized Cost			\$ 68,030			
US Government Agency Securities, at Fair Value			68,083			
Government Sponsored Entity Securities, at Amortized Cost			199,083			
Government Sponsored Entity Securities, at Fair Value			193,506			
December 31, 2017						
Available-For-Sale Securities, at Amortized Cost	\$ 60,328	\$ 10,351	\$ 229,077	\$ 1,000	\$ 1,120	\$ 301,876
Available-For-Sale Securities, at Fair Value	59,894	10,349	227,596	800	1,561	300,200
Gross Unrealized Gains	—	9	485	—	441	935
Gross Unrealized Losses	434	11	1,966	200	—	2,611
Available-For-Sale Securities, Pledged as Collateral, at Fair Value						183,052
<u>Securities in a Continuous Loss Position, at Fair Value:</u>						
Less than 12 Months	\$ 20,348	\$ 8,498	\$ 70,930	\$ —	\$ —	\$ 99,776
12 Months or Longer	39,546	—	80,759	800	—	121,105
Total	<u>\$ 59,894</u>	<u>\$ 8,498</u>	<u>\$ 151,689</u>	<u>\$ 800</u>	<u>\$ —</u>	<u>\$ 220,881</u>
Number of Securities in a Continuous Loss Position	14	36	55	1	—	106
<u>Unrealized Losses on Securities in a Continuous Loss Position:</u>						
Less than 12 Months	\$ 172	\$ 11	\$ 363	\$ —	\$ —	\$ 546
12 Months or Longer	262	—	1,603	200	—	2,065
Total	<u>\$ 434</u>	<u>\$ 11</u>	<u>\$ 1,966</u>	<u>\$ 200</u>	<u>\$ —</u>	<u>\$ 2,611</u>
<u>Disaggregated Details:</u>						
US Treasury Obligations, at Amortized Cost	\$ —					
US Treasury Obligations, at Fair Value	—					
US Agency Obligations, at Amortized Cost	60,328					
US Agency Obligations, at Fair Value	59,894					
US Government Agency Securities, at Amortized Cost			\$ 40,832			
US Government Agency Securities, at Fair Value			40,832			
Government Sponsored Entity Securities, at Amortized Cost			188,245			
Government Sponsored Entity Securities, at Fair Value			186,764			

Available-For-Sale Securities

	U.S. Government & Agency Obligations	State and Municipal Obligations	Mortgage- Backed Securities	Corporate and Other Debt Securities	Mutual Funds and Equity Securities	Total Available- For-Sale Securities
June 30, 2017						
Available-For-Sale Securities, at Amortized Cost	\$ 146,914	\$ 15,410	\$ 161,324	\$ 2,500	\$ 1,120	\$ 327,268
Available-For-Sale Securities, at Fair Value	147,085	15,441	161,077	2,299	1,490	327,392
Gross Unrealized Gains	252	31	964	—	370	1,617
Gross Unrealized Losses	81	—	1,211	201	—	1,493
Available-For-Sale Securities, Pledged as Collateral						267,912
<u>Securities in a Continuous Loss Position, at Fair Value:</u>						
Less than 12 Months	\$ 49,176	\$ 543	\$ 97,870	\$ 1,499	\$ —	\$ 149,088
12 Months or Longer	—	—	—	800	—	800
Total	<u>\$ 49,176</u>	<u>\$ 543</u>	<u>\$ 97,870</u>	<u>\$ 2,299</u>	<u>\$ —</u>	<u>\$ 149,888</u>
Number of Securities in a Continuous Loss Position	13	2	34	3	—	52
<u>Unrealized Losses on Securities in a Continuous Loss Position:</u>						
Less than 12 Months	\$ 81	\$ —	\$ 1,211	\$ 1	\$ —	\$ 1,293
12 Months or Longer	—	—	—	200	—	200
Total	<u>\$ 81</u>	<u>\$ —</u>	<u>\$ 1,211</u>	<u>\$ 201</u>	<u>\$ —</u>	<u>\$ 1,493</u>
<u>Disaggregated Details:</u>						
US Treasury Obligations, at Amortized Cost	\$ 54,597					
US Treasury Obligations, at Fair Value	\$ 54,676					
US Agency Obligations, at Amortized Cost	\$ 92,317					
US Agency Obligations, at Fair Value	92,409					
US Government Agency Securities, at Amortized Cost			\$ 3,740			
US Government Agency Securities, at Fair Value			3,756			
Government Sponsored Entity Securities, at Amortized Cost			157,584			
Government Sponsored Entity Securities, at Fair Value			157,321			

The following table is the schedule of Held-To-Maturity Securities at June 30, 2018, December 31, 2017 and June 30, 2017:

Held-To-Maturity Securities				
	State and Municipal Obligations	Mortgage- Backed Securities	Corporate and Other Debt Securities	Total Held-To Maturity Securities
June 30, 2018				
Held-To-Maturity Securities, at Amortized Cost	\$ 244,016	\$ 53,869	\$ —	\$ 297,885
Held-To-Maturity Securities, at Fair Value	239,841	52,764	—	292,605
Gross Unrealized Gains	497	—	—	497
Gross Unrealized Losses	4,672	1,105	—	5,777
Held-To-Maturity Securities, Pledged as Collateral				278,627
<u>Maturities of Debt Securities, at Amortized Cost:</u>				
Within One Year	\$ 26,037	\$ —	\$ —	\$ 26,037
From 1 - 5 Years	91,235	46,134	—	137,369
From 5 - 10 Years	124,073	7,735	—	131,808
Over 10 Years	2,671	—	—	2,671
<u>Maturities of Debt Securities, at Fair Value:</u>				
Within One Year	\$ 26,092	\$ —	\$ —	\$ 26,092
From 1 - 5 Years	90,877	45,207	—	136,084
From 5 - 10 Years	120,206	7,556	—	127,762
Over 10 Years	2,667	—	—	2,667
<u>Securities in a Continuous Loss Position, at Fair Value:</u>				
Less than 12 Months	\$ 68,612	\$ 49,977	\$ —	\$ 118,589
12 Months or Longer	90,948	2,787	—	93,735
Total	<u>\$ 159,560</u>	<u>\$ 52,764</u>	<u>\$ —</u>	<u>\$ 212,324</u>
Number of Securities in a Continuous Loss Position	465	47	—	512
<u>Unrealized Losses on Securities in a Continuous Loss Position:</u>				
Less than 12 Months	\$ 633	\$ 1,021	\$ —	\$ 1,654
12 Months or Longer	4,039	84	—	4,123
Total	<u>\$ 4,672</u>	<u>\$ 1,105</u>	<u>\$ —</u>	<u>\$ 5,777</u>
<u>Disaggregated Details:</u>				
US Government Agency Securities, at Amortized Cost		\$ 3,265		
US Government Agency Securities, at Fair Value		2,346		
Government Sponsored Entity Securities, at Amortized Cost		50,604		
Government Sponsored Entity Securities, at Fair Value		50,418		

Held-To-Maturity Securities

	State and Municipal Obligations	Mortgage- Backed Securities	Corporate and Other Debt Securities	Total Held-To Maturity Securities
<u>December 31, 2017</u>				
Held-To-Maturity Securities, at Amortized Cost	\$ 275,530	\$ 60,377	\$ —	\$ 335,907
Held-To-Maturity Securities, at Fair Value	275,353	60,548	—	335,901
Gross Unrealized Gains	1,691	269	—	1,960
Gross Unrealized Losses	1,868	98	—	1,966
Held-To-Maturity Securities, Pledged as Collateral				318,622
<u>Securities in a Continuous Loss Position, at Fair Value:</u>				
Less than 12 Months	\$ 55,648	\$ 13,764	\$ —	\$ 69,412
12 Months or Longer	65,152	3,257	—	68,409
Total	<u>\$ 120,800</u>	<u>\$ 17,021</u>	<u>\$ —</u>	<u>\$ 137,821</u>
Number of Securities in a Continuous Loss Position	352	14	—	366
<u>Unrealized Losses on Securities in a Continuous Loss Position:</u>				
Less than 12 Months	\$ 442	\$ 56	\$ —	\$ 498
12 Months or Longer	1,425	43	—	1,468
Total	<u>\$ 1,867</u>	<u>\$ 99</u>	<u>\$ —</u>	<u>\$ 1,966</u>
<u>Disaggregated Details:</u>				
US Government Agency Securities, at Amortized Cost		\$ 2,680		
US Government Agency Securities, at Fair Value		2,661		
Government Sponsored Entity Securities, at Amortized Cost		57,697		
Government Sponsored Entity Securities, at Fair Value		57,887		
<u>June 30, 2017</u>				
Held-To-Maturity Securities, at Amortized Cost	\$ 280,485	\$ 67,533	\$ —	\$ 348,018
Held-To-Maturity Securities, at Fair Value	282,157	68,198	—	350,355
Gross Unrealized Gains	3,208	677	—	3,885
Gross Unrealized Losses	1,536	12	—	1,548
Held-To-Maturity Securities, Pledged as Collateral				327,820
<u>Securities in a Continuous Loss Position, at Fair Value:</u>				
Less than 12 Months	\$ 93,046	\$ 4,338	\$ —	\$ 97,384
12 Months or Longer	403	—	—	403
Total	<u>\$ 93,449</u>	<u>\$ 4,338</u>	<u>\$ —</u>	<u>\$ 97,787</u>
Number of Securities in a Continuous Loss Position	263	9	—	272
<u>Unrealized Losses on Securities in a Continuous Loss Position:</u>				
Less than 12 Months	\$ 1,534	\$ 12	\$ —	\$ 1,546
12 Months or Longer	2	—	—	2
Total	<u>\$ 1,536</u>	<u>\$ 12</u>	<u>\$ —</u>	<u>\$ 1,548</u>

Held-To-Maturity Securities

	State and Municipal Obligations	Mortgage- Backed Securities	Corporate and Other Debt Securities	Total Held-To Maturity Securities
June 30, 2017				
<u>Disaggregated Details:</u>				
US Government Agency Securities, at Amortized Cost		\$ 3,106		
US Government Agency Securities, at Fair Value			3,121	
Government Sponsored Entity Securities, at Amortized Cost		64,427		
Government Sponsored Entity Securities, at Fair Value		65,077		

In the tables above, maturities of mortgage-backed securities are included based on their expected average lives. Actual maturities will differ from the table above because issuers may have the right to call or prepay obligations with, or without, prepayment penalties.

Securities in a continuous loss position, in the tables above for June 30, 2018, December 31, 2017 and June 30, 2017, do not reflect any deterioration of the credit worthiness of the issuing entities.

The state and municipal obligations are general obligations supported by the general taxing authority of the issuer, and in some cases are insured. Obligations issued by school districts are supported by state aid. An in-house credit analysis is performed for municipal securities based upon data that has been submitted by the issuers to the New York State Comptroller. That analysis reflects satisfactory credit worthiness of the municipalities. Subsequent to June 30, 2018, and through the date of the filing of this Quarterly Report on Form 10-Q Arrow held no securities with significant credit deterioration.

The unrealized losses on temporarily impaired securities are primarily the result of changes in interest rates for fixed rate securities where the interest rate received is less than the current rate available for new offerings of similar securities, changes in market spreads as a result of shifts in supply and demand, and/or changes in the level of prepayments for mortgage related securities. Because we do not currently intend to sell any temporarily impaired securities, and because it is not more likely-than-not that we would be required to sell the securities prior to recovery, the impairment is considered temporary.

The following table is the schedule of Equity Securities at June 30, 2018. Upon the adoption of ASU 2016-01 effective January 1, 2018, Equity Securities are not included in Securities Available-For-Sale since unrealized gains and losses are now recorded in the Consolidated Statements of Income. Prior to January 1, 2018, Equity Securities were included in Securities Available-For-Sale.

Equity Securities

<u>June 30, 2018</u>	
Equity Securities, at Fair Value	\$ 1,802

The following is a summary of realized and unrealized gains and losses recognized in net income on equity securities during the three- and six-month periods ended June 30, 2018:

	Three months ended June 30, 2018	Six months ended June 30, 2018
Net Gain on Equity Securities	\$ 223	\$ 241
Less: Net gain (loss) recognized during the reporting period on equity securities sold during the period	—	—
Unrealized net gain recognized during the reporting period on equity securities still held at the reporting date	\$ 223	\$ 241

Note 3. LOANS (In Thousands)

Loan Categories and Past Due Loans

The following table presents loan balances outstanding as of June 30, 2018, December 31, 2017 and June 30, 2017 and an analysis of the recorded investment in loans that are past due at these dates. Generally, Arrow considers an amortizing loan past due 30 or more days when the borrower is two payments past due. Loans held-for-sale of \$544, \$327 and \$261 as of June 30, 2018, December 31, 2017 and June 30, 2017, respectively, are included in the residential real estate balances for current loans.

	Commercial		Consumer	Residential	Total
	Commercial	Real Estate			
<u>June 30, 2018</u>					
Loans Past Due 30-59 Days	\$ 3	\$ —	\$ 4,769	\$ 2,004	\$ 6,776
Loans Past Due 60-89 Days	15	—	720	273	1,008
Loans Past Due 90 or more Days	28	963	231	771	1,993
Total Loans Past Due	46	963	5,720	3,048	9,777
Current Loans	118,835	463,430	656,188	809,632	2,048,085
Total Loans	<u>\$ 118,881</u>	<u>\$ 464,393</u>	<u>\$ 661,908</u>	<u>\$ 812,680</u>	<u>\$ 2,057,862</u>
Loans 90 or More Days Past Due and Still Accruing Interest					
	\$ —	\$ —	\$ 28	\$ 142	\$ 170
Nonaccrual Loans	633	963	459	1,825	3,880
<u>December 31, 2017</u>					
Loans Past Due 30-59 Days	\$ 139	\$ —	\$ 5,891	\$ 2,094	\$ 8,124
Loans Past Due 60-89 Days	19	—	1,215	509	1,743
Loans Past Due 90 or more Days	99	807	513	1,422	2,841
Total Loans Past Due	257	807	7,619	4,025	12,708
Current Loans	128,992	443,441	595,208	770,421	1,938,062
Total Loans	<u>\$ 129,249</u>	<u>\$ 444,248</u>	<u>\$ 602,827</u>	<u>\$ 774,446</u>	<u>\$ 1,950,770</u>
Loans 90 or More Days Past Due and Still Accruing Interest					
	\$ —	\$ —	\$ 6	\$ 313	\$ 319
Nonaccrual Loans	\$ 588	\$ 1,530	\$ 653	\$ 2,755	\$ 5,526
<u>June 30, 2017</u>					
Loans Past Due 30-59 Days	\$ 138	\$ —	\$ 4,123	\$ 122	\$ 4,383
Loans Past Due 60-89 Days	40	865	1,265	2,591	4,761
Loans Past Due 90 or more Days	249	357	391	2,115	3,112
Total Loans Past Due	427	1,222	5,779	4,828	12,256
Current Loans	125,832	440,587	572,975	726,982	1,866,376
Total Loans	<u>\$ 126,259</u>	<u>\$ 441,809</u>	<u>\$ 578,754</u>	<u>\$ 731,810</u>	<u>\$ 1,878,632</u>
Loans 90 or More Days Past Due and Still Accruing Interest					
	\$ 120	\$ 357	\$ 75	\$ 1,269	\$ 1,821
Nonaccrual Loans	\$ 653	\$ 1,343	\$ 419	\$ 2,807	\$ 5,222

The Company disaggregates its loan portfolio into the following four categories:

Commercial - The Company offers a variety of loan options to meet the specific needs of commercial customers including term loans, time notes and lines of credit. Such loans are made available to businesses for working capital needs such as inventory and receivables, business expansion and equipment purchases. Generally, a collateral lien is placed on equipment or other assets owned by the borrower. These loans carry a higher risk than commercial real estate loans due to the nature of the underlying collateral, which can be business assets such as equipment and accounts receivable and generally have a lower liquidation value than real estate. In the event of default by the borrower, the Company may be required to liquidate collateral at deeply discounted values. To reduce the risk, management usually obtains personal guarantees of the borrowers.

Commercial Real Estate - The Company offers commercial real estate loans to finance real estate purchases, refinancings, expansions and improvements to commercial properties. Commercial real estate loans are made to finance the purchases of real property which generally consists of real estate with completed structures. These commercial real estate loans are secured by first liens on the real estate, which may include apartments, commercial structures, housing businesses, healthcare facilities, and both owner- and non-owner-occupied facilities. These loans are typically less risky than commercial loans, since they are secured by real estate and buildings, and are generally originated in amounts of no more than 80% of the appraised value of the property. However, the Company also offers commercial construction and land development loans to finance projects, primarily within the communities that we serve. Many projects will ultimately be used by the borrowers' businesses, while others are developed for resale. These real estate loans are also secured by first liens on the real estate, which may include apartments, commercial structures, housing business, healthcare facilities and both owner-occupied and non-owner-occupied facilities. There is enhanced risk during the construction period, since the loan is secured by an incomplete project.

Consumer Loans - The Company offers a variety of consumer installment loans to finance personal expenditures. Most of these loans carry a fixed rate of interest with principal repayment terms typically ranging from one to five years, based upon the nature of the collateral and the size of the loan. In addition to installment loans, the Company also offers personal lines of credit and overdraft protection. Several loans are unsecured, which carry a higher risk of loss. Also included in this category are automobile loans. The Company primarily finances the purchases of automobiles indirectly through dealer relationships located throughout upstate New York and Vermont. Most of these loans carry a fixed rate of interest with principal repayment terms typically ranging from three to seven years. Indirect consumer loans are underwritten on a secured basis using the underlying collateral being financed.

Residential - Residential real estate loans consist primarily of loans secured by first or second mortgages on primary residences. The Company originates adjustable-rate and fixed-rate one-to-four-family residential real estate loans for the construction, purchase or refinancing of an existing mortgage. These loans are collateralized primarily by owner-occupied properties generally located in the Company's market area. Loans on one-to-four-family residential real estate are generally originated in amounts of no more than 80% of the purchase price or appraised value (whichever is lower), or have private mortgage insurance. The Company's underwriting analysis for residential mortgage loans typically includes credit verification, independent appraisals, and a review of the borrower's financial condition. Mortgage title insurance and hazard insurance are normally required. It is the Company's general practice to underwrite residential real estate loans to secondary market standards. Construction loans have a unique risk, because they are secured by an incomplete dwelling. This risk is reduced through periodic site inspections, including one at each loan draw period. In addition, the Company offers fixed home equity loans as well as home equity lines of credit to consumers to finance home improvements, debt consolidation, education and other uses. The Company's policy allows for a maximum loan to value ratio of 80%, although periodically higher advances are allowed. The Company originates home equity lines of credit and second mortgage loans (loans secured by a second junior lien position on one-to-four-family residential real estate). Risk is generally reduced through underwriting criteria, which include credit verification, appraisals, a review of the borrower's financial condition, and personal cash flows. A security interest, with title insurance when necessary, is taken in the underlying real estate.

Allowance for Loan Losses

The following table presents a roll-forward of the allowance for loan losses and other information pertaining to the allowance for loan losses:

	Allowance for Loan Losses				
	Commercial	Commercial Real Estate	Consumer	Residential	Total
<u>Roll-forward of the Allowance for Loan Losses for the Quarterly Periods:</u>					
March 31, 2018	\$ 1,119	\$ 5,412	\$ 8,019	\$ 4,507	\$ 19,057
Charge-offs	—	—	(248)	(16)	(264)
Recoveries	—	3	215	—	218
Provision	(175)	423	351	30	629
June 30, 2018	<u>\$ 944</u>	<u>\$ 5,838</u>	<u>\$ 8,337</u>	<u>\$ 4,521</u>	<u>\$ 19,640</u>
March 31, 2017	\$ 939	\$ 5,449	\$ 6,702	\$ 4,126	\$ 17,216
Charge-offs	(23)	—	(277)	(5)	(305)
Recoveries	5	—	104	—	109
Provision	4	(466)	776	108	422
June 30, 2017	<u>\$ 925</u>	<u>\$ 4,983</u>	<u>\$ 7,305</u>	<u>\$ 4,229</u>	<u>\$ 17,442</u>

Allowance for Loan Losses

	Commercial				Total
	Commercial	Real Estate	Consumer	Residential	
<u>Roll-forward of the Allowance for Loan Losses for the Year-to-Date Periods:</u>					
December 31, 2017	\$ 1,873	\$ 4,504	\$ 7,604	\$ 4,605	\$ 18,586
Charge-offs	(16)	—	(595)	(23)	(634)
Recoveries	—	12	301	—	313
Provision	(913)	1,322	1,027	(61)	1,375
June 30, 2018	<u>\$ 944</u>	<u>\$ 5,838</u>	<u>\$ 8,337</u>	<u>\$ 4,521</u>	<u>\$ 19,640</u>
December 31, 2016	\$ 1,017	\$ 5,677	\$ 6,120	\$ 4,198	\$ 17,012
Charge-offs	(39)	—	(530)	(6)	(575)
Recoveries	12	—	213	—	225
Provision	(65)	(694)	1,502	37	780
June 30, 2017	<u>\$ 925</u>	<u>\$ 4,983</u>	<u>\$ 7,305</u>	<u>\$ 4,229</u>	<u>\$ 17,442</u>

June 30, 2018

Allowance for loan losses - Loans Individually Evaluated for Impairment	\$ 88	\$ 44	\$ —	\$ 53	\$ 185
Allowance for loan losses - Loans Collectively Evaluated for Impairment	856	5,794	8,337	4,468	19,455
Ending Loan Balance - Individually Evaluated for Impairment	489	813	110	1,080	2,492
Ending Loan Balance - Collectively Evaluated for Impairment	\$ 118,392	\$ 463,580	\$ 661,798	\$ 811,600	\$ 2,055,370

December 31, 2017

Allowance for loan losses - Loans Individually Evaluated for Impairment	\$ 94	\$ 2	\$ —	\$ 10	\$ 106
Allowance for loan losses - Loans Collectively Evaluated for Impairment	1,779	4,502	7,604	4,595	18,480
Ending Loan Balance - Individually Evaluated for Impairment	489	1,537	95	1,562	3,683
Ending Loan Balance - Collectively Evaluated for Impairment	\$ 128,760	\$ 442,711	\$ 602,732	\$ 772,884	\$ 1,947,087

June 30, 2017

Allowance for loan losses - Loans Individually Evaluated for Impairment	\$ 112	\$ —	\$ —	\$ 34	\$ 146
Allowance for loan losses - Loans Collectively Evaluated for Impairment	813	4,983	7,305	4,195	17,296
Ending Loan Balance - Individually Evaluated for Impairment	503	1,178	88	1,090	2,859
Ending Loan Balance - Collectively Evaluated for Impairment	\$ 125,756	\$ 440,631	\$ 578,666	\$ 730,720	\$ 1,875,773

Through the provision for loan losses, an allowance for loan losses is maintained that reflects the best estimate of the inherent risk of loss in the Company's loan portfolio as of the balance sheet date. Additions are made to the allowance for loan losses through a periodic provision for loan losses. Actual loan losses are charged against the allowance for loan losses when loans are deemed uncollectible and recoveries of amounts previously charged off are recorded as credits to the allowance for loan losses.

Loan officers and risk managers meet at least quarterly to discuss and review the conditions and risks associated with certain criticized and classified commercial-related relationships. In addition, the Company's independent internal loan review department performs periodic reviews of the credit quality indicators on individual loans in the commercial loan portfolio.

A two-step process is utilized to determine the provision for loan losses and the amount of the allowance for loan losses. The Company performs an evaluation of impaired loans on a quarterly basis. Impaired loans are generally nonaccrual loans over \$250 thousand and all troubled debt restructured loans. These impaired loans are generally considered to be collateral dependent with the specific reserve, if any, determined based on the value of the collateral less estimated costs to sell.

The remainder of the portfolio is evaluated on a pooled basis, as described below. For each homogeneous loan pool, the Company estimates a total loss factor based on the historical net loss rates adjusted for applicable qualitative factors. The total loss factors assigned to each loan category are updated on a quarterly basis. For the commercial and commercial real estate categories, the loan categories are further segregated by credit risk profile (pools of loans graded pass, special mention and accruing substandard). Additional description of the credit risk classifications is detailed in the Credit Quality Indicators section of this note.

The annualized historical net loss rate is determined for each loan category using a trailing three-year net charge-off average. While historical net loss experience provides a reasonable starting point for analysis, historical net losses, or even recent trends in net losses, do not by themselves form a sufficient basis to determine the appropriate level of the allowance for loan losses. Therefore, the Company also considers and adjusts historical net loss factors for qualitative factors that impact the inherent risk of loss associated with the loan categories within the total loan portfolio. These include:

- Changes in the volume and severity of past due, nonaccrual and adversely classified loans
- Changes in the nature and volume of the portfolio and in the terms of loans
- Changes in the value of the underlying collateral for collateral dependent loans
- Changes in lending policies and procedures, including changes in underwriting standards and collection, charge-off, and recovery practices not considered elsewhere in estimating credit losses
- Changes in the quality of the loan review system
- Changes in the experience, ability, and depth of lending management and other relevant staff
- Changes in international, national, regional, and local economic and business conditions and developments that affect the collectibility of the portfolio
- The existence and effect of any concentrations of credit, and changes in the level of such concentrations
- The effect of other external factors such as competition and legal and regulatory requirements on the level of estimated credit losses in the existing portfolio or pool

Credit Quality Indicators

The following table presents the credit quality indicators by loan category at June 30, 2018, December 31, 2017 and June 30, 2017:

	Loan Credit Quality Indicators				
	Commercial	Commercial Real Estate	Consumer	Residential	Total
<u>June 30, 2018</u>					
<u>Credit Risk Profile by Creditworthiness Category:</u>					
Satisfactory	\$ 110,911	\$ 436,670	\$ —	\$ —	\$ 547,581
Special Mention	5,948	—	—	—	5,948
Substandard	2,023	26,915	—	—	28,938
Doubtful	—	807	—	—	807
<u>Credit Risk Profile Based on Payment Activity:</u>					
Performing	\$ —	\$ —	\$ 661,449	\$ 810,855	\$ 1,472,304
Nonperforming	—	—	459	1,825	2,284
<u>December 31, 2017</u>					
<u>Credit Risk Profile by Creditworthiness Category:</u>					
Satisfactory	\$ 124,961	\$ 417,362	\$ —	\$ —	\$ 542,323
Special Mention	1,341	177	—	—	1,518
Substandard	2,947	25,902	—	—	28,849
Doubtful	—	807	—	—	807
<u>Credit Risk Profile Based on Payment Activity:</u>					
Performing	\$ —	\$ —	\$ 602,168	\$ 771,584	\$ 1,373,752
Nonperforming	—	—	659	3,068	3,727
<u>June 30, 2017</u>					
<u>Credit Risk Profile by Creditworthiness Category:</u>					
Satisfactory	\$ 120,388	\$ 412,423	\$ —	\$ —	\$ 532,811
Special Mention	1,269	1,414	—	—	2,683
Substandard	4,602	27,973	—	—	32,575
Doubtful	—	—	—	—	—
<u>Credit Risk Profile Based on Payment Activity:</u>					
Performing	\$ —	\$ —	\$ 578,317	\$ 727,733	\$ 1,306,050
Nonperforming	—	—	437	4,076	4,513

For the purposes of the table above, nonperforming consumer and residential loans are those loans on nonaccrual status or are 90 days or more past due and still accruing interest.

For the allowance calculation, we use an internally developed system of five credit quality indicators to rate the credit worthiness of each commercial loan defined as follows:

1) Satisfactory - "Satisfactory" borrowers have acceptable financial condition with satisfactory record of earnings and sufficient historical and projected cash flow to service the debt. Borrowers have satisfactory repayment histories and primary and secondary sources of repayment can be clearly identified;

2) Special Mention - Loans in this category have potential weaknesses that deserve management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the asset or in the institution's credit position at some future date. "Special mention" assets are not adversely classified and do not expose an institution to sufficient risk to warrant adverse classification. Loans which might be assigned this credit quality indicator include loans to borrowers with deteriorating financial strength and/or earnings record and loans with potential for problems due to weakening economic or market conditions;

3) Substandard - Loans classified as "substandard" are inadequately protected by the current sound net worth or paying capacity of the borrower or the collateral pledged, if any. Loans in this category have well defined weaknesses that jeopardize the repayment.

They are characterized by the distinct possibility that the bank will sustain some loss if the deficiencies are not corrected. "Substandard" loans may include loans which are likely to require liquidation of collateral to effect repayment, and other loans where character or ability to repay has become suspect. Loss potential, while existing in the aggregate amount of substandard assets, does not have to exist in individual assets classified substandard;

4) Doubtful - Loans 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 current existing facts, conditions, and values highly questionable and improbable. Although possibility of loss is extremely high, classification of these loans as "loss" has been deferred due to specific pending factors or events which may strengthen the value (i.e. possibility of additional collateral, injection of capital, collateral liquidation, debt restructure, economic recovery, etc). Loans classified as "doubtful" need to be placed on non-accrual; and

5) Loss - Loans classified as "loss" are considered uncollectible and of such little value that their continuance as bankable assets is not warranted. As of the date of the balance sheet, all loans in this category have been charged-off to the allowance for loan losses.

Commercial loans are generally evaluated on an annual basis depending on the size and complexity of the loan relationship, unless the credit related quality indicator falls to a level of "special mention" or below, when the loan is evaluated quarterly. The credit quality indicator is one of the factors used in assessing the level of inherent risk of loss in our commercial related loan portfolios.

Impaired Loans

The following table presents information on impaired loans based on whether the impaired loan has a recorded related allowance or has no recorded related allowance:

	Impaired Loans				
	Commercial	Commercial Real Estate	Consumer	Residential	Total
<u>June 30, 2018</u>					
<u>Recorded Investment:</u>					
With No Related Allowance	\$ —	\$ 7	\$ 110	\$ 784	\$ 901
With a Related Allowance	479	790	—	351	1,620
<u>Unpaid Principal Balance:</u>					
With No Related Allowance	—	7	110	797	914
With a Related Allowance	489	806	—	283	1,578
<u>December 31, 2017</u>					
<u>Recorded Investment:</u>					
With No Related Allowance	\$ —	\$ 781	\$ 94	\$ 1,269	\$ 2,144
With a Related Allowance	485	725	—	333	1,543
<u>Unpaid Principal Balance:</u>					
With No Related Allowance	—	816	95	1,274	2,185
With a Related Allowance	489	721	—	288	1,498
<u>June 30, 2017</u>					
<u>Recorded Investment:</u>					
With No Related Allowance	\$ —	\$ 1,178	\$ 88	\$ 802	\$ 2,068
With a Related Allowance	503	—	—	288	791
<u>Unpaid Principal Balance:</u>					
With No Related Allowance	—	1,178	88	802	2,068
With a Related Allowance	503	—	—	288	791
<u>For the Quarter Ended:</u>					
<u>June 30, 2018</u>					
<u>Average Recorded Balance:</u>					
With No Related Allowance	\$ —	\$ 8	\$ 100	\$ 1,030	\$ 1,138
With a Related Allowance	481	787	—	354	1,622
<u>Interest Income Recognized:</u>					
With No Related Allowance	—	—	—	—	—
With a Related Allowance	—	—	—	—	—
<u>Cash Basis Income:</u>					
With No Related Allowance	—	—	—	—	—
With a Related Allowance	—	—	—	—	—
<u>June 30, 2017</u>					
<u>Average Recorded Balance:</u>					
With No Related Allowance	\$ —	\$ 1,031	\$ 88	\$ 804	\$ 1,923
With a Related Allowance	252	—	—	288	540
<u>Interest Income Recognized:</u>					
With No Related Allowance	—	—	2	4	6
With a Related Allowance	—	—	—	—	—
<u>Cash Basis Income:</u>					
With No Related Allowance	—	—	—	—	—
With a Related Allowance	—	—	—	—	—

Impaired Loans

	Commercial				
	Commercial	Real Estate	Consumer	Residential	Total
<u>For the Year-To-Date Period Ended:</u>					
<u>June 30, 2018</u>					
<u>Average Recorded Balance:</u>					
With No Related Allowance	\$ —	\$ 394	\$ 102	\$ 1,027	\$ 1,523
With a Related Allowance	482	758	—	342	1,582
<u>Interest Income Recognized:</u>					
With No Related Allowance	—	—	—	—	—
With a Related Allowance	—	—	—	24	24
<u>Cash Basis Income:</u>					
With No Related Allowance	—	—	—	—	—
With a Related Allowance	—	—	—	—	—
<u>June 30, 2017</u>					
<u>Average Recorded Balance:</u>					
With No Related Allowance	\$ —	\$ 1,034	\$ 90	\$ 950	\$ 2,074
With a Related Allowance	252	—	—	144	396
<u>Interest Income Recognized:</u>					
With No Related Allowance	—	—	3	4	7
With a Related Allowance	—	—	—	—	—
<u>Cash Basis Income:</u>					
With No Related Allowance	—	—	—	—	—
With a Related Allowance	—	—	—	—	—

At June 30, 2018, December 31, 2017 and June 30, 2017, all impaired loans were considered to be collateral dependent and were therefore evaluated for impairment based on the fair value of collateral less estimated cost to sell. Interest income recognized in the table above, represents income earned after the loans became impaired and includes restructured loans in compliance with their modified terms and nonaccrual loans where we have recognized interest income on a cash basis.

Loans Modified in Trouble Debt Restructurings

The following table presents information on loans modified in trouble debt restructurings during the periods indicated.

	Loans Modified in Trouble Debt Restructurings During the Period				
	Commercial	Commercial Real Estate	Consumer	Residential	Total
<u>For the Quarter Ended:</u>					
<u>June 30, 2018</u>					
Number of Loans	—	—	3	—	3
Pre-Modification Outstanding Recorded Investment	\$ —	\$ —	\$ 26	\$ —	\$ 26
Post-Modification Outstanding Recorded Investment	—	—	26	—	26
Subsequent Default, Number of Contracts	—	—	—	—	—
Subsequent Default, Recorded Investment	—	—	—	—	—
<u>June 30, 2017</u>					
Number of Loans	1	—	2	—	3
Pre-Modification Outstanding Recorded Investment	\$ 503	\$ —	\$ 10	\$ —	\$ 513
Post-Modification Outstanding Recorded Investment	503	—	10	—	513
Subsequent Default, Number of Contracts	—	—	—	—	—
Subsequent Default, Recorded Investment	—	—	—	—	—
<u>For the Year-To-Date Period Ended:</u>					
<u>June 30, 2018</u>					
Number of Loans	—	—	4	—	4
Pre-Modification Outstanding Recorded Investment	\$ —	\$ —	\$ 28	\$ —	\$ 28
Post-Modification Outstanding Recorded Investment	—	—	28	—	28
Subsequent Default, Number of Contracts	—	—	—	—	—
Subsequent Default, Recorded Investment	—	—	—	—	—
<u>June 30, 2017</u>					
Number of Loans	1	—	4	—	5
Pre-Modification Outstanding Recorded Investment	\$ 503	\$ —	\$ 26	\$ —	\$ 529
Post-Modification Outstanding Recorded Investment	503	—	26	—	529
Subsequent Default, Number of Contracts	—	—	—	—	—
Subsequent Default, Recorded Investment	—	—	—	—	—

In general, loans requiring modification are restructured to accommodate the projected cash-flows of the borrower. Such modifications may involve a reduction of the interest rate, a significant deferral of payments or forgiveness of a portion of the outstanding principal balance. As indicated in the table above, no loans modified during the preceding twelve months subsequently defaulted as of June 30, 2018.

Note 4. GUARANTEES (In Thousands)

The following table presents the notional amount and fair value of Arrow's off-balance sheet commitments to extend credit and commitments under standby letters of credit as of June 30, 2018, December 31, 2017 and June 30, 2017:

Commitments to Extend Credit and Letters of Credit				
	June 30, 2018	December 31, 2017	June 30, 2017	
<u>Notional Amount:</u>				
Commitments to Extend Credit	\$ 324,173	\$ 315,256	\$ 290,818	
Standby Letters of Credit	3,941	3,526	3,373	
<u>Fair Value:</u>				
Commitments to Extend Credit	\$ —	\$ —	\$ —	
Standby Letters of Credit	11	23	25	

Arrow is party to financial instruments with off-balance sheet risk in the normal course of business to meet the financing needs of its customers. These financial instruments include commitments to extend credit and standby letters of credit. Commitments to extend credit include home equity lines of credit, commitments for residential and commercial construction loans and other personal and commercial lines of credit. These instruments involve, to varying degrees, elements of credit and interest rate risk in excess of the amount recognized in the consolidated balance sheets. The contract or notional amounts of those instruments reflect the extent of the involvement Arrow has in particular classes of financial instruments.

Arrow's exposure to credit loss in the event of nonperformance by the other party to the financial instrument for commitments to extend credit and standby letters of credit is represented by the contractual notional amount of those instruments. Arrow uses the same credit policies in making commitments and conditional obligations as it does for on-balance sheet instruments.

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since many of the commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. Arrow evaluates each customer's creditworthiness on a case-by-case basis. Home equity lines of credit are secured by residential real estate. Construction commitments are secured by underlying real estate. For other lines of credit, the amount of collateral obtained, if deemed necessary by Arrow upon extension of credit, is based on management's credit evaluation of the counterparty. Collateral held varies, but may include accounts receivable, inventory, property, plant and equipment, and income-producing commercial properties. Most of the commitments are variable rate instruments.

Arrow does not issue any guarantees that would require liability-recognition or disclosure, other than its standby letters of credit.

Arrow has issued conditional commitments in the form of standby letters of credit to guarantee payment on behalf of a customer and guarantee the performance of a customer to a third party. Standby letters of credit generally arise in connection with lending relationships. The credit risk involved in issuing these instruments is essentially the same as that involved in extending loans to customers. Contingent obligations under standby letters of credit at June 30, 2018, December 31, 2017 and June 30, 2017 represent the maximum potential future payments Arrow could be required to make. Typically, these instruments have terms of 12 months or less and expire unused; therefore, the total amounts do not necessarily represent future cash requirements. Each customer is evaluated individually for creditworthiness under the same underwriting standards used for commitments to extend credit and on-balance sheet instruments. Company policies governing loan collateral apply to standby letters of credit at the time of credit extension. Loan-to-value ratios generally range from 50% for movable assets, such as inventory, to 100% for liquid assets, such as bank CD's. Fees for standby letters of credit typically range from 1% to 3% of the notional amount. Fees are collected upfront and are amortized over the life of the commitment. The carrying amount and fair values of Arrow's standby letters of credit at June 30, 2018, December 31, 2017 and June 30, 2017, were insignificant. The fair value of standby letters of credit is based on the fees currently charged for similar agreements or the cost to terminate the arrangement with the counterparties.

The fair value of commitments to extend credit is determined by estimating the fees to enter into similar agreements, taking into account the remaining terms and present creditworthiness of the counterparties, and for fixed rate loan commitments, the difference between the current and committed interest rates. Arrow provides several types of commercial lines of credit and standby letters of credit to its commercial customers. The pricing of these services is not isolated, as Arrow considers the customer's complete deposit and borrowing relationship in pricing individual products and services. The commitments to extend credit also include commitments under home equity lines of credit, for which Arrow charges no fee. The carrying value and fair value of commitments to extend credit are not material and Arrow does not expect to incur any material loss as a result of these commitments.

In the normal course of business, Arrow and its subsidiary banks become involved in a variety of routine legal proceedings. At present, there are no legal proceedings pending or threatened, which in the opinion of management and counsel, would result in a material loss to Arrow.

Note 5. COMPREHENSIVE INCOME (In Thousands)

The following table presents the components of other comprehensive income for the three- and six-month periods ended June 30, 2018 and 2017:

Schedule of Comprehensive Income

	<u>Three Months Ended June 30,</u>			<u>Six Months Ended June 30,</u>		
	Tax			Tax		
	Before-Tax Amount	(Expense) Benefit	Net-of-Tax Amount	Before- Tax Amount	(Expense) Benefit	Net-of-Tax Amount
<u>2018</u>						
Net Unrealized Securities Holding Losses on Securities Available-for-Sale Arising During the Period	(853)	\$ 218	(635)	(4,185)	\$ 1,065	(3,120)
Amortization of Net Retirement Plan Actuarial Loss	103	(28)	75	163	(42)	121
Accretion of Net Retirement Plan Prior Service Credit	55	(14)	41	54	(14)	40
Other Comprehensive Loss	<u>\$ (695)</u>	<u>\$ 176</u>	<u>\$ (519)</u>	<u>\$ (3,968)</u>	<u>\$ 1,009</u>	<u>\$ (2,959)</u>
<u>2017</u>						
Net Unrealized Securities Holding Gains on Securities Available-for-Sale Arising During the Period	666	\$ (257)	409	743	\$ (287)	456
Amortization of Net Retirement Plan Actuarial Loss	181	(109)	72	359	(178)	181
Accretion of Net Retirement Plan Prior Service Credit	(3)	2	(1)	(6)	3	(3)
Other Comprehensive Income	<u>\$ 844</u>	<u>\$ (364)</u>	<u>\$ 480</u>	<u>\$ 1,096</u>	<u>\$ (462)</u>	<u>\$ 634</u>

The following table presents the changes in accumulated other comprehensive income by component:

Changes in Accumulated Other Comprehensive Income (Loss) by Component ⁽¹⁾

	Unrealized Gains and Losses on Available-for- Sale Securities	Defined Benefit Plan Items		
		Net Gain (Loss)	Net Prior Service (Cost) Credit	Total
<u>For the Quarter-To-Date periods ended:</u>				
March 31, 2018	\$ (4,066)	\$ (6,334)	\$ (885)	\$ (11,285)
Other comprehensive income or loss before reclassifications	(635)	—	—	(635)
Amounts reclassified from accumulated other comprehensive income		75	41	116
Net current-period other comprehensive income (loss)	(635)	75	41	(519)
June 30, 2018	<u>\$ (4,701)</u>	<u>\$ (6,259)</u>	<u>\$ (844)</u>	<u>\$ (11,804)</u>
March 31, 2017	\$ (335)	\$ (5,628)	\$ (717)	\$ (6,680)
Other comprehensive income or loss before reclassifications	409	—	—	409
Amounts reclassified from accumulated other comprehensive income	—	72	(1)	71
Net current-period other comprehensive income (loss)	409	72	(1)	480
June 30, 2017	<u>\$ 74</u>	<u>\$ (5,556)</u>	<u>\$ (718)</u>	<u>\$ (6,200)</u>
<u>For the Year-To-Date periods ended:</u>				
December 31, 2017	\$ (1,250)	\$ (6,380)	\$ (884)	\$ (8,514)
Other comprehensive income or loss before reclassifications	(3,120)	—	—	(3,120)
Amounts reclassified from accumulated other comprehensive income	—	121	40	161
Net current-period other comprehensive income	(3,120)	121	40	(2,959)
Amounts reclassified from accumulated other comprehensive income	\$ (331)			\$ (331)
June 30, 2018	<u>\$ (4,701)</u>	<u>\$ (6,259)</u>	<u>\$ (844)</u>	<u>\$ (11,804)</u>
December 31, 2016	\$ (382)	\$ (5,737)	\$ (715)	\$ (6,834)
Other comprehensive income or loss before reclassifications	456	—	—	456
Amounts reclassified from accumulated other comprehensive income	—	181	(3)	178
Net current-period other comprehensive income	456	181	(3)	634
June 30, 2017	<u>\$ 74</u>	<u>\$ (5,556)</u>	<u>\$ (718)</u>	<u>\$ (6,200)</u>

(1) All amounts are net of tax.

The following table presents the reclassifications out of accumulated other comprehensive income:

Reclassifications Out of Accumulated Other Comprehensive Income

Details about Accumulated Other Comprehensive Income (Loss) Components	Amounts Reclassified from Accumulated Other Comprehensive Income	Affected Line Item in the Statement Where Net Income Is Presented
<u>For the Quarter-to-date periods ended:</u>		
<u>June 30, 2018</u>		
Unrealized gains and losses on available-for-sale securities	\$ —	Gain on Securities Transactions
	—	Total before Tax
	—	Provision for Income Taxes
	<u>\$ —</u>	Net of Tax
Amortization of defined benefit pension items:		
Prior-service costs	\$ (55) ⁽¹⁾	Salaries and Employee Benefits
Actuarial gains/(losses)	<u>(103) ⁽¹⁾</u>	Salaries and Employee Benefits
	(158)	Total before Tax
	42	Provision for Income Taxes
	<u>\$ (116)</u>	Net of Tax
Total reclassifications for the period	<u>\$ (116)</u>	Net of Tax
<u>June 30, 2017</u>		
Unrealized gains and losses on available-for-sale securities	\$ —	Gain on Securities Transactions
	—	Total before Tax
	—	Provision for Income Taxes
	<u>\$ —</u>	Net of Tax
Amortization of defined benefit pension items:		
Prior-service costs	\$ 3 ⁽¹⁾	Salaries and Employee Benefits
Actuarial gains/(losses)	<u>(181) ⁽¹⁾</u>	Salaries and Employee Benefits
	(178)	Total before Tax
	107	Provision for Income Taxes
	<u>\$ (71)</u>	Net of Tax
Total reclassifications for the period	<u>\$ (71)</u>	Net of Tax
<u>For the Year-to-date periods ended:</u>		
<u>June 30, 2018</u>		
Unrealized gains and losses on available-for-sale securities	\$ —	Gain on Securities Transactions
	—	Total before Tax
	—	Provision for Income Taxes
	<u>\$ —</u>	Net of Tax
Amortization of defined benefit pension items:		
Prior-service costs	\$ (54) ⁽²⁾	Salaries and Employee Benefits
Actuarial gains/(losses)	<u>(163) ⁽²⁾</u>	Salaries and Employee Benefits
	(217)	Total before Tax
	56	Provision for Income Taxes
	<u>\$ (161)</u>	Net of Tax

Reclassifications Out of Accumulated Other Comprehensive Income

Details about Accumulated Other Comprehensive Income (Loss) Components	Amounts Reclassified from Accumulated Other Comprehensive Income	Affected Line Item in the Statement Where Net Income Is Presented
Total reclassifications for the period	\$ <u><u>(161)</u></u>	Net of Tax
<u>June 30, 2017</u>		
Unrealized gains and losses on available-for-sale securities	\$ —	Gain on Securities Transactions
	—	Total before Tax
	—	Provision for Income Taxes
	\$ <u><u>—</u></u>	Net of Tax
Amortization of defined benefit pension items:		
Prior-service costs	6 ⁽²⁾	Salaries and Employee Benefits
Actuarial gains/(losses)	\$ <u><u>(359)</u></u> ⁽²⁾	Salaries and Employee Benefits
	(353)	Total before Tax
	175	Provision for Income Taxes
	\$ <u><u>(178)</u></u>	Net of Tax
Total reclassifications for the period	\$ <u><u>(178)</u></u>	Net of Tax

(1) These accumulated other comprehensive income components are included in the computation of net periodic pension cost.

Note 6. STOCK-BASED COMPENSATION (Dollars In Thousands, Except Share and Per Share Amounts)

Arrow has established three stock-based compensation plans: an Incentive and Non-qualified Stock Option Plan (Long Term Incentive Plan), an Employee Stock Purchase Plan (ESPP) and an Employee Stock Ownership Plan (ESOP). All share and per share data have been adjusted for the September 28, 2017 3% stock dividend.

Long Term Incentive Plan

The Long Term Incentive Plan provides for the grant of incentive stock options, non-qualified stock options, restricted stock, restricted stock units, performance units and performance shares. The Compensation Committee of the Board of Directors administers the Long Term Incentive Plan.

Stock Options - Options may be granted at a price no less than the greater of the par value or fair market value of such shares on the date on which such option is granted, and generally expire ten years from the date of grant. The options usually vest over a four-year period.

The following table presents the roll forward of stock options issued pursuant to the Long Term Incentive Plan by Shares and Weighted Average Exercise Prices.

Roll-Forward of Shares Outstanding:

Outstanding at January 1, 2018	346,155
Granted	55,188
Exercised	(79,001)
Forfeited	(6,321)
Outstanding at June 30, 2018	<u>316,021</u>
Exercisable at Period-End	198,544
Vested and Expected to Vest	117,477

Roll-Forward of Shares Outstanding - Weighted Average Exercise Price:

Outstanding at January 1, 2018	\$	24.12
Granted		30.85
Exercised		21.41
Forfeited		29.94
Outstanding at June 30, 2018		25.85
Exercisable at Period-End		23.06
Vested and Expected to Vest		30.55

Schedule of Other Long Term Incentive Plan InformationGrants Issued During 2018 - Weighted Average Information:

Fair Value	\$	5.76
<u>Fair Value Assumptions:</u>		
Dividend Yield		2.98%
Expected Volatility		21.55%
Risk Free Interest Rate		2.68%
Expected Lives (in years)		6.98

Restricted Stock Units - The Company grants restricted stock units which gives the recipient the right to receive shares of Company stock upon vesting. The fair value of each restricted stock unit is the market value of Company stock on the date of grant. 100% of the restricted stock unit awards vest three years from the grant date. Once vested, the restricted stock units become vested units. Unvested restricted stock unit awards will generally be forfeited if the recipient ceases to be employed by the Company, with limited exceptions.

The following table presents the roll forward of restricted stock units by units and weighted average grant-date fair value.

<u>Roll-Forward of Restricted Stock Units</u>	
Non-vested at January 1, 2018	—
Granted	3,279
Vested	—
Canceled	—
Non-vested at June 30, 2018	<u><u>3,279</u></u>
<u>Roll-Forward of Non-vested Restricted Stock Units - Weighted Average Fair Value:</u>	
Non-vested at January 1, 2018	\$ —
Granted	33.55
Vested	—
Canceled	—
Non-vested at June 30, 2018	33.55

The following table presents information on the amounts expensed for the periods ended June 30, 2018 and 2017:

	Share-Based Compensation Expense			
	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2018	2017	2018	2017
Share-Based Compensation Expense	\$ 89	\$ 89	\$ 178	\$ 172

Employee Stock Purchase Plan

Arrow sponsors an ESPP under which employees purchase Arrow's common stock at a 5% discount below market price. Under current accounting guidance, a stock purchase plan with a discount of 5% or less is not considered a compensatory plan.

Employee Stock Ownership Plan

Arrow maintains an ESOP. Substantially all employees of Arrow and its subsidiaries are eligible to participate upon satisfaction of applicable service requirements. The ESOP borrowed funds from one of Arrow's subsidiary banks to purchase outstanding shares of Arrow's common stock. The notes require annual payments of principal and interest through 2018. As the debt is repaid, shares are released from collateral based on the proportion of debt paid to total debt outstanding for the year and allocated to active employees. In addition, the Company makes additional cash contributions to the Plan each year.

Shares pledged as collateral are reported as unallocated ESOP shares in stockholders' equity. As shares are released from collateral, Arrow reports compensation expense equal to the current average market price of the shares, and the shares become outstanding for earnings per share computations.

Note 7. RETIREMENT PLANS (Dollars in Thousands)

Arrow sponsors qualified and nonqualified defined benefit pension plans and other postretirement benefit plans for its employees. Arrow maintains a non-contributory pension plan, which covers substantially all employees. Effective December 1, 2002, all active participants in the qualified defined benefit pension plan were given a one-time irrevocable election to continue participating in the traditional plan design, for which benefits were based on years of service and the participant's final compensation (as defined), or to begin participating in the new cash balance plan design. All employees who participate in the plan after December 1, 2002 automatically participate in the cash balance plan design. The interest credits under the cash balance plan are based on the 30-year U.S. Treasury rate in effect for November of the prior year. The service credits under the cash balance plan are equal to 6.0% of eligible salaries for employees who become participants on or after January 1, 2003. For employees in the plan prior to January 1, 2003, the service credits are scaled based on the age of the participant, and range from 6.0% to 12.0%. The funding policy is to contribute up to the maximum amount that can be deducted for federal income tax purposes and to make all payments required under ERISA. Arrow also maintains a supplemental non-qualified unfunded retirement plan to provide eligible employees of Arrow and its subsidiaries with benefits in excess of qualified plan limits imposed by federal tax law.

Arrow has multiple non-pension postretirement benefit plans. The health care, dental and life insurance plans are contributory, with participants' contributions adjusted annually. Arrow's policy is to fund the cost of postretirement benefits based on the current cost of the underlying policies. However, the health care plan provision for automatic increases of Company contributions each year is based on the increase in inflation and is limited to a maximum of 5%.

As of December 31, 2017, Arrow utilized the mortality assumption from the RP-2014 Mortality Table for annuitants and non-annuitants but updated the projected generational mortality improvements by using Scale MP-2017. The revised assumption resulted in a decrease in the Company's pension and postretirement liabilities.

The following tables provide the components of net periodic benefit costs for the three and six-month periods ended June 30, 2018 and 2017.

	Employees' Pension Plan	Select Executive Retirement Plan	Postretirement Benefit Plans
Net Periodic Benefit Cost			
<u>For the Three Months Ended June 30, 2018:</u>			
Service Cost ¹	\$ 431	\$ 196	\$ 35
Interest Cost ²	274	54	68
Expected Return on Plan Assets ²	(896)	—	—
Amortization of Prior Service (Credit) Cost ²	(13)	15	53
Amortization of Net Loss ²	64	33	6
Net Periodic (Benefit) Cost	<u>\$ (140)</u>	<u>\$ 298</u>	<u>\$ 162</u>
Plan Contributions During the Period	\$ —	\$ 117	\$ 102
<u>For the Three Months Ended June 30, 2017:</u>			
Service Cost ¹	\$ 350	\$ 10	\$ 37
Interest Cost ²	373	59	63
Expected Return on Plan Assets ²	(800)	—	—
Amortization of Prior Service (Credit) Cost ²	(14)	14	(3)
Amortization of Net Loss ²	148	33	—
Net Periodic (Benefit) Cost	<u>\$ 57</u>	<u>\$ 116</u>	<u>\$ 97</u>
Plan Contributions During the Period	\$ —	\$ 116	\$ 177
Net Periodic Benefit Cost			
<u>For the Six Months Ended June 30, 2018:</u>			
Service Cost ¹	\$ 779	\$ 207	\$ 68
Interest Cost ²	799	104	167
Expected Return on Plan Assets ²	(1,681)	—	—
Amortization of Prior Service (Credit) Cost ²	(25)	29	50
Amortization of Net Loss ²	97	66	—
Net Periodic (Benefit) Cost	<u>\$ (31)</u>	<u>\$ 406</u>	<u>\$ 285</u>
Plan Contributions During the Period	\$ —	\$ 233	\$ 119
Estimated Future Contributions in the Current Fiscal Year	\$ —	\$ —	\$ —

For the Six Months Ended June 30, 2017:

Service Cost ¹	\$	700	\$	20	\$	74
Interest Cost ²		723		109		149
Expected Return on Plan Assets ²		(1,600)		—		—
Amortization of Prior Service (Credit) Cost ²		(28)		28		(6)
Amortization of Net Loss ²		296		63		—
Net Periodic (Benefit) Cost	\$	<u>91</u>	\$	<u>220</u>	\$	<u>217</u>
Plan Contributions During the Period	\$	—	\$	229	\$	230

Footnotes:

1. Included in Salaries and Employee Benefits on the Consolidated Statements of Income
2. Included in Other Operating Expense on the Consolidated Statements of Income

We are not required to make a contribution to the qualified pension plan in 2018, and currently, we do not expect to make additional contributions in 2018. Arrow makes contributions to its other post-retirement benefit plans in an amount equal to benefit payments for the year.

Note 8. EARNINGS PER COMMON SHARE (In Thousands, Except Per Share Amounts)

The following table presents a reconciliation of the numerator and denominator used in the calculation of basic and diluted earnings per common share ("EPS") for periods ended June 30, 2018 and 2017. All share and per share amounts have been adjusted for the September 28, 2017 3% stock dividend.

Earnings Per Share

	Quarterly Period Ended:		Year-to-Date Period Ended:	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
<u>Earnings Per Share - Basic:</u>				
Net Income	\$ 9,730	\$ 7,208	\$ 18,261	\$ 13,839
Weighted Average Shares - Basic	13,975	13,890	13,955	13,889
Earnings Per Share - Basic	\$ 0.70	\$ 0.52	\$ 1.31	\$ 1.00
<u>Earnings Per Share - Diluted:</u>				
Net Income	\$ 9,730	\$ 7,208	\$ 18,261	\$ 13,839
Weighted Average Shares - Basic	13,975	13,890	13,955	13,889
Dilutive Average Shares Attributable to Stock Options	83	85	83	100
Weighted Average Shares - Diluted	<u>14,058</u>	<u>13,975</u>	<u>14,038</u>	<u>13,989</u>
Earnings Per Share - Diluted	\$ 0.69	\$ 0.52	\$ 1.30	\$ 0.99

Note 9. FAIR VALUE OF FINANCIAL INSTRUMENTS (In Thousands)

FASB ASC Subtopic 820-10 defines fair value, establishes a framework for measuring fair value in GAAP and requires certain disclosures about fair value measurements. We do not have any nonfinancial assets or liabilities measured at fair value on a recurring basis. The only assets or liabilities that Arrow measured at fair value on a recurring basis at June 30, 2018 were securities available-for-sale and equity securities and for December 31, 2017 and June 30, 2017 securities available-for-sale. Arrow held no securities or liabilities for trading on such dates.

The table below presents the financial instrument's fair value and the amounts within the fair value hierarchy based on the lowest level of input that is significant to the fair value measurement:

Fair Value of Assets and Liabilities Measured on a Recurring and Nonrecurring Basis

	Fair Value Measurements at Reporting Date Using:				
	Fair Value	Quoted Prices In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Life-to- Date Gains (Losses)
<u>Fair Value of Assets and Liabilities Measured on a Recurring Basis:</u>					
<u>June 30, 2018</u>					
Securities Available-for Sale:					
U.S. Government & Agency Obligations	\$ 59,615	\$ 59,615	\$ —	\$ —	
State and Municipal Obligations	3,383	—	3,383	—	
Mortgage-Backed Securities	261,589	—	261,589	—	
Corporate and Other Debt Securities	800	—	800	—	
Total Securities Available-for-Sale	<u>325,387</u>	<u>59,615</u>	<u>265,772</u>	<u>—</u>	
Equity Securities	1,802	—	1,802	—	
Total Securities Measured on a Recurring Basis	<u>\$ 327,189</u>	<u>\$ 59,615</u>	<u>\$ 267,574</u>	<u>\$ —</u>	
<u>December 31, 2017</u>					
Securities Available-for Sale:					
U.S. Government & Agency Obligations	\$ 59,894	\$ 59,894	\$ —	\$ —	
State and Municipal Obligations	10,349	—	10,349	—	
Mortgage-Backed Securities	227,596	—	227,596	—	
Corporate and Other Debt Securities	800	—	800	—	
Equity Securities	1,561	—	1,561	—	
Total Securities Available-for Sale	<u>\$ 300,200</u>	<u>\$ 59,894</u>	<u>\$ 240,306</u>	<u>\$ —</u>	
<u>June 30, 2017</u>					
Securities Available-for Sale:					
U.S. Government & Agency Obligations	\$ 147,085	\$ 54,676	\$ 92,409	\$ —	
State and Municipal Obligations	15,441	—	15,441	—	
Mortgage-Backed Securities	161,077	—	161,077	—	
Corporate and Other Debt Securities	2,299	—	2,299	—	
Equity Securities	1,490	—	1,490	—	
Total Securities Available-for Sale	<u>\$ 327,392</u>	<u>\$ 54,676</u>	<u>\$ 272,716</u>	<u>\$ —</u>	
<u>Fair Value of Assets and Liabilities Measured on a Nonrecurring Basis:</u>					
<u>June 30, 2018</u>					
Collateral Dependent Impaired Loans	\$ 747	\$ —	\$ —	\$ 747	\$ (58)
Other Real Estate Owned and Repossessed Assets, Net	1,487	—	—	1,487	(654)
<u>December 31, 2017</u>					
Collateral Dependent Impaired Loans	\$ —	\$ —	\$ —	\$ —	\$ —
Other Real Estate Owned and Repossessed Assets, Net	\$ 1,847	\$ —	—	1,847	\$ (569)
<u>June 30, 2017</u>					
Collateral Dependent Impaired Loans	\$ 791	\$ —	\$ —	\$ 791	\$ (146)
Other Real Estate Owned and Repossessed Assets, Net	1,613	—	—	1,613	(584)

We determine the fair value of financial instruments under the following hierarchy:

- Level 1 - Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;
- Level 2 - 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, or inputs that are observable, either directly or indirectly, for substantially the full term of the asset or liability;
- Level 3 - Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported by little or no market activity).

There were no transfers between Levels 1, 2 and 3 for the three months ended June 30, 2018, December 31, 2017 and June 30, 2017.

Fair Value Methodology for Assets and Liabilities Measured on a Recurring Basis

The fair value of Level 1 securities available-for-sale are based on unadjusted, quoted market prices from exchanges in active markets. The fair value of Level 2 securities available-for-sale are based on an independent bond and equity pricing service for identical assets or significantly similar securities and an independent equity pricing service for equity securities not actively traded. The pricing services use a variety of techniques to arrive at fair value including market maker bids, quotes and pricing models. Inputs to the pricing models include recent trades, benchmark interest rates, spreads and actual and projected cash flows.

Fair Value Methodology for Assets and Liabilities Measured on a Nonrecurring Basis

The fair value of collateral dependent impaired loans and other real estate owned was based on third-party appraisals less estimated cost to sell. The appraisals may be adjusted by management for qualitative factors such as economic conditions and estimated liquidation expenses. Other assets which might have been included in this table include mortgage servicing rights, goodwill and other intangible assets. Arrow evaluates each of these assets for impairment on an annual basis, with no impairment recognized for these assets at June 30, 2018, December 31, 2017 and June 30, 2017.

Fair Value Methodology for Financial Instruments Not Measured on a Recurring or Nonrecurring Basis

The fair value for securities held-to-maturity is determined utilizing an independent bond pricing service for identical assets or significantly similar securities. The pricing service uses a variety of techniques to arrive at fair value including market maker bids, quotes and pricing models. Inputs to the pricing models include recent trades, benchmark interest rates, spreads and actual and projected cash flows.

ASU 2016-01 "Recognition and Measurement of Financial Assets and Financial Liabilities" requires that, effective for the first quarter of 2018, the fair value for loans must be disclosed using the "exit price" notion which is a reasonable estimate of what another party might pay in an orderly transaction. Fair values for loans are calculated for portfolios of loans with similar financial characteristics. Loans are segregated by type such as commercial, commercial real estate, residential mortgage, indirect auto and other consumer loans. Each loan category is further segmented into fixed and adjustable interest rate terms and by performing and nonperforming categories. The fair value of performing loans is calculated by determining the estimated future cash flow, which is the contractual cash flow adjusted for estimated prepayments. The discount rate is determined by starting with current market yields, and first adjusting for a liquidity premium. This premium is separately determined for residential real estate loans vs. other loans. Then a credit loss component is determined utilizing the credit loss assumptions used in the allowance for loan and lease loss model. Finally, a discount spread is applied separately for consumer loans vs. commercial loans based on market information and utilization of the Swap Curve. Fair value for nonperforming loans is generally based on recent external appraisals. If appraisals are not available, estimated cash flows are discounted using a rate commensurate with the risk associated with the estimated cash flows. Assumptions regarding credit risk, cash flows and discount rates are judgmentally determined using available market information and specific borrower information.

The fair value of time deposits is based on the discounted value of contractual cash flows, except that the fair value is limited to the extent that the customer could redeem the certificate after imposition of a premature withdrawal penalty. The discount rates are estimated using the Federal Home Loan Bank of New York ("FHLBNY") yield curve, which is considered representative of Arrow's time deposit rates. The fair value of all other deposits is equal to the carrying value.

The fair value of FHLBNY advances is estimated based on the discounted value of contractual cash flows. The discount rate is estimated using current rates on FHLBNY advances with similar maturities and call features.

The book value of the outstanding trust preferred securities (Junior Subordinated Obligations Issued to Unconsolidated Subsidiary Trusts) are considered to approximate fair value since the interest rates are variable (indexed to LIBOR) and Arrow is well-capitalized.

Fair Value by Balance Sheet Grouping

The following table presents a summary of the carrying amount, the fair value or an amount approximating fair value and the fair value hierarchy of Arrow's financial instruments:

Schedule of Fair Values by Balance Sheet Grouping

	Book Value	Fair Value	Fair Value Hierarchy		
			Level 1	Level 2	Level 3
<u>June 30, 2018</u>					
Cash and Cash Equivalents	\$ 60,741	\$ 60,741	\$ 60,741	\$ —	\$ —
Securities Available-for-Sale	325,387	325,387	59,615	265,772	—
Securities Held-to-Maturity	297,885	292,605	—	292,605	—
Equity Securities	1,802	1,802	—	1,802	—
Federal Home Loan Bank and Federal Reserve Bank Stock	11,089	11,089	—	11,089	—
Net Loans	2,038,222	1,971,756	—	—	1,971,756
Accrued Interest Receivable	6,729	6,729	—	6,729	—
Deposits	2,304,781	2,295,796	—	2,295,796	—
Federal Funds Purchased and Securities Sold Under Agreements to Repurchase	60,248	60,248	—	60,248	—
Federal Home Loan Bank Overnight Advances	136,000	136,000	—	136,000	—
Federal Home Loan Bank Term Advances	45,000	44,495	—	44,495	—
Junior Subordinated Obligations Issued to Unconsolidated Subsidiary Trusts	20,000	20,000	—	20,000	—
Accrued Interest Payable	540	540	—	540	—
<u>December 31, 2017</u>					
Cash and Cash Equivalents	\$ 72,838	\$ 72,838	\$ 72,838	\$ —	\$ —
Securities Available-for-Sale	300,200	300,200	59,894	240,306	—
Securities Held-to-Maturity	335,907	335,901	—	335,901	—
Federal Home Loan Bank and Federal Reserve Bank Stock	9,949	9,949	—	9,949	—
Net Loans	1,932,184	1,901,046	—	—	1,901,046
Accrued Interest Receivable	6,753	6,753	—	6,753	—
Deposits	2,245,116	2,236,548	—	2,236,548	—
Federal Funds Purchased and Securities Sold Under Agreements to Repurchase	64,966	64,966	—	64,966	—
Federal Home Loan Bank Overnight Advances	105,000	105,000	—	105,000	—
Federal Home Loan Bank Term Advances	55,000	54,781	—	54,781	—
Junior Subordinated Obligations Issued to Unconsolidated Subsidiary Trusts	20,000	20,000	—	20,000	—
Accrued Interest Payable	410	410	—	410	—
<u>June 30, 2017</u>					
Cash and Cash Equivalents	\$ 66,077	\$ 66,077	\$ 66,077	\$ —	\$ —
Securities Available-for-Sale	327,392	327,392	54,676	272,716	—
Securities Held-to-Maturity	348,018	350,355	—	350,355	—
Federal Home Loan Bank and Federal Reserve Bank Stock	11,035	11,035	—	11,035	—
Net Loans	1,861,190	1,844,301	—	—	1,844,301
Accrued Interest Receivable	6,563	6,563	—	6,563	—
Deposits	2,220,038	2,212,256	—	2,212,256	—
Federal Funds Purchased and Securities Sold Under Agreements to Repurchase	40,892	40,892	—	40,892	—
Federal Home Loan Bank Overnight Advances	122,000	122,000	—	122,000	—
Federal Home Loan Bank Term Advances	55,000	55,448	—	55,448	—
Junior Subordinated Obligations Issued to Unconsolidated Subsidiary Trusts	20,000	20,000	—	20,000	—
Accrued Interest Payable	252	252	—	252	—

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors

Arrow Financial Corporation:

Results of Review of Interim Financial Information

We have reviewed the consolidated balance sheet of Arrow Financial Corporation and subsidiaries (the Company) as of June 30, 2018 and 2017, the related consolidated statements of income and comprehensive income for the three-month and six-month periods ended June 30, 2018 and 2017, and the related consolidated statements of changes in stockholders' equity and cash flows for the six-month periods ended June 30, 2018 and 2017, and the related notes (collectively, the consolidated interim financial information). Based on our reviews, we are not aware of any material modifications that should be made to the consolidated interim financial information for it to be in conformity with U.S. generally accepted accounting principles.

We have previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheet of the Company as of December 31, 2017, and the related consolidated statements of income, comprehensive income, changes in stockholders' equity, and cash flows for the year then ended (not presented herein); and in our report dated March 12, 2018, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated balance sheet as of December 31, 2017, is fairly stated, in all material respects, in relation to the consolidated balance sheet from which it has been derived.

Basis for Review Results

This consolidated interim financial information is the responsibility of the Company's management. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our reviews in accordance with the standards of the PCAOB. A review of consolidated interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the PCAOB, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

/s/ KPMG LLP

Albany, New York

August 8, 2018

Item 2.

**ARROW FINANCIAL CORPORATION AND SUBSIDIARIES
MANAGEMENT'S DISCUSSION AND ANALYSIS OF
FINANCIAL CONDITION AND RESULTS OF OPERATIONS
June 30, 2018**

Note on Terminology - In this Quarterly Report on Form 10-Q, the terms "Arrow," "the registrant," "the company," "we," "us," and "our" generally refer to Arrow Financial Corporation and its subsidiaries as a group, except where the context indicates otherwise. At certain points in this Form 10-Q, our performance is compared with that of our "peer group" of financial institutions. Unless otherwise specifically stated, the peer group for the purposes of this Form 10-Q is comprised of the group of 334 domestic bank holding companies with \$1 to \$3 billion in total consolidated assets as identified in the Federal Reserve Board's "Bank Holding Company Performance Report" for March 31, 2018 (the most recent such Report currently available), and peer group data contained herein has been derived from such Report.

The Company and Its Subsidiaries - Arrow is a two-bank holding company headquartered in Glens Falls, New York. Our banking subsidiaries are Glens Falls National Bank and Trust Company (Glens Falls National) whose main office is located in Glens Falls, New York, and Saratoga National Bank and Trust Company (Saratoga National) whose main office is located in Saratoga Springs, New York. Our non-bank subsidiaries include Upstate Agency, LLC (an insurance agency specializing in property insurance, casualty insurance and selling and servicing group health care policies); North Country Investment Advisers, Inc. (a registered investment adviser that provides investment advice to our proprietary mutual funds); Glens Falls National Community Development Corporation (which invests in qualifying community development projects); and Arrow Properties, Inc. (a real estate investment trust, or REIT). Our holding company also owns directly two subsidiary business trusts, organized in 2003 and 2004 to issue trust preferred securities (TRUPs), which are still outstanding.

Forward Looking Statements - This Quarterly Report on Form 10-Q contains statements that are not historical in nature but rather are based on our beliefs, assumptions, expectations, estimates and projections about the future. These statements are "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and involve a degree of uncertainty and attendant risk. Words such as "may," "will," "expect," "believe," "anticipate," "estimate," "continue," and variations of such words and similar expressions are intended to identify such forward-looking statements. Examples of forward-looking statements include statements regarding the Company's asset quality, the level of allowance for loan losses, the sufficiency of liquidity sources, interest rate change exposure, changes in accounting standards, and the Company's tax plans and strategies. Some of these statements, such as those included in the interest rate sensitivity analysis in Part I, Item 3, entitled "Quantitative and Qualitative Disclosures About Market Risk," are merely presentations of what future performance or changes in future performance would look like based on hypothetical assumptions and on simulation models. Other forward-looking statements are based on our general perceptions of market conditions and trends in business activity, both our own and in the banking industry generally, as well as current management strategies for future operations and development.

These forward-looking statements may not be exhaustive, are not guarantees of future performance and involve certain risks and uncertainties that are difficult to quantify or, in some cases, to identify. You should not place undue reliance on any such forward-looking statements. In the case of all forward-looking statements, actual outcomes and results may differ materially from what the statements predict or forecast. Factors that could cause or contribute to such differences include, but are not limited to:

- a. rapid and dramatic changes in economic and market conditions
- b. sharp fluctuations in interest rates, economic activity, or consumer spending patterns;
- c. sudden changes in the market for products we provide, such as real estate loans;
- d. significant changes in banking or other laws and regulations, including both enactment of new legal or regulatory measures (e.g., the Economic Growth, Regulatory Relief, and Consumer Protection Act ("EGRRCPA"), the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank") and the Tax Cuts and Jobs Act of 2017 (the "Tax Act")) or the modification or elimination of pre-existing measures;
- e. significant changes in U.S. monetary or fiscal policy, including new or revised monetary programs or targets adopted or announced by the Federal Reserve ("monetary tightening or easing") or significant new federal legislation materially affecting the federal budget ("fiscal tightening or expansion");
- f. competition from other sources (e.g., so-called Fintech enterprises);
- g. similar uncertainties inherent in banking operations or business generally, including technological developments and changes; and
- h. other risks detailed from time to time within our filings with the Securities and Exchange Commission ("SEC").

Readers are cautioned not to place undue reliance on forward-looking statements in this Report, which speak only as of the date hereof. We undertake no general obligation to revise or update the forward-looking statements contained in this Report to reflect the occurrence of unanticipated events at any point in the future. This Quarterly Report should be read in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2017 and our other filings with the SEC.

USE OF NON-GAAP FINANCIAL MEASURES

The SEC has adopted Regulation G, which applies to all public disclosures, including earnings releases, made by registered companies that contain "non-GAAP financial measures." GAAP is generally accepted accounting principles in the United States of America. Under Regulation G, companies making public disclosures containing non-GAAP financial measures must also disclose, along with each non-GAAP financial measure, certain additional information, including a reconciliation of the non-GAAP financial measure to the closest comparable GAAP financial measure and a statement of the Company's reasons for utilizing the non-GAAP financial measure as part of its financial disclosures. The SEC has exempted from the definition of "non-GAAP financial measures" certain commonly used financial measures that are not based on GAAP. When these exempted measures are included in public disclosures, supplemental information is not required. The following measures used in this Report, which are commonly utilized by financial institutions, have not been specifically exempted by the SEC and may constitute "non-GAAP financial measures" within the meaning of the SEC's rules, although we are unable to state with certainty that the SEC would so regard them.

Tax-Equivalent Net Interest Income and Net Interest Margin: Net interest income, as a component of the tabular presentation by financial institutions of Selected Financial Information regarding their recently completed operations, as well as disclosures based on that tabular presentation, is commonly presented on a tax-equivalent basis. That is, to the extent that some component of the institution's net interest income, which is presented on a before-tax basis, is exempt from taxation (e.g., is received by the institution as a result of its holdings of state or municipal obligations), an amount equal to the tax benefit derived from that component is added to the actual before-tax net interest income total. Historically, this adjustment has been considered helpful in comparing the financial institution's net interest income (before tax) to that of another institution or in analyzing the institution's net interest income trend line over time, to correct any analytical distortion that might otherwise arise from the fact that financial institutions vary widely in the proportions of their portfolios that are invested in tax-exempt securities, or from the fact that even a single institution may significantly alter over time the proportion of its own portfolio that is invested in tax-exempt obligations. Moreover, net interest income is itself a component of a second financial measure commonly used by financial institutions, net interest margin, which is the ratio of net interest income (before tax) to average earning assets. For purposes of this measure as well, tax-equivalent net interest income is generally used by financial institutions, again to provide a better basis of comparison from institution to institution and/or to better demonstrate a single institution's performance over time. Arrow follows these practices. As a result of the reduced federal corporate tax rates enacted by the Tax Act, tax-equivalent net interest income and the resulting net interest margin on a tax-equivalent basis have become less comparable to prior period levels when analyzing a financial institution's performance over time. While Arrow continues to calculate, publish, and monitor these tax-equivalent financial performance measures, all users of this information should be aware of the non-comparative nature of post-Tax Act period results. Arrow presents net interest income and net interest margin on a GAAP basis in the relative sections of this Report in order to provide a consistently comparable performance measure over time as these measures are not effected by federal income tax rates.

The Efficiency Ratio: Financial institutions often use an "efficiency ratio" as a measure of expense control. The efficiency ratio typically is defined as the ratio of noninterest expense to net interest income and noninterest income. Net interest income as utilized in calculating the efficiency ratio is typically the same as the net interest income presented in Selected Financial Information table discussed in the preceding paragraph, i.e., it is expressed on a tax-equivalent basis. Moreover, many financial institutions, in calculating the efficiency ratio, also adjust both noninterest expense and noninterest income to exclude from these items (as calculated under GAAP) certain recurring component elements of income and expense, such as intangible asset amortization (which is included in noninterest expense under GAAP but may be excluded therefrom for purposes of calculating the efficiency ratio) and securities gains or losses (which are reflected in the calculation of noninterest income under GAAP but may be excluded therefrom for purposes of calculating the efficiency ratio). We make these adjustments.

Tangible Book Value per Share: Tangible equity is total stockholders' equity less intangible assets. Tangible book value per share is tangible equity divided by total shares issued and outstanding. Tangible book value per share is often regarded as a more meaningful comparative ratio than book value per share as calculated under GAAP, that is, total stockholders' equity including intangible assets divided by total shares issued and outstanding. Intangible assets includes many items, but in our case, essentially represents goodwill.

Adjustments for Certain Items of Income or Expense: In addition to our regular utilization in our public filings and disclosures of the various non-GAAP measures commonly utilized by financial institutions discussed above, we also may elect from time to time, in connection with our presentation of various financial measures prepared in accordance with GAAP, such as net income, earnings per share (i.e. EPS), return on average assets (i.e. ROA), and return on average equity (i.e. ROE), to provide as well certain comparative disclosures that adjust these GAAP financial measures, typically by removing therefrom the impact of certain transactions or other material items of income or expense that are unusual or unlikely to be repeated. We do so only if we believe that provision of the resulting non-GAAP financial measures may improve the average investor's understanding of our results of operations by separating out items that have a disproportional positive or negative impact on the particular period in question or by otherwise permitting a better comparison from period-to-period in our results of operations with respect to our fundamental lines of business, including the commercial banking business.

We believe that the non-GAAP financial measures disclosed by us from time-to-time are useful in evaluating our performance and that such information should be considered as supplemental in nature, and not as a substitute for or superior to, the related financial information prepared in accordance with GAAP. Our non-GAAP financial measures may differ from similar measures presented by other companies.

Arrow Financial Corporation
Selected Quarterly Information

(Dollars In Thousands, Except Per Share Amounts - Unaudited)

Quarter Ended	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017
Net Income	\$ 9,730	\$ 8,531	\$ 8,071	\$ 7,416	\$ 7,208
Transactions Recorded in Net Income (Net of Tax):					
Net Gain (Loss) on Securities Transactions	—	—	(278)	6	—
Tax Benefit from Net Deferred Tax Liability Revaluation	—	—	1,116	—	—
Share and Per Share Data:⁽¹⁾					
Period End Shares Outstanding	14,004	13,950	13,930	13,891	13,900
Basic Average Shares Outstanding	13,975	13,936	13,905	13,889	13,890
Diluted Average Shares Outstanding	14,058	14,016	14,006	13,966	13,975
Basic Earnings Per Share	\$ 0.70	\$ 0.61	\$ 0.58	\$ 0.53	\$ 0.52
Diluted Earnings Per Share	0.69	0.61	0.58	0.53	0.52
Cash Dividend Per Share	0.250	0.250	0.250	0.243	0.243
Selected Quarterly Average Balances:					
Interest-Bearing Deposits at Banks	28,543	27,978	27,047	27,143	24,480
Investment Securities	647,913	642,442	660,043	677,368	684,570
Loans	2,026,598	1,971,240	1,930,590	1,892,766	1,842,543
Deposits	2,325,202	2,305,736	2,284,206	2,193,778	2,206,365
Other Borrowed Funds	219,737	184,613	187,366	262,864	207,270
Stockholders' Equity	256,358	251,109	247,253	243,801	239,396
Total Assets	2,823,061	2,763,706	2,744,180	2,725,653	2,677,843
Return on Average Assets, annualized	1.38%	1.25%	1.17%	1.08%	1.08%
Return on Average Equity, annualized	15.22%	13.78%	12.95%	12.07%	12.08%
Return on Average Tangible Equity, annualized ⁽²⁾	16.80%	15.24%	14.36%	13.40%	13.45%
Average Earning Assets	2,703,054	2,641,660	2,617,680	2,597,277	2,551,593
Average Paying Liabilities	2,100,085	2,050,661	2,029,811	2,012,802	2,005,421
Interest Income	23,590	22,418	22,135	21,599	20,926
Tax-Equivalent Adjustment ⁽³⁾	468	491	980	966	949
Interest Income, Tax-Equivalent ⁽³⁾	24,058	22,909	23,115	22,565	21,875
Interest Expense	2,628	2,016	1,821	1,949	1,699
Net Interest Income	20,962	20,402	20,314	19,650	19,227
Net Interest Income, Tax-Equivalent ⁽³⁾	21,430	20,893	21,294	20,616	20,176
Net Interest Margin, annualized	3.11%	3.13%	3.08%	3.00%	3.02%
Net Interest Margin, Tax Equivalent, annualized ⁽³⁾	3.18%	3.21%	3.23%	3.15%	3.17%
Efficiency Ratio Calculation:⁽⁴⁾					
Noninterest Expense	\$ 16,192	\$ 15,955	\$ 16,045	\$ 15,548	\$ 15,637
Less: Intangible Asset Amortization	66	67	69	69	70
Net Noninterest Expense	16,126	15,888	15,976	15,479	15,567
Net Interest Income, Tax-Equivalent ⁽³⁾	21,430	20,893	21,294	20,616	20,176
Noninterest Income	7,911	6,888	6,752	7,141	7,057
Less: Net Securities Gain (Loss)	—	—	(458)	10	—
Less: Net Gain on Equity Securities	223	18	—	—	—
Net Gross Income	29,118	27,763	28,504	27,747	27,233
Efficiency Ratio ⁽⁴⁾	55.38%	57.23%	56.05%	55.79%	57.16%
Period-End Capital Information:					
Total Stockholders' Equity (i.e. Book Value)	\$ 259,488	\$ 252,734	\$ 249,603	\$ 244,648	\$ 240,752
Book Value per Share ⁽¹⁾	18.53	18.12	17.92	17.61	17.32
Goodwill and Other Intangible Assets, net	23,933	24,045	24,162	24,268	24,355
Tangible Book Value per Share ^(1,2)	16.82	16.39	16.18	15.86	15.57
Capital Ratios:⁽⁵⁾					
Tier 1 Leverage Ratio	9.65%	9.62%	9.49%	9.30%	9.35%
Common Equity Tier 1 Capital Ratio	13.01%	12.97%	12.89%	12.70%	12.68%
Tier 1 Risk-Based Capital Ratio	14.04%	14.03%	13.97%	13.79%	13.79%
Total Risk-Based Capital Ratio	15.06%	15.04%	14.99%	14.77%	14.77%
Assets Under Trust Administration and Investment Management					
	\$1,479,753	\$1,470,191	\$1,452,994	\$ 1,411,608	\$ 1,356,262

Arrow Financial Corporation
Selected Quarterly Information - Continued
(Dollars In Thousands, Except Per Share Amounts - Unaudited)

Footnotes:

- Share and Per Share Data have been restated for the September 28, 2017, 3% stock dividend.
- Non-GAAP Financial Measures Reconciliation: Tangible Book Value, Tangible Equity and Return on Tangible Equity exclude goodwill and other intangible assets, net from total equity. These are non-GAAP financial measures which we believe provide investors with information that is useful in understanding our financial performance. See "Use of Non-GAAP Financial Measures" on page 40.

	<u>6/30/2018</u>	<u>3/31/2018</u>	<u>12/31/2017</u>	<u>9/30/2017</u>	<u>6/30/2017</u>
Total Stockholders' Equity (GAAP)	\$ 259,488	\$ 252,734	\$ 249,603	\$ 244,648	\$ 240,752
Less: Goodwill and Other Intangible assets, net	23,933	24,045	24,162	24,268	24,355
Tangible Equity (Non-GAAP)	<u>\$ 235,555</u>	<u>\$ 228,689</u>	<u>\$ 225,441</u>	<u>\$ 220,380</u>	<u>\$ 216,397</u>
Period End Shares Outstanding	14,004	13,950	13,930	13,891	13,900
Tangible Book Value per Share (Non-GAAP)	\$ 16.82	\$ 16.39	\$ 16.18	\$ 15.86	\$ 15.57

- Non-GAAP Financial Measures Reconciliation: Net Interest Margin is the ratio of our annualized tax-equivalent net interest income to average earning assets. This is also a non-GAAP financial measure which we believe provides investors with information that is useful in understanding our financial performance. See "Use of Non-GAAP Financial Measures" on page 40.

	<u>6/30/2018</u>	<u>3/31/2018</u>	<u>12/31/2017</u>	<u>9/30/2017</u>	<u>6/30/2017</u>
Net Interest Income (GAAP)	\$ 20,962	\$ 20,402	\$ 20,314	\$ 19,650	\$ 19,227
Add: Tax-Equivalent adjustment (Non-GAAP)	468	491	980	966	949
Net Interest Income - Tax Equivalent (Non-GAAP)	<u>\$ 21,430</u>	<u>\$ 20,893</u>	<u>\$ 21,294</u>	<u>\$ 20,616</u>	<u>\$ 20,176</u>
Average Earning Assets	\$ 2,703,054	\$ 2,641,660	\$ 2,617,680	\$ 2,597,277	\$ 2,551,593
Net Interest Margin (Non-GAAP)*	3.18%	3.21%	3.23%	3.15%	3.17%

- Non-GAAP Financial Measures: Financial Institutions often use the "efficiency ratio", a non-GAAP ratio, as a measure of expense control. We believe the efficiency ratio provides investors with information that is useful in understanding our financial performance. We define our efficiency ratio as the ratio of our noninterest expense to our net gross income (which equals our tax-equivalent net interest income plus noninterest income, as adjusted). There is no GAAP financial measure that is closely comparable to the efficiency ratio. See "Use of Non-GAAP Financial Measures" on page 40.
- For the current quarter, all of the regulatory capital ratios in the table on page 40 and the table in this Note 5, below, as well as the Total Risk-Weighted Assets and Common Equity Tier 1 Capital amounts listed in the table below, are estimates based on, and calculated in accordance with, bank regulatory capital rules. The Common Equity Tier 1 Capital Ratio (CET1 Ratio) of Arrow as of June 30, 2018 that is listed in the tables (i.e., 13.01%) not only exceeds the currently required minimum CET1 Ratio (including Conservation Buffer) of 6.375%, but also exceeds the minimum CET1 Ratio that will be required when the Conservation Buffer is fully phased-in, on January 1, 2019, of 7.00% (including the ultimate required Conservation Buffer of 2.50%).

	<u>6/30/2018</u>	<u>3/31/2018</u>	<u>12/31/2017</u>	<u>9/30/2017</u>	<u>6/30/2017</u>
Total Risk Weighted Assets	\$ 1,934,890	\$ 1,889,719	\$ 1,856,242	\$ 1,830,730	\$ 1,802,455
Common Equity Tier 1 Capital	259,488	265,066	259,378	232,473	228,586
Common Equity Tier 1 Capital Ratio	13.01%	12.97%	12.89%	12.70%	12.68%

* Quarterly ratios have been annualized.

Arrow Financial Corporation
Selected Year-to-Date Information

(Dollars In Thousands, Except Per Share Amounts - Unaudited)

Six Months Ended	6/30/2018	6/30/2017
Net Income	\$ 18,261	\$ 13,839

Share and Per Share Data:⁽¹⁾

Period End Shares Outstanding	14,004	13,900
Basic Average Shares Outstanding	13,955	13,889
Diluted Average Shares Outstanding	14,038	13,989
Basic Earnings Per Share	\$ 1.31	\$ 1.00
Diluted Earnings Per Share	1.30	0.99
Cash Dividend Per Share	0.50	0.49

Selected Year-to-Date Average Balances:

Interest-Bearing Deposits at Banks	28,262	24,025
Investment Securities	645,193	690,061
Loans	1,999,072	1,811,998
Deposits	2,315,523	2,184,204
Other Borrowed Funds	202,272	206,358
Stockholders' Equity	253,749	237,338
Total Assets	2,793,551	2,652,298
Return on Average Assets, annualized	1.32%	1.05%
Return on Average Equity, annualized	14.51%	11.76%
Return on Average Tangible Equity, annualized ⁽²⁾	16.03%	13.11%
Average Earning Assets	2,672,527	2,526,084
Average Paying Liabilities	2,075,510	1,991,601
Interest Income	46,008	40,923
Tax-Equivalent Adjustment ⁽³⁾	959	1,897
Interest Income, Tax-Equivalent ⁽³⁾	46,967	42,820
Interest Expense	4,644	3,235
Net Interest Income	41,364	37,688
Net Interest Income, Tax-Equivalent ⁽³⁾	42,322	39,585
Net Interest Margin, annualized	3.12%	3.01%
Net Interest Margin, Tax Equivalent, annualized ⁽³⁾	3.19%	3.16%

Efficiency Ratio Calculation: ⁽⁴⁾

Noninterest Expense	32,148	31,112
Less: Intangible Asset Amortization	132	141
Net Noninterest Expense	32,016	30,971
Net Interest Income, Tax-Equivalent ⁽³⁾	42,323	39,585
Noninterest Income	14,800	13,752
Less: Net Gain on Equity Securities	241	—
Net Gross Income	56,882	53,337
Efficiency Ratio ⁽⁴⁾	56.28%	58.07%

Arrow Financial Corporation
Selected Year-to-Date Information - Continued
(Dollars In Thousands, Except Per Share Amounts - Unaudited)

Footnotes:

- Share and Per Share Data have been restated for the September 28, 2017, 3% stock dividend.
- Tangible Book Value, Tangible Equity and Return on Tangible Equity exclude goodwill and other intangible assets, net from total equity. These are non-GAAP financial measures which we believe provide investors with information that is useful in understanding our financial performance. See "Use of Non-GAAP Financial Measures" on page 40.

	<u>6/30/2018</u>	<u>6/30/2017</u>
Total Stockholders' Equity (GAAP)	\$ 259,488	\$ 240,752
Less: Goodwill and Other Intangible assets, net	23,933	24,355
Tangible Equity (Non-GAAP)	<u>\$ 235,555</u>	<u>\$ 216,397</u>
Period End Shares Outstanding	14,004	13,900
Tangible Book Value per Share (Non-GAAP)	\$ 16.82	\$ 15.57
Net Income	18,261	13,839
Return on Tangible Equity (Net Income/Tangible Equity - Annualized)	16.03%	13.11%

- Net Interest Margin is the ratio of our annualized tax-equivalent net interest income to average earning assets. This is also a non-GAAP financial measure which we believe provides investors with information that is useful in understanding our financial performance. See "Use of Non-GAAP Financial Measures" on page 40.

	<u>6/30/2018</u>	<u>6/30/2017</u>
Interest Income (GAAP)	\$ 46,008	\$ 40,923
Add: Tax-Equivalent adjustment (Non-GAAP)	\$ 959	\$ 1,897
Net Interest Income - Tax Equivalent (Non-GAAP)	\$ 46,967	\$ 42,820
Net Interest Income (GAAP)	\$ 41,364	\$ 37,688
Add: Tax-Equivalent adjustment (Non-GAAP)	959	1,897
Net Interest Income - Tax Equivalent (Non-GAAP)	<u>\$ 42,323</u>	<u>\$ 39,585</u>
Average Earning Assets	\$ 2,672,527	\$ 2,526,084
Net Interest Margin (Non-GAAP)*	3.19%	3.16%

- Financial Institutions often use the "efficiency ratio", a non-GAAP ratio, as a measure of expense control. We believe the efficiency ratio provides investors with information that is useful in understanding our financial performance. We define our efficiency ratio as the ratio of our noninterest expense to our net gross income (which equals our tax-equivalent net interest income plus noninterest income, as adjusted). See "Use of Non-GAAP Financial Measures" on page 40.

* Year-to-date ratios have been annualized.

Average Consolidated Balance Sheets and Net Interest Income Analysis

(see "Use of Non-GAAP Financial Measures" on page 40)

(Dollars In Thousands)

Quarter Ended June 30:	2018			2017		
	Average Balance	Interest Income/ Expense	Rate Earned/ Paid	Average Balance	Interest Income/ Expense	Rate Earned/ Paid
Interest-Bearing Deposits at Banks	\$ 28,543	\$ 158	2.22 %	\$ 24,480	\$ 78	1.28 %
Investment Securities:						
Fully Taxable	376,253	2,050	2.19	400,315	2,018	2.02
Exempt from Federal Taxes ⁽²⁾	271,660	1,859	2.74	284,255	2,351	3.32
Loans ⁽²⁾	2,026,598	19,991	3.96	1,842,543	17,428	3.79
Total Earning Assets	2,703,054	24,058	3.57	2,551,593	21,875	3.44
Allowance for Loan Losses	(19,065)			(17,143)		
Cash and Due From Banks	34,935			35,029		
Other Assets	104,137			108,364		
Total Assets	\$2,823,061			\$2,677,843		
Deposits:						
Interest-Bearing Checking Accounts	\$ 866,996	388	0.18	\$ 918,235	381	0.17
Savings Deposits	750,352	711	0.38	681,197	317	0.19
Time Deposits of \$250,000 or More	96,580	328	1.36	31,126	66	0.85
Other Time Deposits	166,420	282	0.68	167,593	232	0.56
Total Interest-Bearing Deposits	1,880,348	1,709	0.36	1,798,151	996	0.22
Short-Term Borrowings	154,737	465	1.21	132,270	271	0.82
FHLBNY Term Advances and Other Long-Term Debt	65,000	454	2.80	75,000	432	2.31
Total Interest-Bearing Liabilities	2,100,085	2,628	0.50	2,005,421	1,699	0.34
Noninterest-bearing deposits	444,854			408,214		
Other Liabilities	21,764			24,812		
Total Liabilities	2,566,703			2,438,447		
Stockholders' Equity	256,358			239,396		
Total Liabilities and Stockholders' Equity	\$2,823,061			\$2,677,843		
Net Interest Income (Tax-equivalent Basis) (Non-GAAP) ^{(1) (2)}		21,430			20,176	
Reversal of Tax Equivalent Adjustment		(468)	(0.07)%		(949)	(0.15)%
Net Interest Income		\$ 20,962			\$ 19,227	
Net Interest Spread (Non-GAAP) ^{(1) (2)}			3.07 %			3.10 %
Net Interest Margin (Non-GAAP) ^{(1) (2)}			3.18 %			3.17 %

¹ See Note 3 on p. 44.

² Fully taxable basis using a marginal federal tax rate of 35% for 2017, 21% for 2018.

Average Consolidated Balance Sheets and Net Interest Income Analysis

(see "Use of Non-GAAP Financial Measures" on page 40)

Six Months Ended June 30:	(Dollars In Thousands)					
	2018			2017		
	Average Balance	Interest Income/ Expense	Rate Earned/ Paid	Average Balance	Interest Income/ Expense	Rate Earned/ Paid
Interest-Bearing Deposits at Banks	\$ 28,262	\$ 292	2.08 %	\$ 24,025	\$ 138	1.16 %
Investment Securities:						
Fully Taxable	368,126	3,945	2.16	402,876	4,012	2.01
Exempt from Federal Taxes ⁽²⁾	277,067	3,806	2.77	287,185	4,712	3.31
Loans ⁽²⁾	1,999,072	38,924	3.93	1,811,998	33,958	3.78
Total Earning Assets	<u>2,672,527</u>	<u>46,967</u>	3.54	<u>2,526,084</u>	<u>42,820</u>	3.42
Allowance for Loan Losses	(18,795)			(17,060)		
Cash and Due From Banks	35,270			35,276		
Other Assets	104,547			107,998		
Total Assets	<u>\$2,793,549</u>			<u>\$2,652,298</u>		
Deposits:						
Interest-Bearing Checking Accounts	\$ 890,426	775	0.18	\$ 906,637	712	0.16
Savings Deposits	737,080	1,233	0.34	679,439	608	0.18
Time Deposits of \$250,000 or More	80,085	532	1.34	32,435	121	0.75
Other Time Deposits	165,647	541	0.66	166,732	460	0.56
Total Interest-Bearing Deposits	<u>1,873,238</u>	<u>3,081</u>	0.33	<u>1,785,243</u>	<u>1,901</u>	0.21
Short-Term Borrowings	133,405	662	1.00	131,358	481	0.74
FHLBNY Term Advances and Other Long-Term Debt	68,867	902	2.64	75,000	853	2.29
Total Interest-Bearing Liabilities	<u>2,075,510</u>	<u>4,645</u>	0.45	<u>1,991,601</u>	<u>3,235</u>	0.33
Noninterest-bearing deposits	442,285			398,961		
Other Liabilities	22,005			24,398		
Total Liabilities	<u>2,539,800</u>			<u>2,414,960</u>		
Stockholders' Equity	253,749			237,338		
Total Liabilities and Stockholders' Equity	<u>\$2,793,549</u>			<u>\$2,652,298</u>		
Net Interest Income (Tax-equivalent Basis)						
(Non-GAAP) ^{(1) (2)}		42,322			39,585	
Reversal of Tax Equivalent Adjustment		(959)	(0.07)%		(1,897)	(0.15)%
Net Interest Income		<u>\$ 41,363</u>			<u>\$ 37,688</u>	
Net Interest Spread (Non-GAAP) ^{(1) (2)}			3.09 %			3.09 %
Net Interest Margin (Non-GAAP) ^{(1) (2)}			3.19 %			3.16 %

¹ See Note 3 on p. 44.

² Fully taxable basis using a marginal federal tax rate of 35% for 2017, 21% for 2018.

OVERVIEW

Net income for the second quarter of 2018 was \$9.7 million, an increase of \$2.5 million, or 35.0%, over our net income for the second quarter of 2017. Diluted earnings per share (EPS) for the quarter was \$0.69, an increase of 32.7% from the EPS of \$0.52 reported for the second quarter of 2017. Factors contributing to the increase in net income for the current quarter compared to the comparable prior year quarter are as follows: Net interest income on a GAAP basis increased 9.0% to \$21.0 million primarily due to the increase in total interest and dividend income of \$2.7 million, as a result of the \$2.6 million increase in the interest and fees on loans, as compared to a \$929 thousand increase in interest expense. In addition, net interest margin for the first quarter of 2018 was 3.11%, up from 3.02% for the first quarter of 2017. Total noninterest income increased \$854 thousand mainly due to the \$497 thousand increase in income from fiduciary activities, while total noninterest expenses increased \$555 thousand. The provision for income taxes decreased \$695 thousand, or 23% due to the reduction of tax rates as a result of the Tax Act.

Return on average equity (ROE) for the second quarter of 2018 continued to be strong at 15.22%, up from an ROE of 12.08% for the second quarter ended June 30, 2017. Return on average assets (ROA) for the 2018 second quarter was 1.38%, an increase from an ROA of 1.08% for the second quarter ended June 30, 2017.

The changes in net income, net interest income and net interest margin between the three month periods are discussed in detail under the heading "RESULTS OF OPERATIONS," beginning on page 60.

Regulatory Reform: The first bipartisan financial regulatory reform bill to be enacted in nearly a decade, the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA), was signed into law May 24, 2018. Some of its provisions were written to take effect immediately; others have later specified effective dates and still others are open-ended, to be implemented by rule-making.

This legislation includes a variety of provisions that are likely to affect community banking institutions such as Arrow, including the following:

- The federal bank regulatory agencies are directed to establish a "community bank leverage ratio" of between 8% and 10%, calculated by dividing tangible equity capital by average total consolidated assets of "qualifying community banks" that meet certain requirements to be set by those regulatory agencies. A qualifying community bank is a depository institution or bank holding company with less than \$10 billion in total assets, such as Arrow. If a qualifying community bank exceeds the community bank leverage ratio, it will be deemed to have met all applicable capital and leverage requirements, including the generally applicable leverage capital requirements and risk-based capital requirements and the "well capitalized" requirement under the federal "prompt corrective action" capital standards. This new community bank leverage ratio is expected to reduce the burden of compliance with regard to regulatory capital adequacy.
- The definition of "high volatility commercial real estate" loans that trigger heightened risk-based capital requirements, has been modified and limited to ease the burden of those requirements.
- The total asset threshold for qualifying insured financial institutions eligible for an 18-month examination cycle has been increased from \$1 billion to \$3 billion.
- The new law provides that reciprocal deposits of an agent institution shall not be considered "brokered deposits," subject to certain limitations.
- Some community banks will be exempt from mortgage escrow requirements, and an expanded "qualified mortgage" exemption for community banks has been implemented to ease the burden of the "ability to repay" requirements in the Truth in Lending Act.
- Financial institutions with less than \$10 billion in total assets that meet certain requirements will be exempt from the Volcker Rule proprietary trading requirements implemented under Dodd Frank.

Regulatory Capital and Increase in Stockholders' Equity: At June 30, 2018, we continued to exceed by a substantial amount all required minimum capital ratios under the bank regulatory capital rules at both the holding company and bank levels. At that date, both of our banks, as well as our holding company, continued to qualify as "well-capitalized" under the capital classification guidelines as defined by the current bank regulatory capital rules. Because of our continued profitability and strong asset quality, our regulatory capital levels throughout recent years have consistently remained well in excess of the various required regulatory minimums in effect from time to time, as they do at present. Pursuant to the Dodd-Frank Act, required minimum regulatory capital levels for insured banks and their parent holding companies were scheduled to increase in 2019. As explained above, pursuant to EGRRCPA, the federal bank regulators are required to implement a simplified community bank leverage ratio capital standard that may be applicable to Arrow and its subsidiary banks to allow them to satisfy all applicable capital and leverage requirements, including the currently applicable risk-based capital ratio requirements. The implementation of the new community bank leverage ratio standards will be subject to the notice and comment procedures of rulemaking. EGRRCPA does not impose a deadline for this rulemaking. It is anticipated that, when this new standard is implemented, it will simplify capital adequacy compliance requirements for community banks and holding companies such as Arrow.

Stockholders' equity was \$259.5 million at June 30, 2018, an increase of \$9.9 million, or 4.0%, from the December 31, 2017 level of \$249.6 million, and an increase of \$18.7 million, or 7.8%, from the prior-year level. The components of the change in stockholders' equity since year-end 2017 are presented in the Consolidated Statement of Changes in Stockholders' Equity on page 6, and are discussed in more detail in the next section.

At June 30, 2018, book value per share was \$18.53, up by 7.0% over the prior-year level. Tangible book value per share (a non-GAAP measure that deducts intangible assets from stockholders' equity) was \$16.82, an increase of \$1.25, or 8.0%, over the level as of June 30, 2017. See the disclosure on page 40 related to our use of non-GAAP financial measures including tangible book value. In the first six months of 2018, total stockholders' equity increased by 4.0% and total book value per share increased by 10.5%. The increase in stockholders' equity over the first six months of 2018 principally reflected the following factors: (i) \$18.3 million of net income for the period and (ii) issuance of \$3.1 million of common stock through employee benefit and dividend reinvestment plans; reduced by (iii) cash dividends of \$7.0 million; and (iv) repurchases of the Company's own common stock, primarily in connection with the approved treasury stock repurchase plan of \$1.4 million. On June 30, 2018, the Company's closing stock price was \$36.40, representing a trading multiple of 2.16 to tangible book value. As adjusted for a 3.0% stock dividend distributed September 28, 2017, the Company paid a quarterly cash dividend of \$0.243 per share for each of the first three quarters of 2017 and a cash dividend of \$0.25 per share for the last quarter of 2017 and the first and second quarters of 2018.

Loan Quality: Net charge-offs for the second quarter of 2018 were \$46 thousand as compared to \$196 thousand for the comparable 2017 quarter. The ratio of net charge-offs to average loans (annualized) was 0.01% for the second quarter of 2018 compared to 0.04% for the second quarter of 2017. At June 30, 2018, the allowance for loan losses was \$19.6 million representing 0.95% of total loans, which is a 1 basis point decrease from the March 31, 2018 ratio and equal to the December 31, 2017 ratio. The Company believes this allowance is appropriate and reflects the continuing strong credit quality in the loan portfolio.

Nonperforming loans were \$4.2 million at June 30, 2018, representing 0.20% of period-end loans, a decrease of 18 basis points from the prior year comparable quarter ratio, which compares favorably with the weighted average ratio of our peer group of 0.66% at March 31, 2018.

Loan Segments: During the quarter ended June 30, 2018, total loans grew by \$64.8 million, or 3.3% as compared to the balance at March 31, 2018. The largest increase was in consumer loans which increased during the quarter by \$35.3 million, or 5.6%. In addition, residential real estate loans expanded by \$29.0 million, or 3.7% and the commercial loan portfolio increased by \$0.5 million, or 0.1%.

Commercial Loans: These loans comprised 5.8% of the total loan portfolio at period-end. The business sector in the Company's service area, including small- and mid-sized businesses with headquarters in the area, continued to be in reasonably good financial condition at period-end.

Commercial Real Estate Loans: These loans comprised 22.6% of the total loan portfolio at period-end. Commercial property values in the Company's region have remained stable in recent periods. Appraisals on our nonperforming and watched CRE loan properties are updated as deemed necessary, usually when the loan is downgraded or when there has been significant market deterioration since the last appraisal.

Consumer Loans: These loans (primarily automobile loans) comprised 32.2% of the total loan portfolio at period-end. Consumer automobile loans at June 30, 2018, were \$655 million, or 98.9% of this portfolio segment. In the first six months of 2018, the Company did not experience any significant increase in the delinquency rate or in the percentage of nonperforming loans in this segment.

Residential Real Estate Loans: These loans, including home equity loans, made up 39.5% of the total loan portfolio at period-end. The residential real estate market in the Company's service area has been stable in recent periods. The Company originated nearly all of the residential real estate loans currently held in the loan portfolio and apply conservative underwriting standards to loan originations. The Company typically sells a portion of residential real estate mortgage originations into the secondary market. The ratio of the sales of originations to total originations tends to fluctuate from period to period, although this ratio has generally declined somewhat in recent periods.

Liquidity and Access to Credit Markets: The Company has not experienced any liquidity problems or special concerns thus far in 2018, or in any prior years back to and during the financial crisis. The terms of the Company's lines of credit with correspondent banks, the FHLBNY and the Federal Reserve Bank have not changed significantly in recent periods (see the general liquidity discussion on page 59). Historically, the Company has principally relied on asset-based liquidity (i.e., funds in overnight investments and cash flow from maturing investments and loans) with liability-based liquidity as a secondary source of funds (the main liability-based sources are overnight borrowing arrangements with our correspondent banks, an arrangement for overnight borrowing and term credit advances from the FHLBNY, and an additional arrangement for short-term advances at the Federal Reserve Bank discount window). Regular liquidity stress tests and tests of the contingent liquidity plan are performed to ensure that an adequate amount of available funds can be generated to meet a wide variety of potential liquidity crises, including a severe crisis.

Visa Class B Common Stock: Arrow's subsidiary bank, Glens Falls National Bank, like other Visa member banks, bears some indirect contingent liability for Visa's direct liability arising out of certain antitrust claims involving merchant discounts to the extent that Visa's liability might exceed the amount funded in their litigation escrow account. If a settlement is reached and the balance in the litigation escrow account is sufficient to cover the litigation claims and related expenses, Arrow could potentially realize a gain on the receipt of Visa Class A common stock. At June 30, 2018, Arrow held 27,771 shares of Visa Class B common stock, and utilizing the conversion ratio to Class A common stock at that time, these Class B shares would convert to 45 thousand shares of Visa Class A common stock. Since the litigation settlement is not certain, the Company does not recognize any economic value for these shares.

CHANGE IN FINANCIAL CONDITION
Summary of Selected Consolidated Balance Sheet Data
(Dollars in Thousands)

	<u>At Period-End</u>			\$ Change From December	\$ Change From June	% Change From December (not annualized)	% Change From June
	June 30, 2018	December 31, 2017	June 30, 2017				
Interest-Bearing Bank Balances	\$ 22,189	\$ 30,276	\$ 26,972	\$ (8,087)	\$ (4,783)	(26.7)%	(17.7)%
Securities Available-for-Sale	325,387	300,200	327,392	25,187	(2,005)	8.4 %	(0.6)%
Securities Held-to-Maturity	297,885	335,907	348,018	(38,022)	(50,133)	(11.3)%	(14.4)%
Equity Securities ⁽¹⁾	1,802	—	—	1,802	1,802		
Loans ⁽²⁾	2,057,862	1,950,770	1,878,632	107,092	179,230	5.5 %	9.5 %
Allowance for Loan Losses	19,640	18,586	17,442	1,054	2,198	5.7 %	12.6 %
Earning Assets ⁽²⁾	2,716,214	2,627,102	2,592,049	89,112	124,165	3.4 %	4.8 %
Total Assets	<u>\$ 2,845,171</u>	<u>\$ 2,760,465</u>	<u>\$ 2,721,721</u>	<u>\$ 84,706</u>	<u>\$ 123,450</u>	3.1 %	4.5 %
Noninterest-Bearing Deposits	\$ 467,048	\$ 441,945	\$ 433,480	\$ 25,103	\$ 33,568	5.7 %	7.7 %
Interest-Bearing Checking Accounts	861,959	907,315	905,624	(45,356)	(43,665)	(5.0)%	(4.8)%
Savings Deposits	735,217	694,573	679,320	40,644	55,897	5.9 %	8.2 %
Time Deposits over \$250,000	70,950	38,147	33,630	32,803	37,320	86.0 %	111.0 %
Other Time Deposits	169,607	163,136	167,984	6,471	1,623	4.0 %	1.0 %
Total Deposits	<u>\$ 2,304,781</u>	<u>\$ 2,245,116</u>	<u>\$ 2,220,038</u>	<u>\$ 59,665</u>	<u>\$ 84,743</u>	2.7 %	3.8 %
Federal Funds Purchased and Securities Sold Under Agreements to Repurchase	\$ 60,248	\$ 64,966	\$ 40,892	\$ (4,718)	\$ 19,356	(7.3)%	47.3 %
FHLBNY Advances - Overnight	136,000	105,000	122,000	31,000	14,000	29.5 %	11.5 %
FHLBNY Advances - Term	45,000	55,000	55,000	(10,000)	(10,000)	(18.2)%	(18.2)%
Junior Subordinated Obligations Issued to Unconsolidated Subsidiary Trusts	20,000	20,000	20,000	—	—	— %	— %
Stockholders' Equity	259,488	249,603	240,752	9,885	18,736	4.0 %	7.8 %

(1) Equity Securities were included in Securities Available-for-Sale prior to the January 1, 2018 adoption of ASU 2016-01.

(2) Includes Nonaccrual Loans.

Municipal Deposits: Fluctuations in balances of interest-bearing checking accounts are largely the result of municipal deposit fluctuations. Municipal deposits on average represent 26% to 33% of total deposits. Municipal deposits are typically placed in interest-bearing checking and savings accounts, as well as various time deposits.

In general, there is a seasonal pattern to municipal deposits which dip to a low point in August each year. Account balances tend to increase throughout the fall and into early winter from tax deposits, flatten out after the beginning of the ensuing calendar year, and increase again at the end of March from the electronic deposit of NYS Aid payments to school districts. In addition to these seasonal fluctuations within types of accounts, the overall level of municipal deposit balances fluctuates from year-to-year as some municipalities move their accounts in and out of the Company's banks due to competitive factors. Often, the balances of municipal deposits at the end of a quarter are not representative of the average balances for that quarter.

If in the future, interest rates begin to rise significantly or the competition for municipal deposits otherwise becomes more intense, the Company may be forced to pay higher rates on such deposits above its normal rates or municipal deposit levels may decrease if competitive rates exceed what the Company offers.

Changes in Sources of Funds: Total deposits increased \$59.7 million, or 2.7%, from December 31, 2017 to June 30, 2018 mainly due to the following: the \$25.1 million increase in Demand Deposits was from personal and business deposits; the \$45.4 million decrease in Interest-Bearing Checking Accounts was from the recurring seasonality in municipal deposit balances; the \$40.6 million increase in Savings Deposits was mainly due to the use of brokered deposits in the first quarter 2018 to diversify balance sheet funding; and the \$32.8 million increase in Time Deposits over \$250,000 was due to certain municipal and non-municipal customers seeking a higher return on their deposit balances as compared to the rates on non-maturity deposits. At June 30, 2018, term advances from the FHLBNY were \$45 million, reflecting the non-renewal of a \$10 million advance that matured during the first quarter of 2018.

Changes in Earning Assets: The loan portfolio at June 30, 2018, was \$2.1 billion, up by \$107.1 million, or 5.5%, from the December 31, 2017 level and up by \$179.2 million, or 9.5%, from the June 30, 2017 level. The following trends were experienced in our four largest segments:

1. **Commercial loans.** This segment of the loan portfolio decreased by \$10.4 million, or 8.0%, during the first six months of 2018. Some of this may be attributable to seasonal swings in lines of credit, as well as prepayments and refinancings of loans.

2. Commercial real estate loans. This segment of the loan portfolio increased by \$20.1 million, or 4.5%, during the first six months of 2018, representing the continued strong demand for such loans.
3. Consumer loans (primarily automobile loans through indirect lending). As of June 30, 2018, these loans, primarily auto loans, had increased by \$59.1 million, or 9.8%, from the December 31, 2017 balance, reflecting a continuation of strong demand for new and used vehicles region-wide and an expansion of our dealer network for indirect lending.
4. Residential real estate loans. This segment increased during the first six months of 2018, by \$38.2 million, or 4.9%. As in prior periods, a portion of the residential mortgage loans that were originated during the period were sold to the secondary market. Gross originations were up in the second quarter of 2018, compared to the first quarter of 2018 and back to comparable levels when compared to the second quarter of 2017, reflecting seasonal demand for housing purchases and home equity loans.

Deposit Trends

The following tables provide information on trends in the balance and mix of our deposit portfolio by presenting, for each of the last five quarters, the quarterly average balances by deposit type and the percentage of total deposits represented by each deposit type. Noninterest-bearing deposits increased steadily from June 30, 2017, while the volatility in interest-bearing checking account balances was a result of the seasonality in municipal deposits. The increase in savings deposits in the 2018 periods was mainly due to the \$45 million of brokered deposits obtained in the first quarter of 2018. The increase in time deposits over \$250,000 beginning in the first quarter of 2018 was due to the increase in the market rates of time deposits as compared to non-maturity deposits. If and to the extent that interest rates and corresponding deposit rates across all maturities begin to increase in future periods, we would expect to see further growth in time deposits.

Quarterly Average Deposit Balances

(Dollars in Thousands)

	Quarter Ended				
	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017
Noninterest-bearing deposits	\$ 444,854	\$ 439,688	\$ 441,761	\$ 443,840	\$ 408,214
Interest-Bearing Checking Accounts	866,996	914,116	945,414	869,748	918,235
Savings Deposits	750,352	723,660	701,694	682,347	681,197
Time Deposits over \$250,000	96,580	63,406	32,430	31,067	31,126
Other Time Deposits	166,420	164,866	162,907	166,776	167,593
Total Deposits	<u>\$ 2,325,202</u>	<u>\$ 2,305,736</u>	<u>\$ 2,284,206</u>	<u>\$ 2,193,778</u>	<u>\$ 2,206,365</u>

Percentage of Total Quarterly Average Deposits

	Quarter Ended				
	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017
Noninterest-bearing deposits	19.1%	19.1%	19.3%	20.2%	18.5%
Interest-Bearing Checking Accounts	37.3	39.6	41.4	39.6	41.6
Savings Deposits	32.2	31.4	30.8	31.2	30.9
Time Deposits over \$250,000	4.2	2.7	1.4	1.4	1.4
Other Time Deposits	7.2	7.2	7.1	7.6	7.6
Total Deposits	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

Quarterly Cost of Deposits

	Quarter Ended				
	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017
Noninterest-bearing deposits	—%	—%	—%	—%	—%
Interest-Bearing Checking Accounts	0.18	0.17	0.18	0.17	0.17
Savings Deposits	0.38	0.29	0.23	0.21	0.19
Time Deposits over \$250,000	1.36	1.30	1.17	0.84	0.85
Other Time Deposits	0.68	0.64	0.60	0.57	0.56
Total Deposits	0.29	0.24	0.20	0.19	0.18

During the quarter ended June 30, 2018, the total cost of deposits increased 5 basis points from 0.24% to 0.29%, an increase roughly equivalent to that seen during the first quarter of 2018. These increases were the result of deposit customers seeking a higher rate of return as the market rates for savings and time deposits increase. Given the uncertainty surrounding the future of interest rates, the Company is unable to predict at this time what the short- or long-term effect of the Federal Reserve's interest rate policy may be.

Non-Deposit Sources of Funds

The Company's other sources of funds include securities sold under agreements to repurchase, overnight advances and term advances from the FHLBNY. The securities sold under agreements to repurchase are short-term in nature and are collateralized by investment securities. The term advances from the FHLBNY are fixed rate non-callable advances with original maturities of three to five years.

Arrow no longer relies on TRUPs as a source of new funds. As a result of the passage of the Dodd-Frank Act in 2010 and its removal of Tier 1 regulatory capital treatment for TRUPs issued after the Act's grandfathering date, the Company, like other banking organizations of our size or larger, have not issued any TRUPs since that date and are not likely to issue any TRUPs in the future. However, consistent with the grandfathering provision in Dodd-Frank, the \$20 million principal amount of Junior Subordinated Obligations Issued to Unconsolidated Subsidiary Trusts listed on the consolidated balance sheet as of June 30, 2018 will, subject to certain limits, continue to qualify as Tier 1 regulatory capital for Arrow until such TRUPs mature or are redeemed. This is further discussed under "Capital Resources" beginning on page 57 of this Report. These trust preferred securities are subject to early redemption by the Company if the proceeds cease to qualify as Tier 1 capital of Arrow for any reason, or if any of certain other unanticipated but negative events should occur. An example is any adverse change in tax laws that might deny the Company the ability to deduct interest paid on these obligations for federal income tax purposes.

Loan Trends

The following two tables present, for each of the last five quarters, the quarterly average balances by loan type and the percentage of total loans represented by each loan type. For purposes of the following tables only, Home Equity loans have been separately disclosed from Residential Real Estate loans (they are otherwise included in a single category in this Report). Commercial Loans and Commercial Real Estate Loans have been combined into a single category (they are treated as separate categories in other sections of this Report). Over the last five quarters, the average balances for Commercial and Commercial Real Estate, Residential Real Estate and Consumer Loans have steadily increased, although at different rates. Average balances for Home Equity Loans showed a slight contraction during the quarter ended June 30, 2018.

Quarterly Average Loan Balances

(Dollars in Thousands)

	Quarter Ended				
	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017
Commercial and Commercial Real Estate	\$ 576,311	\$ 569,126	\$ 564,073	\$ 561,260	\$ 556,014
Residential Real Estate	616,519	600,076	584,981	563,793	538,884
Home Equity	137,182	139,109	137,975	137,251	138,125
Consumer Loans	696,585	662,929	643,562	630,462	609,520
Total Loans	<u>\$ 2,026,597</u>	<u>\$ 1,971,240</u>	<u>\$ 1,930,591</u>	<u>\$ 1,892,766</u>	<u>\$ 1,842,543</u>

Percentage of Total Quarterly Average Loans

	Quarter Ended				
	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017
Commercial and Commercial Real Estate	28.4%	28.9%	29.2%	29.7%	30.2%
Residential Real Estate	30.5	30.5	30.3	29.8	29.2
Home Equity	6.8	7.1	7.1	7.3	7.5
Consumer Loans	34.3	33.5	33.4	33.2	33.1
Total Loans	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

Maintenance of High Quality in the Loan Portfolio: In the first six months of 2018, there were not any significant fluctuations in the quality of the loan portfolio or any segment thereof. In general, residential real estate loans have historically been underwritten to secondary market standards for prime loans and the Company has not engaged in subprime mortgage lending as a business line. Similarly, high underwriting standards have been applied to commercial and commercial real estate lending operations and generally in the indirect (automobile) lending program as well. Occasionally loans have been made, including indirect loans, to borrowers having FICO scores below the highest credit quality classifications. The Company has also made extensions of credit outstanding to borrowers who have developed credit problems after origination resulting in deterioration of their FICO scores.

Residential Real Estate Loans: In recent years, residential real estate and home equity loans have represented the largest single segment of the total loan portfolio. Gross originations for residential real estate loans (including refinancings of mortgage loans) for the first six months of 2018 were \$67.4 million. Origination totals exceeded the sum of cash flows received from borrowers in the second quarter and the Company has also sold portions of these originations in the secondary market. In the first six months of 2018, the Company sold \$2.1 million, or 3.2%, of originations. In the first six months of 2017, \$7.7 million, or 7.8%, of our originations were sold at a higher premium. The Company expects to continue to sell a portion of mortgage loan originations in upcoming periods, although perhaps a decreasing percentage of overall originations if rates continue their slow rise across longer maturities. At the same time, if prevailing rates rise substantially, there may be a slowdown in loan growth and perhaps decreasing total originations, particularly if the general economy also falters. At some point, it is possible that the Company may experience a decrease in outstanding loan balances in this largest segment

of the loan portfolio. Additionally, if the local economy or real estate market should suffer a major downturn, the quality of the real estate portfolio may also be negatively impacted.

Commercial Loans and Commercial Real Estate Loans: For the first six months of 2018, combined commercial and commercial real estate loan originations continued to increase.

Substantially all commercial and commercial real estate loans in the loan portfolio were extended to businesses or borrowers located in the Company's regional markets. Many of the loans in the commercial portfolio have variable rates tied to prime or FHLB NY rates.

Although demand has been steady, it is possible that demand for commercial and commercial real estate loans may generally weaken in upcoming periods and/or that the quality of this segment of the portfolio may experience stress in upcoming periods. This is particularly likely if the ultimate effect of the Fed's current rate hike program triggers a significant and long-lasting increase in prevailing interest rates for medium- or long-term credits. Generally, the business sector in the Company's service area, appeared to be in reasonably good financial condition at period-end.

Consumer Loans (primarily automobile loans through indirect lending): At June 30, 2018, automobile loans (primarily loans originated through dealerships located in upstate New York and Vermont) represented the second largest category of loans in the loan portfolio, and continued to be a significant component of business comprising almost a third of the total loan portfolio.

New automobile loan volume for the first six months of 2018 remained strong, at \$188.8 million, up from the \$160.0 million originated in the first six months of 2017. As a result of these originations, the quarterly average balance of our consumer loan portfolio at June 30, 2018 grew by \$53 million, or 8.2% from our quarterly average balance at December 31, 2017.

For credit quality purposes, the Company assigns potential automobile loan customers into one of four tiers, ranging from lower to higher quality in terms of anticipated credit risk. The Company's lending staff not only utilizes credit evaluation software tools but also reviews and evaluates each loan individually and believes that the disciplined approach to evaluating risk has contributed to maintaining the strong loan quality in this segment of our portfolio.

Recently, market data has suggested that auto loan demand is weakening somewhat on a national scale, although not in every market area. The average maturity for automobile loan originations has expanded in recent years. If there is some weakening in auto demand in the Company's service area, there may be limited, if any, overall growth in this segment of the loan portfolio in upcoming periods. As in the other segments, any substantial increase in prevailing interest rates in upcoming periods, presumably in response to the Fed's rate rise program, would likely have some negative impact on loan originations. The same also may occur if economic conditions in the Company's indirect loan service area should generally weaken in upcoming periods.

The following table indicates the annualized tax-equivalent yield of each loan category for the past five quarters.

Quarterly Taxable Equivalent Yield on Loans

	Quarter Ended				
	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017
Commercial and Commercial Real Estate	4.47%	4.38%	4.36%	4.32%	4.30%
Residential Real Estate	4.06%	4.09%	3.99%	3.98%	4.03%
Home Equity	3.93%	3.70%	3.57%	3.55%	3.41%
Consumer Loans	3.44%	3.34%	3.29%	3.23%	3.21%
Total Loans	3.96%	3.90%	3.83%	3.80%	3.79%

The average yield in the total loan portfolio during the second quarter of 2018 increased compared to the average yield during the second quarter of 2017. For the quarter, yields on all loan types except residential real estate increased in comparison to the immediately preceding quarter with the largest increase being in the home equity portfolio mainly because many of these loans have a variable rate tied to the prime rate. However, the average rates on newly-originated loans made in all segments of the loan portfolio were at least equal to, and in most cases slightly above, the average rates for comparable loans originated in the year-earlier quarter.

Regardless of the future direction or magnitude of changes in prevailing interest rates, such changes will ultimately have an impact on the yield on the loan portfolio and the impact of such changes which will be dependent on many factors including the makeup of the loan portfolio, the shape of the yield curve, consumer expectations and preferences, and the rate at which the portfolio expands.

Investment Portfolio Trends

The table below presents the changes in the period-end balances for available-for-sale, held-to-maturity and equity securities from December 31, 2017 to June 30, 2018 (in thousands).

The slight reduction in the portfolios on a combined basis during the period reflected our continued strategy in recent years to reallocate earning assets from investment securities to higher yielding loans to maximize earning asset yields.

	(Dollars in Thousands)					
	Fair Value at Period-End			Net Unrealized Gains (Losses) For Period Ended		
	6/30/2018	12/31/2017	Change	6/30/2018	12/31/2017	Change
Securities Available-for-Sale:						
U.S. Agency Securities	\$ 59,615	\$ 59,894	\$ (279)	\$ (584)	\$ (434)	\$ (150)
State and Municipal Obligations	3,383	10,349	(6,966)	6	(2)	8
Mortgage-Backed Securities	261,589	227,596	33,993	(5,524)	(1,481)	(4,043)
Corporate and Other Debt Securities	800	800	—	(200)	(200)	—
Equity Securities ¹	—	1,561	(1,561)	—	441	(441)
Total	\$ 325,387	\$ 300,200	\$ 25,187	\$ (6,302)	\$ (1,676)	\$ (4,626)
Securities Held-to-Maturity:						
State and Municipal Obligations	\$ 239,841	\$ 275,353	\$ (35,512)	\$ (4,175)	\$ (177)	\$ (3,998)
Mortgage-Backed Securities	52,764	60,548	(7,784)	(1,105)	171	(1,276)
Total	\$ 292,605	\$ 335,901	\$ (43,296)	\$ (5,280)	\$ (6)	\$ (5,274)
Equity Securities ¹	\$ 1,802	\$ —	\$ 1,802	\$ 682	\$ —	\$ 682

Footnote:

1. Beginning January 1, 2018, upon adoption of ASU 2016-01, equity securities with readily determinable fair values are reported separately from Available-for-Sale securities.

At June 30, 2018, the Company held no investment securities in the securities portfolios that consisted of or included, directly or indirectly, obligations of foreign governments or governmental agencies or foreign issuers.

In the periods referenced above, Mortgage-Backed Securities consisted solely of mortgage pass-through securities and Collateralized Mortgage Obligations ("CMOs") issued or guaranteed by U.S. federal agencies. Mortgage pass-through securities provide to the investor monthly portions of principal and interest pursuant to the contractual obligations of the underlying mortgages. CMOs are pools of mortgage-backed securities, the repayments on which have generally been separated into two or more components (tranches), where each tranche has a separate estimated life and yield. Our practice has been to purchase only floating rate securities, pass-through securities and CMOs that are issued or guaranteed by U.S. federal agencies, and the tranches of CMOs that we purchase generally are those having shorter average lives and/or durations.

Other-Than-Temporary Impairment

Each quarter all investment securities with a fair value less than amortized cost are evaluated in the available-for-sale portfolio, the held-to-maturity portfolio and the equity securities portfolio, to determine if there exists other-than-temporary impairment for any such security as defined under generally accepted accounting principles. There were no other-than-temporary impairment losses in the first six months of 2018.

Change in Net Unrealized Securities Gains (Losses): Nearly all of the change in our net unrealized gains or losses during recent periods has been attributable to changes in the market yields during the periods in question, with little or no change in the credit-worthiness of the issuers.

Investment Sales, Purchases and Maturities

There were no sales of investment securities within the six month periods ended June 30, 2018 and 2017.

Investment yields in the debt markets experienced some volatility in 2017 and the first six months of 2018. The Company regularly reviews its interest rate risk position along with security holdings to evaluate if market opportunities have arisen that may present an opportunity to reposition certain securities available-for-sale to enhance portfolio performance.

The following table summarizes purchases of investment securities within the available-for-sale and held-to-maturity portfolios for the three and six month periods ended June 30, 2018 and 2017, as well as proceeds from the maturity and calls of investment securities within each portfolio for the respective periods presented:

(In Thousands)	<u>Three Months Ended</u>		<u>Six Months Ended</u>	
<u>Purchases:</u>	<u>6/30/2018</u>	<u>6/30/2017</u>	<u>6/30/2018</u>	<u>6/30/2017</u>
Available-for-Sale Portfolio				
Mortgage-Backed Securities	36,619	—	56,598	12,324
Total Purchases	<u>\$ 36,619</u>	<u>\$ —</u>	<u>\$ 56,598</u>	<u>\$ 12,324</u>
<u>Maturities & Calls</u>	<u>\$ 15,655</u>	<u>\$ 20,041</u>	<u>\$ 25,035</u>	<u>\$ 31,867</u>
	<u>Three Months Ended</u>		<u>Six Months Ended</u>	
<u>Purchases:</u>	<u>6/30/2018</u>	<u>6/30/2017</u>	<u>6/30/2018</u>	<u>6/30/2017</u>
Held-to-Maturity Portfolio				
State and Municipal Obligations	<u>\$ 1,184</u>	<u>\$ 32,879</u>	<u>\$ 2,105</u>	<u>\$ 33,435</u>
<u>Maturities & Calls</u>	<u>\$ 33,157</u>	<u>\$ 19,788</u>	<u>\$ 39,616</u>	<u>\$ 30,262</u>

Asset Quality

The following table presents information related to our allowance and provision for loan losses for the past five quarters.

Summary of the Allowance and Provision for Loan Losses

(Dollars in Thousands, Loans Stated Net of Unearned Income)

	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017
<u>Loan Balances:</u>					
Period-End Loans	\$ 2,057,862	\$ 1,993,037	\$ 1,950,770	\$ 1,908,799	\$ 1,878,632
Average Loans, Year-to-Date	1,999,072	1,971,240	1,862,247	1,839,216	1,811,998
Average Loans, Quarter-to-Date	2,026,598	1,971,240	1,930,590	1,892,766	1,842,543
Period-End Assets	2,845,171	2,826,687	2,760,465	2,744,462	2,721,721
<u>Allowance for Loan Losses, Year-to-Date:</u>					
Allowance for Loan Losses, Beginning of Period	\$ 18,586	\$ 18,586	\$ 17,012	\$ 17,012	\$ 17,012
Provision for Loan Losses, YTD	1,375	746	2,736	1,580	780
Loans Charged-off, YTD	(634)	(370)	(1,559)	(1,197)	(574)
Recoveries of Loans Previously Charged-off	313	95	397	300	224
Net Charge-offs, YTD	(321)	(275)	(1,162)	(897)	(350)
Allowance for Loan Losses, End of Period	\$ 19,640	\$ 19,057	\$ 18,586	\$ 17,695	\$ 17,442
<u>Allowance for Loan Losses, Quarter-to-Date:</u>					
Allowance for Loan Losses, Beginning of Period	\$ 19,057	\$ 18,586	\$ 17,695	\$ 17,442	\$ 17,216
Provision for Loan Losses, QTD	629	746	1,157	800	422
Loans Charged-off, QTD	(264)	(370)	(363)	(622)	(305)
Recoveries of Loans Previously Charged-off	218	95	97	75	109
Net Charge-offs, QTD	(46)	(275)	(266)	(547)	(196)
Allowance for Loan Losses, End of Period	\$ 19,640	\$ 19,057	\$ 18,586	\$ 17,695	\$ 17,442
<u>Nonperforming Assets, at Period-End:</u>					
Nonaccrual Loans	\$ 3,880	\$ 4,470	\$ 5,526	\$ 5,482	\$ 5,222
Loans Past Due 90 or More Days and Still Accruing Interest	170	—	319	967	1,821
Restructured and in Compliance with Modified Terms	106	100	105	828	101
Total Nonperforming Loans	4,156	4,570	5,950	7,277	7,144
Repossessed Assets	76	120	109	62	90
Other Real Estate Owned	1,412	1,525	1,738	1,651	1,523
Total Nonperforming Assets	\$ 5,644	\$ 6,215	\$ 7,797	\$ 8,990	\$ 8,757
<u>Asset Quality Ratios:</u>					
Allowance to Nonperforming Loans	472.57%	417.00%	312.37%	243.16%	244.15%
Allowance to Period-End Loans	0.95%	0.96%	0.95%	0.93%	0.93%
Provision to Average Loans (Quarter) ⁽¹⁾	0.12%	0.15%	0.24%	0.17%	0.09%
Provision to Average Loans (YTD) ⁽¹⁾	0.14%	0.15%	0.15%	0.11%	0.09%
Net Charge-offs to Average Loans (Quarter) ⁽¹⁾	0.01%	0.06%	0.05%	0.11%	0.04%
Net Charge-offs to Average Loans (YTD) ⁽¹⁾	0.03%	0.06%	0.06%	0.07%	0.04%
Nonperforming Loans to Total Loans	0.20%	0.23%	0.31%	0.38%	0.38%
Nonperforming Assets to Total Assets	0.20%	0.22%	0.28%	0.33%	0.32%

⁽¹⁾ Annualized

Provision for Loan Losses

Through the provision for loan losses, an allowance is maintained that reflects the Company's best estimate of probable incurred loan losses related to specifically identified impaired loans as well as the inherent risk of loss related to the remaining portfolio. Loan charge-offs are recorded to this allowance when loans are deemed uncollectible, in whole or in part. As loans become past due, consideration is given to the status of those loans and whether or not to classify them as nonaccrual loans. Any loans listed as "past due 90 or more days and still accruing interest" have been evaluated and the borrowers have been deemed to have the capacity to repay all principal and interest and, therefore, have not been classified as nonaccrual.

In the second quarter of 2018, the Company made a \$629 thousand provision for loan losses, compared to a provision of \$422 thousand for the second quarter of 2017 and a provision of \$746 thousand for the first quarter of 2018. The provision expense was largely driven by growth in outstanding loan balances. Additional items impacting the provision included changes to qualitative factors

that accurately reflect management's view on current economic and market risks, and net charge-offs of \$46 thousand. See Note 3 to the unaudited interim consolidated financial statements for a discussion on how the Company classifies credit quality indicators as well as the balance in each category.

The ratio of the allowance for loan losses to total loans was 0.95% at June 30, 2018, was unchanged from 0.95% at December 31, 2017 and an increase of 2 basis point from 0.93% at June 30, 2017.

The accounting policy relating to the allowance for loan losses is considered to be a critical accounting policy, given the uncertainty involved in evaluating the level of the allowance required to cover credit losses inherent in the loan portfolio, and the material effect that such judgments may have on our results of operations. The process for determining the provision for loan losses is described in Note 3 to the unaudited interim consolidated financial statements.

Risk Elements

Nonperforming assets at June 30, 2018 amounted to \$5.6 million, a decrease of \$2.2 million, from the December 31, 2017 total and a decrease of \$3.1 million, from the year earlier total. In all recent periods, ratios of nonperforming assets to total assets have remained below the average ratios for the peer group, although the average peer group ratios have improved dramatically in recent years. (See page 39 for a discussion of the peer group.) At March 31, 2018, the ratio of loans past due 90 or more days plus nonaccrual loans plus other real estate owned to total assets was 0.22%, well below the 0.61% ratio of the peer group at such date (the latest date for which peer group information is available). At June 30, 2018 the ratio decreased slightly to 0.20%, however, this is still far below the most recent ratio for the peer group.

The following table presents the balance of other non-current loans at period-end as to which interest income was being accrued (i.e. loans 30 to 89 days past due, as defined in bank regulatory guidelines). These non-current loans are not included in nonperforming assets, but entail heightened risk.

	6/30/2018	12/31/2017	6/30/2017
Commercial Loans	\$ 18	\$ 158	\$ 176
Commercial Real Estate Loans	—	—	—
Residential Real Estate Loans	2,014	1,696	2,228
Consumer Loans - Primarily Indirect Automobile	5,440	7,064	5,367
Total Loans Past Due 30-89 Days and Accruing Interest	\$ 7,472	\$ 8,918	\$ 7,771

At June 30, 2018, the loans in this category totaled \$7.5 million, a decrease of \$1.4 million, or 16.2%, from the \$8.9 million of such loans at December 31, 2017. The June 30, 2018 total of non-current loans equaled 0.36% of loans then outstanding, whereas the year-end 2017 total equaled 0.46% of loans then outstanding. The decrease from December 31, 2017 is primarily attributable to a decrease in delinquent automobile loans, which were at a seasonally elevated level at year-end 2017 but declined (improved) during the first six months of 2018.

The number and dollar amount of performing loans that demonstrate characteristics of potential weakness from time-to-time (potential problem loans) typically is a very small percentage of our portfolio. See the table of Credit Quality Indicators in Note 3 to the unaudited interim consolidated financial statements. The Company considers all performing commercial and commercial real estate loans classified as substandard or lower (as reported in Note 3) to be potential problem loans. The dollar amount of such loans at June 30, 2018 was \$29.75 million, up slightly from the dollar amount of such loans at December 31, 2017, when the amount was \$29.66 million. These loans will continue to be closely monitored and the Company expects to collect all payments of contractual interest and principal in full on these classified loans. Total nonperforming assets at period-end decreased by \$3.1 million, or 35.5% from June 30, 2017.

The economy in the Company's market area has been relatively strong in recent years, but any general weakening of the U.S. economy in upcoming periods would likely have an adverse effect on the economy in this market area as well, and ultimately on the loan portfolio, particularly the commercial and commercial real estate portfolio.

As of June 30, 2018, the Company held for sale three residential real estate properties and two commercial properties in other real estate owned. The Company does not expect to acquire a significant number of other real estate properties in the near term as a result of payment defaults or the foreclosure process.

The Company does not currently anticipate significant increases in nonperforming assets, other non-current loans as to which interest income is still being accrued or potential problem loans, but can give no assurances in this regard.

CAPITAL RESOURCES

Regulatory Capital Standards

Capital Adequacy Requirements. An important area of banking regulation is the federal banking system's promulgation and enforcement of minimum capitalization standards for banks and bank holding companies.

As reported in the Regulatory Reform section above, on May 24, 2018 the EGRRCPA financial reform bill was signed into law. This new law includes provisions requiring the federal bank regulatory agencies to establish a community bank leverage ratio of between 8% and 10%, calculated by dividing tangible equity capital by average total consolidated assets of "qualifying community banks" that meet certain requirements to be set by those regulatory agencies. A qualifying community bank is a depository institution or bank holding company with less than \$10 billion in total assets, such as Arrow. If a qualifying community bank exceeds the community bank leverage ratio, it will be deemed to have met all applicable capital and leverage requirements, including the generally applicable leverage capital requirements and risk-based capital requirements and the "well capitalized" requirement under the federal "prompt corrective action" capital standards. Upon its implementation, this new community bank leverage ratio standard is expected to reduce the burden of compliance with regard to regulatory capital adequacy. However, the implementation of this standard will be subject to the notice and comment procedures of rulemaking, and EGRRCPA does not impose a deadline for this rulemaking. Until this rulemaking is finalized, the following capital adequacy requirements, as implemented under Dodd Frank, are in effect.

The following is a summary of certain definitions of capital under the various capital measures in the capital rules under Dodd-Frank:

Common Equity Tier 1 Capital (CET1): Equals the sum of common stock instruments and related surplus (net of treasury stock), retained earnings, accumulated other comprehensive income (AOCI), and qualifying minority interests, minus applicable regulatory adjustments and deductions. Such deductions will include AOCI, if the organization has exercised its irrevocable option not to include AOCI in capital (we made such an election). Mortgage-servicing assets, deferred tax assets, and investments in financial institutions are limited to 15 percent of CET1 in the aggregate and 10 percent of CET1 for each such item individually.

Additional Tier 1 Capital: Equals the sum of noncumulative perpetual preferred stock, tier 1 minority interests, grandfathered TRUPs, and Troubled Asset Relief Program instruments, minus applicable regulatory adjustments and deductions.

Tier 2 Capital: Equals the sum of subordinated debt and preferred stock, total capital minority interests not included in Tier 1, and allowance for loan and lease losses (not exceeding 1.25% of risk-weighted assets) minus applicable regulatory adjustments and deductions.

The following table presents the current minimum regulatory capital ratios applicable to our holding company and banks under the revised capital rules (as of January 1, 2018), as well as the increased minimum capital ratios that will apply at certain dates over the remaining portion of the phase-in period (i.e., as of January 1, 2019):

<u>Capital Ratio</u>	<u>Year, as of January 1</u>	
	<u>2018</u>	<u>2019</u>
Minimum CET1 Ratio	4.500%	4.500%
Capital Conservation Buffer ("Buffer")	1.875%	2.500%
Minimum CET1 Ratio Plus Buffer	6.375%	7.000%
Minimum Tier 1 Risk-Based Capital Ratio	6.000%	6.000%
Minimum Tier 1 Risk-Based Capital Ratio Plus Buffer	7.875%	8.500%
Minimum Total Risk-Based Capital Ratio	8.000%	8.000%
Minimum Total Risk-Based Capital Ratio Plus Buffer	9.875%	10.500%
Minimum Leverage Ratio	4.000%	4.000%

These minimum capital ratios, especially the CET1 ratio (4.5%) and the enhanced Tier 1 risk-based capital ratio (6.0%), represent a heightened and more restrictive capital regime than institutions like Arrow previously had to meet under the prior capital rules.

At June 30, 2018, Arrow's holding company and both subsidiary banks exceeded by a substantial amount each of the applicable minimum capital ratios established under the revised capital rules, including the minimum CET1 Ratio, the minimum Tier 1 Risk-Based Capital Ratio, the minimum Total Risk-Based Capital Ratio, and the minimum Leverage Ratio, including in the case of each risk-based ratio, the phased-in portion of the capital buffer.

Prompt Corrective Action Capital Classifications. Under applicable banking law, federal banking regulators are required to take prompt corrective action with respect to depository institutions that do not meet certain minimum capital requirements. For these purposes, the regulators have established five capital classifications for banking institutions, ranging from the highest category of "well-capitalized" to the lowest category of "critically under-capitalized". Under the current capital classifications, a banking institution is considered "well-capitalized" if it meets the following capitalization standards on the date of measurement: a CET1 risk-based capital ratio of 6.50% or greater, a Tier 1 risk-based capital ratio of 8.00% or greater, a total risk-based capital ratio of 10.00% or greater, and a Tier 1 leverage ratio of 5.00% or greater, provided the institution is not subject to any regulatory order or written directive regarding

capital maintenance. Federal banking law also ties the ability of banking organizations to engage in certain types of activities and to utilize certain procedures to such organizations' continuing to qualify for inclusion in one of the two highest ranking of these capitalization categories, i.e., as "well-capitalized" or "adequately capitalized."

Current Capital Ratios: The table below sets forth the regulatory capital ratios of Arrow's holding company and two subsidiary banks, Glens Falls National and Saratoga National, under the current capital rules, as of June 30, 2018:

	Common Equity Tier 1 Capital Ratio	Tier 1 Risk-Based Capital Ratio	Total Risk-Based Capital Ratio	Tier 1 Leverage Ratio
Arrow Financial Corporation	13.01%	14.04%	15.06%	9.65%
Glens Falls National Bank & Trust Co.	13.73%	13.73%	14.75%	9.26%
Saratoga National Bank & Trust Co.	12.76%	12.76%	13.77%	9.29%
Current Regulatory Minimum (2018)	6.375% ⁽¹⁾	7.875% ⁽¹⁾	9.875% ⁽¹⁾	4.000%
FDICIA's Prompt Corrective Action - "Well-Capitalized" Standard (2018)	6.500%	8.000%	10.000%	5.000%
Final Regulatory Minimum (1/1/2019)	7.000% ⁽²⁾	8.500% ⁽²⁾	10.500% ⁽²⁾	4.000%

⁽¹⁾ Including currently phased-in 1.875% capital conservation buffer

⁽²⁾ Including the fully phased-in 2.50 % capital conservation buffer

At June 30, 2018, Arrow's holding company and both banks exceeded the minimum regulatory capital ratios established under the current capital rules and each also qualified as "well-capitalized", the highest category in the new capital classification scheme established by federal bank regulatory agencies under the "prompt corrective action" standards, as described above.

Capital Components; Stock Repurchases; Dividends

Stockholders' Equity: Stockholders' equity was \$259.5 million at June 30, 2018, an increase of \$9.9 million, or 4.0%, from December 31, 2017. This increase was the result of net income for the period of \$18.3 million, and increases in book equity from various stock-based compensation and dividend reinvestment plans of \$3.1 million. These equity enhancing developments during the quarter were offset by a decrease related to other comprehensive loss of \$3.0 million, cash dividends of \$7.0 million, and purchases of the Company's own common stock of \$1.4 million under the Board-approved stock repurchase program described below.

Trust Preferred Securities: In each of 2003 and 2004, the Company issued \$10 million of trust preferred securities (TRUPs) in a private placement. Under the Federal Reserve Board's regulatory capital rules then in effect, TRUPs proceeds typically qualified as Tier 1 capital for bank holding companies such as ours, but only in amounts up to 25% of Tier 1 capital, net of goodwill less any associated deferred tax liability. Under the Dodd-Frank Act, any trust preferred securities that Arrow might issue on or after the grandfathering date set forth in Dodd-Frank (May 19, 2010) would not qualify as Tier 1 capital under bank regulatory capital guidelines. TRUPs outstanding prior to the grandfathering cutoff date set forth in Dodd-Frank (May 19, 2010) would continue to qualify as Tier 1 capital until maturity or redemption, subject to limitations. Thus, Arrow's outstanding TRUPs continue to qualify as Tier 1 regulatory capital, subject to such limitations.

Stock Repurchase Program: In October 2017, the Board of Directors approved a \$5.0 million stock repurchase program, effective January 1, 2018 (the 2018 stock repurchase program). Management is authorized, in its discretion, to repurchase from time-to-time during 2018, in the open market or in privately negotiated transactions, up to \$5 million of Arrow common stock, to the extent management believes purchase of the Company's stock is an attractive use of available capital and in the best interests of stockholders. The 2018 stock repurchase program replaced a similar repurchase program which was in effect during 2017 (the 2017 stock repurchase program), which also authorized the repurchase of up to \$5.0 million of Arrow common stock. As of June 30, 2018 approximately \$389 thousand had been used under the 2018 stock repurchase program to repurchase Arrow shares. This total does not include repurchases of Arrow's Common Stock other than through its repurchase program, i.e., repurchases of Arrow shares on the market utilizing funds accumulated under Arrow's Dividend Reinvestment Plan and the surrender or deemed surrender of Arrow stock to the Company in connection with employees' stock-for-stock exercises of compensatory stock options to buy Arrow stock.

Dividends: The Company's common stock is traded on NasdaqGS® under the symbol AROW. The high and low stock prices for the past five quarters listed below represent actual sales transactions, as reported by NASDAQ. On July 25, 2018, the Board of Directors declared a 2018 third quarter cash dividend of \$0.26 payable on September 14, 2018. Per share amounts in the following table have been restated for our September 28, 2017 3% stock dividend.

	Market Price		Cash
	Low	High	Dividends Declared
<u>2017</u>			
First Quarter	\$ 31.80	\$ 39.76	\$ 0.243
Second Quarter	30.15	34.95	0.243
Third Quarter	29.81	35.00	0.243
Fourth Quarter	33.50	38.60	0.250
<u>2018</u>			
First Quarter	\$ 30.81	\$ 35.57	\$ 0.250
Second Quarter	32.85	38.35	0.250

	Quarter Ended June 30,	
	2018	2017
Cash Dividends Per Share	\$ 0.250	\$ 0.243
Diluted Earnings Per Share	0.69	0.52
Dividend Payout Ratio	36.23%	46.73%
Total Equity (in thousands)	259,488	\$ 240,752
Shares Issued and Outstanding (in thousands)	14,004	13,900
Book Value Per Share	\$ 18.53	\$ 17.32
Intangible Assets (in thousands)	23,933	24,355
Tangible Book Value Per Share	\$ 16.82	\$ 15.57

LIQUIDITY

The objective of effective liquidity management is to ensure that the Company has the ability to raise cash when needed at a reasonable cost. This includes the capability of meeting expected and unexpected obligations to the Company's customers at any time. Given the uncertain nature of customer demands and the need to maximize earnings, the Company must have available reasonably priced sources of funds, both on- and off-balance sheet, that can be accessed quickly in time of need.

The primary sources of available liquidity are overnight investments in federal funds sold, interest bearing bank balances at the Federal Reserve Bank, and cash flow from investment securities and loans. Certain investment securities are selected at purchase as available-for-sale based on their marketability and collateral value, as well as their yield and maturity. The securities available-for-sale portfolio was \$325.4 million at June 30, 2018, an increase of \$25.2 million, from the year-end 2017 level. Due to the potential for volatility in market values, the Company may not always be able to sell securities on short notice at their carrying value, even to provide needed liquidity.

In addition to liquidity from short-term investments, investment securities and loans, the Company has supplemented available operating liquidity with additional off-balance sheet sources such as federal funds lines of credit with correspondent banks and credit lines with the FHLBNY. The federal funds line of credit is with one correspondent bank totaling \$15 million which was not draw on during the three months ended June 30, 2018.

To support the borrowing relationship with the FHLBNY, the Company has pledged collateral, including residential mortgage and home equity loans. At June 30, 2018, the Company had outstanding collateral obligations with the FHLBNY of \$266 million; as of that date, the unused borrowing capacity at the FHLBNY was approximately \$263 million. Brokered deposits have also been identified as an available source of funding accessible in a relatively short time period. At June 30, 2018, the balance of outstanding brokered deposits totaled \$45 million. Also, the Company's two bank subsidiaries have each established a borrowing facility with the Federal Reserve Bank of New York, pledging certain consumer loans as collateral for potential "discount window" advances, which are maintained for contingency liquidity purposes. At June 30, 2018, the amount available under this facility was approximately \$456 million, and there were no advances then outstanding.

The Company measures and monitors basic liquidity as a ratio of liquid assets to total short-term liabilities, both with and without the availability of borrowing arrangements. Based on the level of overnight funds investments, available liquidity from the investment securities portfolio, cash flows from the loan portfolio, the stable core deposit base and the significant borrowing capacity, the Company believes that the available liquidity is sufficient to meet all funding needs that may arise in connection with any reasonably likely events or occurrences. At June 30, 2018, the basic liquidity ratio, including the FHLBNY collateralized borrowing capacity, was 9.0% of total assets, or \$142 million in excess of the internally-set minimum target ratio of 4%.

Because of the consistently favorable credit quality and strong balance sheet, the Company did not experience any significant liquidity constraints in the three-month period ended June 30, 2018 and did not experience any such constraints in recent prior years, back to and including the financial crisis years. The Company has not at any time during such period been forced to pay above-market rates to obtain retail deposits or other funds from any source.

RESULTS OF OPERATIONS
Three Months Ended June 30, 2018 Compared With
Three Months Ended June 30, 2017

Summary of Earnings Performance

(Dollars in Thousands, Except Per Share Amounts)

	Quarter Ended		Change	% Change
	6/30/2018	6/30/2017		
Net Income	\$ 9,730	\$ 7,208	\$ 2,522	35.0%
Diluted Earnings Per Share	0.69	0.52	0.17	32.7%
Return on Average Assets	1.38%	1.08%	0.30%	27.8%
Return on Average Equity	15.22%	12.08%	3.14%	26.0%

Net income was \$9.7 million and diluted earnings per share (EPS) of \$.69 for the second quarter of 2018, compared to net income of \$7.2 million and diluted EPS of \$.52 for the second quarter of 2017. Return on average assets (ROA) for the second quarter of 2018 was 1.38%, up 30 basis points from 1.08% in the second quarter of 2017. In addition, return on average equity (ROE) increased to 15.22% for the second quarter of 2018, up 314 basis points from 12.08% in the second quarter of 2017.

The following narrative discusses the quarter-to-quarter changes in net interest income, noninterest income, noninterest expense and income taxes.

Net Interest Income

Summary of Net Interest Income

(Dollars in Thousands)

	Quarter Ended		Change	% Change
	6/30/2018	6/30/2017		
Interest and Dividend Income	\$ 23,590	\$ 20,926	\$ 2,664	12.7 %
Tax-Equivalent Adjustment	468	949	(481)	(50.7)%
Interest and Dividend Income (Tax-equivalent) ⁽²⁾	24,058	21,875	2,183	10.0 %
Interest Expense	2,628	1,699	929	54.7 %
Net Interest Income	20,962	19,227	1,735	9.0 %
Net Interest Income (Tax-equivalent) ⁽²⁾	21,430	20,176	1,254	6.2 %
Average Earning Assets ⁽¹⁾	2,703,054	2,551,593	151,461	5.9 %
Average Interest-Bearing Liabilities	2,100,085	2,005,421	94,664	4.7 %
Yield on Earning Assets ⁽¹⁾	3.50%	3.29%	0.21 %	6.4 %
Yield on Earning Assets (Tax-equivalent) ^{(1) (2)}	3.57	3.44	0.13 %	3.8 %
Cost of Interest-Bearing Liabilities	0.50	0.34	0.16 %	47.1 %
Net Interest Spread	3.00	2.95	0.05 %	1.7 %
Net Interest Spread (Tax-equivalent) ⁽²⁾	3.07	3.10	(0.03)%	(1.0)%
Net Interest Margin	3.11	3.02	0.09 %	3.0 %
Net Interest Margin (Tax-equivalent) ⁽²⁾	3.18	3.17	0.01 %	0.3 %

⁽¹⁾ Includes Nonaccrual Loans.

⁽²⁾ See "Use of Non-GAAP Financial Measures" on page 40; Reported on a fully taxable basis using a marginal federal tax rate of 35% for 2017, 21% for 2018.

Net interest income for the just completed quarter, on a GAAP basis, increased by \$1.7 million, or 9.0%, from the second quarter of 2017, due, in part, to an increase in average earning assets of 5.9%, as compared to the 4.7% increase in average interest-bearing liabilities. In addition, our net interest margin increased 9 basis points in the second quarter of 2018 to 3.11%, from 3.02% during the second quarter of 2017. The composition of average earning assets during the 2018 period includes more relatively higher yielding loans and less relatively lower yielding investment securities due to the strategy of not reinvesting a portion of the maturing securities. Earning assets also achieved higher yields because market interest rates were higher in the 2018 period. As a result of the reallocation of earning assets plus the higher rate environment, the yield on average earning assets increased 21 basis points in the current year period. The cost of interest-bearing deposits increased 16 basis points quarter over quarter due to certain rate-sensitive deposit customers reallocating their deposit investments to higher yielding money market savings products and time deposits, in addition to the higher cost of brokered deposits and overnight borrowings from the FHLB NY in the 2018 quarter. The Company defines net interest margin as net interest income divided by average earning assets, annualized. The Company defines tax-equivalent net interest margin as net interest income on a tax-equivalent basis divided by average earning assets, annualized. Tax-equivalent net interest margin, as well as tax-equivalent net interest

income, from which the margin is derived, are non-GAAP financial measures. (See the discussion under "Use of Non-GAAP Financial Measures," on page 40, and the tabular information and notes on pages 41 through 44, regarding the Company's reasons for using these and other non-GAAP measures and the reconciliation thereof to comparable GAAP measures.) Further detailed information is presented above under the section entitled "Average Consolidated Balance Sheets and Net Interest Income Analysis." The impact of recent interest rate changes on our deposit and loan portfolios are discussed above in this Report under the sections entitled "Deposit Trends" and "Loan Trends."

As discussed previously under the heading "Asset Quality" beginning on page 55, the provision for loan losses for the second quarter of 2018 was \$629 thousand, compared to a provision of \$422 thousand for the 2017 quarter.

Noninterest Income

Summary of Noninterest Income

(Dollars in Thousands)

	Quarter Ended		Change	% Change
	6/30/2018	6/30/2017		
Income From Fiduciary Activities	\$ 2,647	\$ 2,150	\$ 497	23.1 %
Fees for Other Services to Customers	2,570	2,413	157	6.5 %
Insurance Commissions	2,192	2,115	77	3.6 %
Net Gain on Equity Securities	223	—	223	100.0 %
Net Gain on the Sale of Loans	23	204	(181)	(88.7)%
Other Operating Income	256	175	81	46.3 %
Total Noninterest Income	<u>\$ 7,911</u>	<u>\$ 7,057</u>	<u>\$ 854</u>	12.1 %

Total noninterest income in the current quarter was \$7.9 million, up \$854 thousand from total noninterest income for the second quarter of 2017. Income from fiduciary activities for the second quarter of 2018 increased by \$497 thousand, or 23.1% over the second quarter of 2017 due to the closing of a large estate and favorable equity market returns.

Fees for other services to customers increased to \$2.6 million for the second quarter of 2018. In addition to service charge income on deposits, this category also includes debit card interchange income, revenue related to the sale of mutual funds to customers by third party providers, and servicing income on sold loans. Debit card usage by customers continues to grow, which has had (and if such growth persists, will continue to have) a positive impact on debit card fee income. Insurance commissions increased to \$2.2 million for the second quarter of 2018 from the \$2.1 million level for the second quarter of 2017.

The \$223 thousand increase in net gain on equity securities between the periods was due to the change in the fair value of these marketable equity securities as compared to the second quarter of 2017 pursuant to Accounting Standards Update 2016-01.

Net gain on the sale of loans in the second quarter of 2018 decreased by \$181 thousand from the second quarter of 2017. This decrease was a result of a decrease in loan sale volume. See page 50 for the discussion of loan sales.

Noninterest Expense

Summary of Noninterest Expense

(Dollars in Thousands)

	Quarter Ended		Change	% Change
	6/30/2018	6/30/2017		
Salaries and Employee Benefits	\$ 9,812	9,211	\$ 601	6.5 %
Occupancy Expense of Premises, Net	1,270	1,269	1	0.1 %
Furniture and Equipment Expense	1,150	1,225	(75)	(6.1)%
FDIC and FICO Assessments	223	228	(5)	(2.2)%
Amortization	66	70	(4)	(5.7)%
Other Operating Expense	3,671	3,634	37	1.0 %
Total Noninterest Expense	<u>\$ 16,192</u>	<u>\$ 15,637</u>	<u>\$ 555</u>	3.5 %
Efficiency Ratio	55.38%	57.16%	(1.78)%	(3.1)%

Noninterest expense for the second quarter of 2018 was \$16.2 million, an increase of \$555 thousand, or 3.5%, from the expense for the second quarter of 2017. The increase in salaries and benefits quarter-over-quarter was due to salary increases and increased benefits costs. The change in the other noninterest expense categories was either negative or were small increases due to the ongoing expense control program. This favorable quarter-over-quarter change in total noninterest expense was reflected in the efficiency ratio, which was 55.38% for the second quarter of 2018, down 178 basis points from our ratio for the comparable 2017 quarter. The efficiency ratio (a ratio where lower is better), is a commonly used non-GAAP financial measure in the banking industry that purports to reflect an institution's operating efficiency. The Company calculates the efficiency ratio as the ratio of noninterest expense (excluding, under the Company's definition, intangible asset amortization) to (i) net interest income (on a tax-equivalent basis) plus (ii) noninterest income (excluding net securities gains or losses). See the discussion on this non-GAAP measure on page 40 of this Report under the heading "Use of Non-GAAP Financial Measures" and the related tabular information and notes on pages 41 through 44 of this Report. The efficiency ratio included by the Federal Reserve Board in its "Peer Holding Company Performance Reports" excludes net securities gains or losses from

the denominator (as does the Company's calculation), but unlike the Company's ratio does not exclude intangible asset amortization from the numerator. The Company's efficiency ratios in recent periods have generally compared favorably to the ratios of the peer group as disclosed in the Fed's Performance Reports (see page 39 for a discussion of the peer group). For the three-month period ended March 31, 2018 (the most recent reporting period for which peer group information is available), the peer group's efficiency ratio was 66.16%, and the Company's ratio was 57.23% (not adjusted for the definitional difference).

Salaries and employee benefits expense increased by 6.5% in the second quarter of 2018 compared to the second quarter of 2017 due to normal salary increases and increases in pension expense. Pursuant to ASU 2017-07 Compensation-Retirement Benefits, Arrow has reclassified the non-service cost components of retirement plans out of salaries and benefits and into other operating expenses.

Income Taxes

Summary of Income Taxes

(Dollars in Thousands)

	Quarter Ended		Change	% Change
	6/30/2018	6/30/2017		
Provision for Income Taxes	\$ 2,322	\$ 3,017	\$ (695)	(23.0)%
Effective Tax Rate	19.3%	29.5%	(10.2)	(34.6)

The effective tax rate for the 2018 quarter reflects the impact of the Tax Act which decreased the federal statutory income tax rate from 35% in 2017 to 21% in 2018.

RESULTS OF OPERATIONS
Six Months Ended June 30, 2018 Compared With
Six Months Ended June 30, 2017

Summary of Earnings Performance

(Dollars in Thousands, Except Per Share Amounts)

	Six Months Ended		Change	% Change
	6/30/2018	6/30/2017		
Net Income	\$ 18,261	\$ 13,839	\$ 4,422	32.0%
Diluted Earnings Per Share	1.30	0.99	0.31	31.3
Return on Average Assets	1.32%	1.05%	0.27%	25.7
Return on Average Equity	14.51%	11.76%	2.75%	23.4

Net income was \$18.3 million and diluted earnings per share (EPS) of \$1.30 for the first six months of 2018, compared to net income of \$13.8 million and diluted EPS of \$0.99 for the first six months of 2017. Return on average assets (ROA) for the first six months of 2018 was 1.32%, an increase of 25.7% from 1.05% for the first six months of 2017. In addition, return on average equity (ROE) increased to 14.51% for the first six months of 2018 from 11.76% for the first six months of 2017.

The following narrative discusses the period-to-period changes in net interest income, noninterest income, noninterest expense and income taxes.

Net Interest Income

Summary of Net Interest Income

(Taxable Equivalent Basis, Dollars in Thousands)

	Six Months Ended		Change	% Change
	6/30/2018	6/30/2017		
Interest and Dividend Income	\$ 46,008	\$ 40,923	\$ 5,085	12.4 %
Tax-Equivalent Adjustment	959	1,897	(938)	(49.4)%
Interest and Dividend Income (Tax-equivalent) ⁽²⁾	46,967	42,820	4,147	9.7 %
Interest Expense	4,645	3,235	1,410	43.6 %
Net Interest Income	41,364	37,688	3,676	9.8 %
Net Interest Income (Tax-equivalent) ⁽²⁾	42,323	39,585	2,738	6.9 %
Average Earning Assets ⁽¹⁾	2,672,527	2,526,084	146,443	5.8 %
Average Interest-Bearing Liabilities	2,075,510	1,991,601	83,909	4.2 %
Yield on Earning Assets ⁽¹⁾	3.47%	3.27%	0.20%	6.1 %
Yield on Earning Assets (Tax-equivalent) ^{(1) (2)}	3.54	3.42	0.12%	3.5 %
Cost of Interest-Bearing Liabilities	0.45	0.33	0.12%	36.4 %
Net Interest Spread	3.02	2.94	0.08%	2.7 %
Net Interest Spread (Tax-equivalent) ⁽²⁾	3.09	3.09	—%	— %
Net Interest Margin	3.12	3.01	0.11%	3.7 %
Net Interest Margin (Tax-equivalent) ⁽²⁾	3.19	3.16	0.03%	0.9 %

⁽¹⁾ Includes Nonaccrual Loans

⁽²⁾ See "Use of Non-GAAP Financial Measures" on page 40; Reported on a fully taxable basis using a marginal federal tax rate of 35% for 2017, 21% for 2018.

Net interest income on a GAAP basis, for the six-month period ended June 30, 2018 increased by \$3.7 million, or 9.8%, over the 2017 amount due to the positive impact of a 5.8% increase in the level of our average earning assets as compared to the 4.2% increase in average interest-bearing liabilities, and due to an increase in net interest margin for the period. For the first six months of 2018, net interest margin increased to 3.12% from the 3.01% for the first six months of 2017. The composition of average earning assets during the 2018 period includes more relatively higher yielding loans and less relatively lower yielding investment securities due to the strategy of not reinvesting a portion of the maturing securities. In addition, earning assets achieved higher yields because market interest rates were higher in the 2018 period. As a result of the reallocation of earning assets plus the higher rate environment, the yield on average earning assets increased 20 basis points in the current year period. The cost of interest-bearing deposits increased 12 basis points in the 2018 period due to certain rate-sensitive deposit customers reallocating their deposit investments to higher yielding money market savings products and time deposits, in addition to the higher cost of brokered deposits and overnight borrowings from the FHLBNY in the 2018 period. The Company defines net interest margin as net interest income divided by average earning assets, annualized. The Company

defines tax-equivalent net interest margin as net interest income on a tax-equivalent basis divided by average earning assets, annualized. Tax-equivalent net interest margin, as well as tax-equivalent net interest income, from which the margin is derived, are non-GAAP financial measures. (See the discussion under "Use of Non-GAAP Financial Measures," on page 40, and the tabular information and notes on pages 41 through 44, regarding net interest margin and tax-equivalent net interest income, which are commonly used non-GAAP financial measures.) Further detailed information is presented above under the section entitled "Average Consolidated Balance Sheets and Net Interest Income Analysis." The impact of recent interest rate changes on Arrow's deposit and loan portfolios are discussed above in this Report under the sections entitled "Deposit Trends" and "Loan Trends."

As discussed previously under the heading "Asset Quality" beginning on page 55, the provision for loan losses for the first six months of 2018 was \$1.38 million, compared to a provision of \$780 thousand for the 2017 period.

Noninterest Income

Summary of Noninterest Income

(Dollars in Thousands)

	Six Months Ended		Change	% Change
	6/30/2018	6/30/2017		
Income From Fiduciary Activities	4,844	4,168	\$ 676	16.2%
Fees for Other Services to Customers	4,950	4,670	280	6.0
Insurance Commissions	4,095	4,313	(218)	(5.1)
Net Gain on Equity Securities	241	—	241	100.0
Net Gain on the Sale of Loans	61	250	(189)	(75.6)
Other Operating Income	609	351	258	73.5
Total Noninterest Income	<u>\$ 14,800</u>	<u>\$ 13,752</u>	<u>\$ 1,048</u>	7.6%

Total noninterest income in the first six months of 2018 was \$14.8 million, an increase of \$1.0 million, or 7.6%, from total noninterest income of \$13.8 million for the first six months of 2017. Fees for other services to customers, the largest segment of noninterest income, increased 6.0% to \$5.0 million for the first six months of 2018, as compared to \$4.7 million the first six months of 2017.

Income from fiduciary activities for the first six months of 2018 increased by \$676 thousand, or 16.2% over the first six months of 2017 due to the closing of a large estate in the second quarter of 2018 and favorable equity market returns. Insurance commissions declined 5.1% to \$4.1 million for the first six months of 2018, as compared to the first six months of 2017 due to the increased competition for commercial insurance clients in the Company's markets.

The \$241 thousand increase in net gain on equity securities between the periods was due to a change in the fair value of these marketable equity securities as compared to the second quarter of 2017, pursuant to Accounting Standards Update 2016-01. See the discussion on the investment securities portfolio beginning on page 53 of this Report.

The increase in other operating income between the periods was due to the fact that the Company recognized losses in the 2017 period from the investment in regional business incubation enterprises (limited partnerships), and a small gain in the 2018 period, in addition to various credits and fees collected, none of which were individually material.

Net gain on the sale of loans in the first six months of 2018 decreased by \$189 thousand, or 75.6% from the first six months of 2017. This decrease was a result of lower loan sale volume which is consistent with the Company's business strategy to sell fewer earning assets, in favor of retaining them in the loan portfolio. See page 50 for the discussion of loan sales.

Noninterest Expense

Summary of Noninterest Expense

(Dollars in Thousands)

	Six Months Ended		Change	% Change
	6/30/2018	6/30/2017		
Salaries and Employee Benefits	\$ 19,181	\$ 18,358	\$ 823	4.5%
Occupancy Expense of Premises, Net	2,610	2,616	(6)	(0.2)
Furniture and Equipment Expense	2,351	2,422	(71)	(2.9)
FDIC and FICO Assessments	440	454	(14)	(3.1)
Amortization	132	141	(9)	(6.4)
Other Operating Expense	7,434	7,121	313	4.4
Total Noninterest Expense	<u>\$ 32,148</u>	<u>\$ 31,112</u>	<u>\$ 1,036</u>	3.3
Efficiency Ratio	56.28%	58.07%	(1.79)%	(3.1)

Noninterest expense for the first six months of 2018 was \$32.1 million, an increase of \$1.0 million, or 3.3%, from the expense for the first six months of 2017. This increase on a year-over-year basis represents less than the growth in average total loans or in average total assets between the same two periods. The Company's efficiency ratio was 56.28% for the first six months of 2018, down by 1.79%, representing an increase in efficiency, from the ratio for the comparable 2017 period. This ratio (a ratio where lower is better), is a commonly used non-GAAP financial measure in the banking industry that purports to reflect operating efficiency. The Company calculates the efficiency ratio as the ratio of noninterest expense (excluding, under the Company's definition, intangible asset amortization) to (i) net interest income

(on a tax-equivalent basis) plus (ii) noninterest income (excluding net securities gains or losses). See the discussion on this non-GAAP measure on page 40 of this Report under the heading “Use of Non-GAAP Financial Measures” and the related tabular information and notes on pages 41 through 44 of this Report.

Salaries and employee benefits expense increased 4.5% in the first six months of 2018 over the 2017 period, reflecting an increase of 3.3% in salaries and an increase of 7.4% in benefits. The increase in salary expense was due in part to staffing expansion and merit increases. The increase in the benefits expense was primarily due to increases in pension expense combined with awards related to the Company's short term incentive plan during the 2018 period. Pursuant to ASU 2017-07 Compensation-Retirement Benefits Arrow has reclassified the non-service cost components of retirement plans out of salaries and benefits and into other operating expenses.

FDIC and FICO assessments decreased by \$14 thousand for the first six months of 2018, as compared to the first six months of 2017. This decrease is primarily the result of a reduction in the requirements for community banks of Arrow's size and a repositioning of balance sheet components on which the assessment is based.

Income Taxes

Summary of Income Taxes

(Dollars in Thousands)

	Six Months Ended		Change	% Change
	6/30/2018	6/30/2017		
Provision for Income Taxes	\$ 4,380	\$ 5,709	\$ (1,329)	(23.3)%
Effective Tax Rate	19.3%	29.2%	(9.9)	(33.9)

The decrease in the effective tax rate in the first six months of 2018 over the first six months of 2017, was primarily attributable to the impact of the Tax Act which decreased the federal statutory income tax rate from 35% in 2017 to 21% in 2018.

Item 3.**QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

In addition to credit risk in the loan portfolio and liquidity risk, discussed earlier, the Company's business activities also generate market risk. Market risk is the possibility that changes in future market rates (interest rates) or prices (market value of financial instruments) will make the Company's position (i.e., our assets and operations) less valuable. The Company's primary market risk is interest rate volatility. The ongoing monitoring and management of interest rate risk is an important component of the asset/liability management process, which is governed by policies that are reviewed and approved annually by the Board of Directors. The Board of Directors delegates responsibility for carrying out asset/liability oversight and control to management's Asset/Liability Committee ("ALCO"). In this capacity ALCO develops guidelines and strategies impacting the asset/liability profile based upon estimated market risk sensitivity, policy limits and overall market interest rate levels and trends.

Changes in market interest rates, whether increases or decreases, can trigger repricing and changes in the pace of payments for both assets and liabilities (prepayment risk). This may individually or in combination affect net interest income, net interest margin, and ultimately net income, either positively or negatively. ALCO utilizes the results of a detailed and dynamic simulation model to quantify this interest rate risk by projecting net interest income in various interest rate scenarios.

The Company's standard simulation model applies a parallel shift in interest rates, ramped over a 12-month period, to capture the impact of changing interest rates on net interest income. The results are compared to ALCO policy limits which specify a maximum tolerance level for net interest income exposure over a one- year horizon, assuming no balance sheet growth and a 200 basis point upward and a 100 basis point downward shift in interest rates. Additional tools to monitor potential longer-term interest rate risk, including periodic stress testing involving hypothetical sudden and significant interest rate spikes are also evaluated.

The following table summarizes the percentage change in net interest income as compared to the base scenario, which assumes no change in market interest rates as generated from the standard simulation model. The results are presented for each of the first two years of the simulation period for the 200 basis point increase in interest rate scenario and the 100 basis point decrease in interest rate scenario. These results are well within the ALCO policy limits as shown.

As of June 30, 2018:

	Change in Interest Rate		Policy Limit
	+ 200 basis points	- 100 basis points	
Calculated change in Net Interest Income - Year 1	(2.24)%	0.53%	(10.00)%
Calculated change in Net Interest Income - Year 2	1.20%	(1.25)%	(15.00)%

Historically, there has existed an inverse relationship between changes in prevailing rates and the Company's net interest income, suggesting that liabilities and sources of funds generally reprice more quickly than earning assets. (near-term liability sensitivity). However, when net interest income is simulated over a longer time frame, this exposure is limited, and actually reverses, as asset yields continue to reprice while the cost of funding reaches assumed ceilings or floors (long-term asset sensitivity).

The hypothetical estimates underlying the sensitivity analysis are based upon numerous assumptions including: the nature and timing of changes in interest rates including yield curve shape, prepayments on loans and securities, deposit decay rates, pricing decisions on loans and deposits, reinvestment/replacement of asset and liability cash flows, and others. While assumptions are developed based upon current economic and local market conditions, the Company cannot make any assurance as to the predictive nature of these assumptions including how customer preferences or competitor influences might change.

Also, as market conditions vary from those assumed in the sensitivity analysis, actual results will differ due to: prepayment/refinancing levels likely deviating from those assumed, the varying impact of interest rate changes on caps or floors on adjustable rate assets, the potential effect of changing debt service levels on customers with adjustable rate loans, depositor early withdrawals and product preference changes, unanticipated shifts in the yield curve and other internal/external variables. Furthermore, the sensitivity analysis does not reflect actions that ALCO might take in responding to or anticipating changes in interest rates.

Item 4.**CONTROLS AND PROCEDURES**

Senior management, including the Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the design and operation of Arrow's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended) as of June 30, 2018. Based upon that evaluation, senior management, including the Chief Executive Officer and Chief Financial Officer, concluded that our disclosure controls and procedures were effective. Further, there were no changes made in the Company's internal control over financial reporting that occurred during the most recent fiscal quarter that had materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1.

Legal Proceedings

The Company, including its subsidiary banks, are not currently the subject of any material pending legal proceedings, other than ordinary routine litigation occurring in the normal course of their business. On an ongoing basis, the Company is often the subject of, or a party to, various legal claims by other parties against the Company, by the Company against other parties, or involving the Company, which arise in the normal course of business. The various pending legal claims against the Company will not, in the opinion of management based upon consultation with counsel, result in any material liability.

Item 1.A.

Risk Factors

The Risk Factors identified in the Company's Annual Report on Form 10-K for the year ended December 31, 2017, continue to represent the most significant risks to the Company's future results of operations and financial conditions, without modification or amendment. Please refer to such Risk Factors as listed in Part I, Item 1A, of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017.

Item 2.

Unregistered Sales of Equity Securities and Use of Proceeds

Unregistered Sales of Equity Securities

There were no unregistered sales of the Company's equity securities by or on behalf of the Company during the just-completed quarter.

Issuer Purchases of Equity Securities

The following table presents information about purchases by Arrow of its common stock during the quarter ended June 30, 2018:

Second Quarter 2018 Calendar Month	(A) Total Number of Shares Purchased ¹	(B) Average Price Paid Per Share ¹	(C) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ²	(D) Maximum Approximate Dollar Value of Shares that May Yet be Purchased Under the Plans or Programs ²
April	2,164	\$ 35.62	—	\$ 4,610,800
May	11,295	37.37	—	4,610,800
June	21,494	36.64	—	4,610,800
Total	34,953	36.81	—	

¹ The total number of shares purchased by the Company and the average price paid per share listed in columns (A) and (B) consist of (i) any shares purchased in such periods in open market or private transactions under the Arrow Financial Corporation Automatic Dividend Reinvestment Plan (the "DRIP") by the administrator of the DRIP, and (ii) shares surrendered or deemed surrendered to Arrow in such periods by holders of options to acquire Arrow common stock received by them under Arrow's long-term incentive plans ("LTIPs") in connection with their stock-for-stock exercise of such options. In the months indicated, the listed number of shares purchased included the following number of shares purchased by Arrow through such methods: April - DRIP purchases (586 shares) and stock-for-stock exercises (1,578 shares); May - DRIP purchases (566 shares) and stock-for-stock exercises (10,729 shares); and June - DRIP purchases (12,507 shares), and stock-for-stock exercises (8,987 shares).

² Includes only those shares acquired by Arrow pursuant to its 2018 stock repurchase program. The only publicly-announced stock repurchase program in effect for the second quarter of 2018 was the program approved by the Board of Directors and announced in October 2017, under which the Board authorized management, in its discretion, to repurchase from time to time during 2018, in the open market or in privately negotiated transactions, up to \$5 million of Arrow common stock subject to certain exceptions (the "2018 stock repurchase program"). Arrow had no repurchases of its shares in the second quarter of 2018 under the 2018 stock repurchase program.

Item 3.

Defaults Upon Senior Securities - None

Item 4.

Mine Safety Disclosures - None

Item 5.

Other Information - None

Item 6.

Exhibits

<u>Exhibit Number</u>	<u>Exhibit</u>
15	Awareness Letter
31.1	Certification of Chief Executive Officer under SEC Rule 13a-14(a)/15d-14(a)
31.2	Certification of Chief Financial Officer under SEC Rule 13a-14(a)/15d-14(a)
32	Certification of Chief Executive Officer under 18 U.S.C. Section 1350 and Certification of Chief Financial Officer under 18 U.S.C. Section 1350
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

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.

ARROW FINANCIAL CORPORATION

Registrant

August 8, 2018

Date

/s/Thomas J. Murphy

Thomas J. Murphy, President and
Chief Executive Officer

August 8, 2018

Date

/s/Edward J. Campanella

Edward J. Campanella, Senior Vice President,
Treasurer and Chief Financial Officer
(Principal Financial Officer and
Principal Accounting Officer)

Exhibit 15

Report of Independent Registered Public Accounting Firm

August 8, 2018

The Stockholders and Board of Directors
Arrow Financial Corporation
Glens Falls, New York

Re: Registration Statement Forms S-3 (No. 333-197927, 333-210110, and 333-219822) and Forms S-8 (No. 333-62719, No. 333-151550, No. 333-188479, and No. 333-188480)

With respect to the subject registration statement, we acknowledge our awareness of the use therein of our report dated August 8, 2018 related to our review of interim financial information.

Pursuant to Rule 436 under the Securities Act of 1933 (the Act), such report is not considered part of a registration statement prepared or certified by an independent registered public accounting firm, or a report prepared or certified by an independent registered public accounting firm within the meaning of Sections 7 and 11 of the Act.

/s/ KPMG LLP

Albany, New York

**Certification of the Chief Executive Officer Pursuant to
Securities Exchange Act Rules 13a-14 and 15d-14
As Adopted Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002**

I, Thomas J. Murphy, certify that:

1. I have reviewed the quarterly report on Form 10-Q of Arrow Financial Corporation;
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 officers 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.
5. The registrant's other certifying officers 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: August 8, 2018

By: /s/Thomas J. Murphy
Thomas J. Murphy
Chief Executive Officer

**Certification of the Chief Financial Officer Pursuant to
Securities Exchange Act Rules 13a-14 and 15d-14
As Adopted Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002**

I, Edward J. Campanella, certify that:

1. I have reviewed the quarterly report on Form 10-Q of Arrow Financial Corporation;
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 officers 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.
5. The registrant's other certifying officers 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: August 8, 2018

By: /s/Edward J. Campanella
Edward J. Campanella
Chief Financial Officer

**Certification of Chief Executive Officer and Chief Financial Officer
Pursuant to 18 U.S.C. Section 1350
As Adopted Pursuant To
Section 906 of The Sarbanes-Oxley Act of 2002**

In connection with the quarterly report of Arrow Financial Corporation (the "Company") on Form 10-Q for the period ended June 30, 2018, filed with the Securities and Exchange Commission (the "Report"), we, Thomas J. Murphy, Chief Executive Officer of the Company, and Edward J. Campanella, Chief Financial Officer of the Company, hereby certify, in accordance with 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of our knowledge:

- (a) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (b) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: August 8, 2018

/s/ Thomas J. Murphy
Thomas J. Murphy
Chief Executive Officer

/s/ Edward J. Campanella
Edward J. Campanella
Chief Financial Officer

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