CAMBRIDGE BANCORP

2018 Annual Report

PRIVATE BANKING | WEALTH MANAGEMENT

Year at a Glance

Financial Performance (Dollars in thousands except per share data)

Year End	2014	2015	2016	2017	2018
Total Assets	$ 1,573,692	$ 1,706,201	$ 1,848,999	$ 1,949,934	$ 2,101,384
Total Deposits	$ 1,370,536	$ 1,557,224	$ 1,686,038	$ 1,775,400	$ 1,811,410
Total Loans	$ 1,080,766	$ 1,192,214	$ 1,320,154	$ 1,350,899	$ 1,559,772
Non-Interest Income	$ 24,464	$ 25,865	$ 28,661	$ 30,224	$ 32,989
Net Income (Core)	$ 14,944	$ 15,694	$ 16,896	$ 18,685*	$ 24,026*
Diluted Earnings Per Share (Core)	$ 3.78	$ 3.93	$ 4.15	$ 4.55*	$ 5.80*
Dividend Declared Per Share	$ 1.68	$ 1.80	$ 1.84	$ 1.86	$ 1.96
Book Value Per Share	$ 29.50	$ 31.26	$ 33.36	$ 36.24	$ 40.67
Net Interest Margin, FTE	3.37%	3.32%	3.21%	3.25%	3.33%
Return/Average Assets (Core)	0.98%	0.95%	0.95%	1.00%*	1.21%*
Return/Average Equity (Core)	12.87%	12.91%	12.77%	13.21%*	15.45%*

Wealth Management

Year	Gross Revenues (in thousands)	AUM & AUA (in millions)
2014	$ 17,954	$ 2,371
2015	$ 19,242	$ 2,449
2016	$ 20,389	$ 2,689
2017	$ 23,029	$ 3,086
2018	$ 25,191	$ 2,877

Asset Quality (Dollars in thousands)

Year End	2014	2015	2016	2017	2018
Non-Performing Loans	$ 1,629	$ 1,481	$ 1,676	$ 1,298	$ 642
Non-Performing Loans/Total Loans	0.15%	0.12%	0.13%	0.10%	0.04%
Net (Charge-Offs)/Recoveries	$ 11	$ (153)	$ (62)	$ (303)	$ (54)
Allowance/Total Loans	1.32%	1.27%	1.16%	1.13%	1.08%

GAAP to Non-GAAP Reconciliation (Dollars in thousands except per share data)

*Statement on Non-GAAP Measures: The Company believes the presentation of the following non-GAAP financial measures provides useful supplemental information that is essential to an investor's proper understanding of the results of operations and financial condition of the Company. Management uses non-GAAP financial measures in its analysis of the Company's performance. These non-GAAP measures should not be viewed as substitutes for the financial measures determined in accordance with GAAP, nor are they necessarily comparable to non-GAAP performance measures that may be presented by other companies. Please see the following tables for a reconciliation of such non-GAAP financial measures to the most directly comparable GAAP measure.

Net Income (Core)/Diluted EPS (Core)

For the Year Ended December 31	2017	2018
Net Income (a GAAP measure)	$ 14,816	$ 23,881
Merger Expenses (Pretax)	-	201
Tax Effect of Merger-related Expenses(1)	-	(56)
Impact of the Tax Cuts and Jobs Act of 2017(2)	$ 3,869	$ -
Net Income (Core) (a non-GAAP measure)	$ 18,685	$ 24,026
Weighted average diluted shares	4,065,754	4,098,633
Diluted earnings per share (Core) (a non-GAAP measure)	$ 4.55	$ 5.80

Return on Average Assets (Core)	2017	2018
Net income (Core) (a non-GAAP measure)	$ 18,685	$ 24,026
Average assets	$ 1,875,136	$ 1,980,580
Return on avg. assets (Core) (a non-GAAP measure)	1.00%	1.21%

Return on Average Equity (Core)	2017	2018
Net income (Core) (a non-GAAP measure)	$ 18,685	$ 24,026
Average equity	$ 141,488	$ 155,546
Return on avg. equity (Core) (a non-GAAP measure)	13.21%	15.45%

(1) The net tax benefit associated with non-core items is determined by assessing whether each non-core item is included or excluded from net taxable income and applying the Company's combined marginal tax rate to only those items included in net taxable income.

(2) Income tax adjustment related to the re-measurement of net deferred tax assets due to the Tax Cuts and Jobs Act of 2017.

2018 Letter to Shareholders

For generations, Cambridge Trust has provided clients with private banking and wealth management services that consistently reflect our commitment to financial acumen, accountability, and integrity. Our aim — now as always — is to deliver the most important return of all: trust. It's not just a word for us, but a standard by which we measure ourselves, and an ideal that we translate into action.

Every day, we provide individuals, families, and businesses with the exceptional personal attention and customized financial solutions they need to create, grow, and protect their wealth. We are honored that our clients trust us with their goals and priorities, and to always act in their best interest at every stage of their financial lives.

And to all of our stakeholders, "trust" means that you can count on us to be true to our values. In 2018, the Bank delivered in terms of discipline, financial performance, and fidelity to our core principles.

"We are honored that our clients trust us with their goals and priorities."

Financial Performance

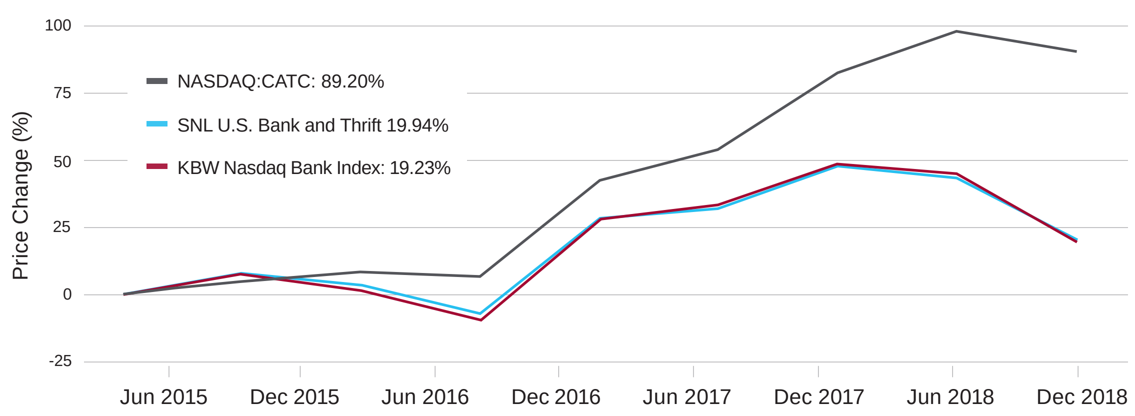
In 2018, Cambridge Bancorp reported net income of $ 23.9 million, an increase compared to net income of $14.8 million for the year ending December 31, 2017. In gauging performance, we like to refer to the change in income before taxes, due to the volatility in year-to-year earnings caused by the 2017 tax law change. By that standard, income before taxes increased to $31.1 million in 2018, or 10.3% from the $28.2 million reported in 2017.

Core return on average assets and average equity in 2018 were 1.21% and 15.45%, respectively. This performance is reflected in a continued improvement in stock valuation as indicated in Fig. 1 below.

has fared well in this volatile period, and our disciplined interest rate strategy has made it possible for us to maintain the net interest margin at an acceptable level.

We made significant progress on a number of other fronts in the ongoing implementation of our growth strategy. Of significant note, we launched a new brand identity, a new bank website, and a brand awareness campaign in 2018. All too often in the past, we have heard the remark that "I didn't know Cambridge Trust was in the wealth management business." This needs to change. We are investing to build greater awareness of our broad

Fig. 1: **Cambridge Bancorp (CATC) Price Change % vs. Market Benchmarks**



In 2018, we delivered strong earnings performance and achieved growth in the midst of a challenging rising rate environment. The Federal Reserve continued its monetary tightening policy by raising short-term interest rates (the Federal Funds rate) from the low of 0–0.25% for most of the last decade to 2.5% at their meeting in December 2018. The yield curve has been flattening, which means that the spread between loan rates and the deposit, or borrowing rates used to fund loans, has narrowed significantly. Yet Cambridge Bancorp

capabilities and of the unique skillset that we offer to the marketplace. The modification of brand identity is not something to be taken lightly, especially given our strong heritage. While the new identity has a more contemporary look and feel, it uses a classic font that is closely aligned with our history.

CAMBRIDGE TRUST

PRIVATE BANKING WEALTH MANAGEMENT

Our new website captures our identity as the contemporary and highly capable private banking and wealth management organization that we are today. To amplify our new brand identity and website, we launched a new corporate advertising campaign with messaging built around a meaningful question — *Who Do You Trust?*. This question asks clients to focus on what matters to them in building relationships, and encourages reflection about what we bring to the table. This message builds upon our proud legacy of building personal and trusted relationships with each client.

Merger and Expansion in New Hampshire

In December, we announced our agreement to merge with Optima Bank & Trust Company, headquartered in Portsmouth, New Hampshire. Optima has six banking office locations, largely on the New Hampshire Seacoast, and approximately $500 million in assets. Once we have combined Optima's resources with our $1 billion in wealth management assets in the Granite State, we will be able to provide full private banking services to our combined set of clients, and to the marketplace. We are excited to be working with Dan and Pam Morrison of Optima and their highly talented team to plot the future growth of Cambridge Trust in New Hampshire.

Private Banking

Total deposits grew to $1.81 billion, a modest increase of $36 million, or 2%. We have navigated the rising interest rate environment by exercising discipline in managing the variety of funding sources available to us. We keep a steady hand at the helm and don't overreact to short-term cyclical factors, while remaining committed to building our deposit base. From time to time, growth is affected by strategy in a particular interest rate or competitive environment, such as was the case in 2018.

Residential real estate lending also experienced solid growth in 2018, as the portfolio increased to $604.3 million, or an increase of 12%.

Wealth Management

Cambridge Trust's wealth management team achieved solid revenue growth of 9.4% in 2018 in the midst of turbulent markets. Our performance in 2018 was a tale of two stories. First, on a very positive note, our investment performance for clients was stellar versus benchmarks. The team continues to focus on bottom-up fundamental stock and bond analysis combined with thoughtful, top-down asset allocation. This approach served our clients well in 2018, and promises to do so over the long term as well.

Among the

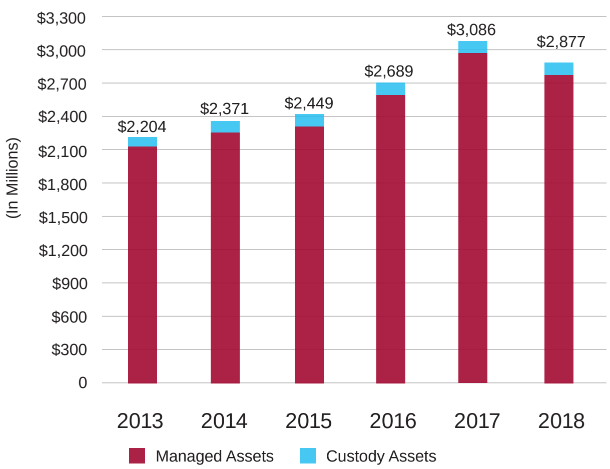
TOP 25

Independent Investment Advisors in Massachusetts*

*According to the *Boston Business Journal's* 2018 Book of Lists

On a less positive note, our net new business was disappointing in 2018, as indicated in Fig. 2 below. Our desire to add new business development resources lagged behind expectations.

Fig. 2: **5-Year CAGR** (through 2018 +5.5%)



Wealth management revenue remained the primary component of the Bank's non-interest revenue, which stands at a relatively strong 34% of revenue.

Our focus in 2019 will be to re-energize business development, while continuing to expand our investment offering for clients.

Commercial Banking

The year 2018 was very strong in Commercial Banking. Our team forged ahead in this competitive environment and produced loan growth of $152.7 million, or 21.9% in 2018. Both the real estate and commercial and industrial categories experienced growth of 20% and 44%, respectively.

Importantly, commercial loan asset quality remained pristine with non-performing loans to commercial loans at 0.04% on December 31, 2018.

Community

We are committed to being a meaningful partner to our communities. Partnership is a central part of trust. This partnership ranges from volunteerism to financial commitment. In particular, we demonstrate that our communities can trust us through our active commitment to affordable housing. We translated that commitment into action by significantly increasing low and moderate income mortgage lending, as well as community development lending. Our team has performed admirably in this context. Our results show we have almost doubled the amount of low and moderate income loans in 2018. The partnership is not just a matter of money. We also provide dedicated resources to educate borrowers in first time home buying and credit counseling.

In 2018, we contributed more than $500,000 to more than 200 organizations in Greater Boston and New Hampshire in support of affordable housing, economic development, financial literacy, arts and culture, youth and family, health and human services, and social justice. Our team engaged in numerous volunteer activities in service to Boards of nonprofits and their direct recipients.

Sustainability and Diversity

In 2018, our 128th year, we continued our commitment as a fiduciary to our clients. Our clients can trust us always to act in their best interest. One of the ways in which we fulfill this promise is by maintaining transparency in our fee structure.

In an environment of "free" and "no-fee" investment strategies, we don't offer proprietary funds with hidden fees to promote self-interest.

Sustainability is closely related to trust. We trust not just what lasts, but what becomes better over time. Cambridge Trust, with our dedicated team of employees, has been providing banking and wealth management services for our clients and communities for 128 years. We manage in years, not quarters.

We also manage in terms of quality, not just quantity. We continued our commitment to diversity and inclusion in 2018. Our Board of Directors and management team reflect this commitment with strong representation by women, people of color, and people with diverse ethnic backgrounds.

Our People

In 2018, Kerri Mooney, John Sullivan, and Puneet Nevatia joined our management team as Director of Private Banking Offices, Director of Personal Lending, and Chief Information Officer, respectively. Kerri, John, and Puneet bring extensive experience to Cambridge Trust and will be key to our future success.

There has been significant change in the management team in the past four years. These changes reflect our awareness of the importance of improving succession planning. We are determined to build our future leaders, and we have talent aplenty to accomplish that objective. Hiring and succession are key to the process of setting high expectations as a team and then following through on them over time.

In 2019, we will sustain our growth in meaningful, measurable ways while building upon our foundational commitments. Our management team is highly energized and motivated to succeed. We see ample opportunity for fulfilling and even exceeding growth expectations.

We thank our colleagues throughout the Company for their dedication to service and to making a difference in clients' lives. We also thank our Board of Directors for their engagement and counsel.

Thank you for your ongoing support.

> "We thank our colleagues for their dedication to service and making a difference in clients' lives."

Denis K. Sheahan
Chairman & CEO
March 15, 2019

Mark D. Thompson
President
March 15, 2019

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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2018

OR

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

FOR THE TRANSITION PERIOD FROM__________TO

Commission File Number 001-38184

CAMBRIDGE BANCORP

(Exact name of Registrant as specified in its Charter)

Massachusetts (State or other jurisdiction of incorporation or organization)	**04-2777442** (I.R.S. Employer Identification No.)
1336 Massachusetts Avenue **Cambridge, MA** (Address of principal executive offices)	**02138** (Zip Code)

Registrant's telephone number, including area code: (617) 876-5500

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

Common Stock (Title of each class)	**NASDAQ** (Name of each exchange on which registered)

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

None
(Title of class)

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES ☐ NO ☒

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES ☐ NO ☒

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

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

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

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant, based on the closing price of the shares of common stock on The NASDAQ Stock Market on June 30, 2018, was $315.4 million. The number of shares of Registrant's Common Stock outstanding as of March 15, 2019 was 4,123,636.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Definitive Proxy Statement relating to the Annual Meeting of Shareholders, scheduled to be held on May 13, 2019, are incorporated by reference into Part III of this Report.

Table of Contents

PART I

Unless the context requires otherwise, all references to the "Company," "we," "us," and "our," refer to Cambridge Bancorp.

Forward-Looking Statements

This report contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. Such forward-looking statements about the Company and its industry involve substantial risks and uncertainties. Statements other than statements of current or historical fact, including statements regarding the Company's future financial condition, results of operations, business plans, liquidity, cash flows, projected costs, and the impact of any laws or regulations applicable to the Company, are forward-looking statements. Words such as "anticipates," "believes," "estimates," "expects," "forecasts," "intends," "plans," "projects," "may," "will," "should," and other similar expressions are intended to identify these forward-looking statements. Such statements are subject to factors that could cause actual results to differ materially from anticipated results. Such factors include, but are not limited to, the following:

- national, regional, and local economic conditions may be less favorable than expected, resulting in, among other things, increased charge-offs of loans, higher provisions for credit losses, and/or reduced demand for the Company's services;
- disruptions to the credit and financial markets, either nationally or globally;
- weakness in the real estate market, including the secondary residential mortgage market, which can affect, among other things, the value of collateral securing mortgage loans, mortgage loan originations and delinquencies, and profits on sales of mortgage loans;
- legislative, regulatory, or accounting changes, including changes resulting from the adoption and implementation of the Dodd-Frank, Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act"), which may adversely affect our business and/or competitive position, impose additional costs on the Company, or cause us to change our business practices;
- the Dodd-Frank Act's consumer protection regulations, which could adversely affect the Company's business, financial condition, or results of operations;
- disruptions in the Company's ability to access capital markets, which may adversely affect its capital resources and liquidity;
- risks associated with acquisitions, including the proposed acquisition of Optima Bank and Trust Company in the Merger;
- the Company's heavy reliance on communications and information systems to conduct its business and reliance on third parties and affiliates to provide key components of its business infrastructure, any disruptions of which could interrupt the Company's operations or increase the costs of doing business;
- the Company's financial reporting controls and procedures may not prevent or detect all errors or fraud;
- the Company's dependence on the accuracy and completeness of information about clients and counterparties;
- the fiscal and monetary policies of the federal government and its agencies;
- the failure to satisfy capital adequacy and liquidity guidelines applicable to the Company;
- downgrades in the Company's credit rating;
- changes in interest rates, which could affect interest rate spreads and net interest income;
- costs and effects of litigation, regulatory investigations, or similar matters;
- a failure by the Company to effectively manage the risks the Company faces, including credit, operational, and cyber security risks;
- increased pressures from competitors (both banks and non-banks) and/or an inability by the Company to remain competitive in the financial services industry, particularly in the markets which the Company serves, and keep pace with technological changes;
- unpredictable natural or other disasters, which could impact the Company's customers or operations;
- a loss of customer deposits, which could increase the Company's funding costs;
- the disparate impact that can result from having loans concentrated by loan type, industry segment, borrower type, location of the borrower, or collateral;

- changes in the creditworthiness of customers;
- increased loan losses or impairment of goodwill and other intangibles;
- negative public opinion, which could damage the Company's reputation and adversely impact business and revenues;
- the Company depends on the expertise of key personnel and if these individuals leave or change their roles without effective replacements, operations may suffer;
- the Company may not be able to hire or retain additional qualified personnel and recruiting and compensation costs may increase as a result of turnover, both of which may increase costs and reduce profitability and may adversely impact the Company's ability to implement the Company's business strategies; and
- changes in the Company's accounting policies or in accounting standards, which could materially affect how the Company reports financial results and condition.

The Company does not undertake, and specifically disclaims any obligation to, publicly release the result of any revisions which may be made to any forward-looking statements to reflect the occurrence of anticipated or unanticipated events or circumstances after the date of such statements. You are cautioned not to place undue reliance on these forward-looking statements.

Item 1. Business.

The Company

Cambridge Bancorp (together with its bank subsidiary, unless the context otherwise requires, the "Company") is a Massachusetts state-chartered, federally registered bank holding company headquartered in Cambridge, Massachusetts. The Company is a Massachusetts corporation formed in 1983 and has one bank subsidiary, Cambridge Trust Company (the "Bank"), formed in 1890. On October 18, 2017, shares of the Company's common stock commenced trading on the NASDAQ Stock Market under the symbol CATC. Prior to this date, the Company's shares traded on the over the counter market. As of December 31, 2018, the Company had total assets of approximately $2.1 billion. Currently, the Bank operates 10 full-service private banking offices in six cities and towns in Eastern Massachusetts. As a Private Bank, we focus on four core services that center around client needs. Our core services include Wealth Management, Commercial Banking, Residential Lending, and Personal Banking. The Bank's customers consist primarily of consumers and small- and medium-sized businesses in these communities and surrounding areas throughout Massachusetts and New Hampshire. The Company's Wealth Management Group has five offices, two in Boston, Massachusetts and three in New Hampshire in Concord, Manchester, and Portsmouth. As of December 31, 2018, the Company had Assets under Management and Administration of approximately $2.9 billion. The Wealth Management Group offers comprehensive investment management, as well as trust administration, estate settlement, and financial planning services. Our wealth management clients value personal service and depend on the commitment and expertise of our experienced banking, investment, and fiduciary professionals.

The Wealth Management Group customizes its investment portfolios to help its clients meet their long-term financial goals while moderating short-term stock market volatility. Through careful monitoring of asset allocation and disciplined security selection, the Company's in-house investment team provides clients with long-term capital growth while minimizing risk. Our internally developed, research-driven process is managed by our team of portfolio managers and analysts. We build discretionary portfolios consisting of our best investment ideas, focusing on individual global equities, fixed income securities, exchange-traded funds, and mutual funds. Our team-oriented approach fosters spirited discussion and rigorous evaluation of investments.

The Company offers a wide range of services to commercial enterprises, non-profit organizations, and individuals. The Company emphasizes service to consumers and small- and medium-sized businesses in its market area. The Company makes commercial loans, commercial real estate loans, construction loans, consumer loans, and real estate loans (including one-to-four family and home equity lines of credit), and accepts savings, money market, time, and demand deposits. In addition, the Company offers a wide range of commercial and personal banking services which include cash management, online banking, mobile banking, and global payments. The Company has one trademark, "Thought Series."

The Company's results of operations are largely dependent on net interest income, which is the difference between the interest earned on loans and securities and interest paid on deposits and borrowings, and non-interest income largely from its wealth management services. The results of operations are affected by the level of income and fees from loans, deposits, as well as operating expenses, the provision for loan losses, the impact of federal and state income taxes, the relative levels of interest rates, and local and national economic activity.

Through the Bank, the Company focuses on wealth management, the commercial banking business and private banking for clients, including residential lending and personal banking. Within the commercial loan portfolio, the Company has traditionally been a commercial real estate lender and in recent years has diversified commercial operations within the areas of commercial and industrial lending to include Innovation Banking, which specializes in working with primarily New England-based entrepreneurs, and asset based lending that helps companies throughout New England and New York grow by borrowing against existing assets. The Innovation Banking Group has a narrow client focus for lending and provides a local banking option for technology and entrepreneurial companies within our market area that are primarily serviced by out-of-market institutions. Personal banking focuses on providing exceptional service to clients and in deepening relationships.

Cambridge Trust Company

The Bank offers a full range of commercial and consumer banking services through its network of 10 full-service private banking offices in Eastern Massachusetts. The Bank is engaged principally in the business of attracting deposits from the public and investing those deposits. The Bank invests those funds in various types of loans, including residential and commercial real estate, and a variety of commercial and consumer loans. The Bank also invests its deposits and borrowed funds in investment securities and has two wholly-owned Massachusetts security corporations, CTC Security Corporation and CTC Security Corporation III, for this purpose. Deposits at the Bank are insured by the Federal Deposit Insurance Corporation (the “FDIC”) for the maximum amount permitted by FDIC regulations.

Investment management and trust services are offered through our two wealth management offices located in Boston and three wealth management offices located in New Hampshire. The Bank also utilizes its subsidiary and non-depository trust company, Cambridge Trust Company of New Hampshire, Inc., to provide wealth management services in New Hampshire. The assets held for wealth management customers are not assets of the Bank and, accordingly, are not reflected in the Company’s consolidated balance sheets.

Cambridge Trust Company is active in the communities we serve. The Bank makes contributions to various non-profits and local organizations, investments in community development lending, and investments in low-income housing all of which strive to improve the communities that our employees and customers call home.

Merger with Optima Bank & Trust Company

In the fourth quarter of 2018, Cambridge Bancorp, Cambridge Trust Company, and Optima Bank & Trust Company (“Optima”) entered into a definitive agreement pursuant to which Optima will merge with and into Cambridge Trust Company in a stock and cash transaction (the “Merger”). Under the terms of the merger agreement, each outstanding share of Optima common stock will be converted into the right to receive $32.00 in cash or 0.3468 shares of the Company’s common stock. The Optima shareholders will have the right to elect either cash or stock with the constraint that the overall transaction must be consummated with 95% of Optima shares being exchanged for the Company’s common stock and 5% being exchanged for cash. If there is an imbalance in elections, there will be a proration of proceeds to achieve the 95/5 split. The Merger is anticipated to close during the second quarter of 2019 and is expected to enhance and expand the Company’s southern New Hampshire presence. The consummation of the Merger is subject to receipt of the requisite approval of Optima’s shareholders, receipt of all required regulatory approvals, and other customary closing conditions.

Market Area

The Company operates in Eastern Massachusetts and Southern New Hampshire. Our primary lending market includes Middlesex and Suffolk Counties in Massachusetts. We benefit from the presence of numerous institutions of higher learning, medical care and research centers, a vibrant innovation economy in life sciences and technology, and the corporate headquarters of several significant financial service companies within the Boston area. Eastern Massachusetts also has many high technology companies employing personnel with specialized skills. These factors affect the demand for wealth management services, residential homes, multi-family apartments, office buildings, shopping centers, industrial warehouses, and other commercial properties.

Our lending area is primarily an urban market area with a substantial number of one-to-four unit residential properties, some of which are non-owner occupied, as well as apartment buildings, condominiums, office buildings, and retail space. As a result, our loan portfolio contains a significantly greater number of multi-family and commercial real estate loans compared to institutions that operate in non-urban markets.

Our market area is located largely in the Boston-Cambridge-Quincy, Massachusetts/New Hampshire Metropolitan Statistical Area ("MSA"). The United States Census Bureau estimates that as of July 1, 2016, the Boston metropolitan area is the 10th largest metropolitan area in the United States. Located adjacent to major transportation corridors, the Boston metropolitan area provides a highly diversified economic base, with major employment sectors ranging from services, education, manufacturing, and wholesale/retail trade, to finance, technology, and medical care. According to the United States Department of Labor, in November 2018, the Boston-Cambridge-Quincy, Massachusetts/New Hampshire MSA had an unemployment rate of 2.4% compared to the national unemployment rate of 3.7%.

Competition

The financial services industry is highly competitive. The Company experiences substantial competition with other commercial banks, savings and loan associations, securities and brokerage companies, mortgage companies, insurance companies, finance companies, money market funds, credit unions, and other non-bank financial service providers in attracting deposits, making loans, and attracting wealth management customers. The competing major commercial banks have greater resources that may provide them a competitive advantage by enabling them to maintain numerous branch offices and mount extensive advertising campaigns. The increasingly competitive environment is the result of changes in regulation, changes in technology and product delivery systems, additional financial service providers, and the accelerating pace of consolidation among financial services providers.

The financial services industry has become even more competitive as a result of legislative, regulatory, and technological changes and continued consolidation. Banks, securities firms, and insurance companies can merge under the umbrella of a financial holding company, which can offer virtually any type of financial service, including banking, securities underwriting, insurance (both agency and underwriting), and merchant banking. Also, technology has lowered barriers to entry and made it possible for non-banks to offer products and services traditionally provided by banks, such as automatic transfer and automatic payment systems.

Some of the Company's non-banking competitors have fewer regulatory constraints and may have lower cost structures. In addition, some of the Company's competitors have assets, capital and lending limits greater than that of the Company, greater access to capital markets, and offer a broader range of products and services than the Company. These institutions may have the ability to finance wide-ranging advertising campaigns and may also be able to offer lower rates on loans and higher rates on deposits than the Company can offer. Some of these institutions offer services, such as international banking, which the Company does not directly offer.

Various in-state market competitors and out-of-state banks continue to enter or have announced plans to enter or expand their presence in the market areas in which the Company currently operates. With the addition of new banking presences within our market, the Company expects increased competition for loans, deposits, and other financial products and services.

The Company is a Private Bank, stressing the holistic client relationship, and relies upon local promotional activities, personal relationships established by officers, directors, and employees with their customers, and specialized services tailored to meet the needs of the communities served. While the Company's position varies by market, the Company's management believes that it can compete effectively as a result of local market knowledge, local decision making, and awareness of customer needs.

Supervision and Regulation

General

Banking is a complex, highly regulated industry. Consequently, the performance of the Company and the Bank can be affected not only by management decisions and general and local economic conditions, but also by the statutes enacted by the U.S. Congress and state legislatures, and the regulations and policies of, various governmental regulatory authorities. These authorities include, but are not limited to, the Board of Governors of the Federal Reserve System (the "Federal Reserve"), the Massachusetts Division of Banks (the "MDB"), the State of New Hampshire Banking Department, and the FDIC.

The primary goals of bank regulation are to maintain a safe and sound banking system and to facilitate the conduct of sound monetary policy. In furtherance of these goals, the U.S. Congress and the Commonwealth of Massachusetts have created largely autonomous regulatory agencies that oversee and have enacted numerous laws that govern banks, bank holding companies, and the banking industry. The system of supervision and regulation applicable to the Company and the Bank establishes a comprehensive framework for the entities' respective operations and is intended primarily for the protection of the Bank's depositors and the public, rather than the shareholders and creditors. The following summarizes the significant laws, rules, and regulations governing banks and bank holding companies, including the Company and the Bank, but does not purport to be a complete summary of all applicable laws, rules, and regulations governing bank holding companies and banks or the Company or the Bank. The descriptions are qualified in their entirety by reference to the specific statutes, regulations, and policies discussed. Any change in applicable laws, regulations, or regulatory policies may have a material effect on our businesses, operations and prospects. The Company is unable to predict the nature or extent of the effects that economic controls or new federal or state legislation may have on our business and earnings in the future.

Regulatory Agencies

Cambridge Bancorp is a legal entity separate and distinct from its first tier bank subsidiary, Cambridge Trust Company, and its second tier subsidiaries, Cambridge Trust Company of New Hampshire, Inc., a New Hampshire state-chartered non-depository trust company, CTC Security Corporation and CTC Security Corporation III, which are used to invest the Bank's deposits and borrowed funds in investment securities. As a bank holding company, the Company is regulated under the Bank Holding Company Act of 1956, as amended ("BHC Act"), Massachusetts laws applying to bank holding companies and Massachusetts corporations more generally. The Company is subject to inspection, examination, and supervision by the Federal Reserve and the MDB.

As a Massachusetts state-chartered insured depository institution, Cambridge Trust Company is subject to supervision, periodic examination, and regulation by the MDB as its chartering authority, and by the FDIC as its primary federal regulator. The prior approval of the MDB and the FDIC is required, among other things, for the Bank to establish or relocate any additional branch offices, assume deposits, or engage in any merger, consolidation, purchase, or sale of all or substantially all of the assets of any insured depository institution.

Cambridge Trust Company of New Hampshire, Inc. is subject to supervision, periodic examination and regulation by The State of New Hampshire Banking Department.

Bank Holding Company Regulations Applicable to the Company

The BHC Act and other federal laws and regulations subject bank holding companies to particular restrictions on the types of activities in which they may engage and to a range of supervisory requirements and activities, including regulatory enforcement actions for violations of laws and regulations. As a Massachusetts corporation and bank holding company, the Company is also subject to certain limitations and restrictions under applicable Massachusetts law.

Mergers & Acquisitions

The BHC Act, the Bank Merger Act, the laws of the Commonwealth of Massachusetts applicable to financial institutions, and other federal and state statutes regulate acquisitions of banks and their holding companies. The BHC Act generally limits acquisitions by bank holding companies to banks and companies engaged in activities that the Federal Reserve has determined to be so closely related to banking as to be a proper incident thereto. The BHC Act requires every bank holding company to obtain the prior approval of the Federal Reserve before (i) acquiring more than 5% of the voting stock of any bank or other bank holding company, (ii) acquiring all or substantially all of the assets of any bank or bank holding company, or (iii) merging or consolidating with any other bank holding company.

In reviewing applications seeking approval of merger and acquisition transactions, the bank regulatory authorities generally consider, among other things, the competitive effect and public benefits of the transactions, the financial and managerial resources and future prospects of the combined organization (including the capital position of the combined organization), the applicant's performance record under the Community Reinvestment Act (see —*Community Reinvestment Act*), fair housing laws, and the effectiveness of the subject organizations in combating money laundering activities.

Non-bank Activities

Generally, bank holding companies are prohibited, under the BHC Act, from engaging in, or acquiring direct or indirect control of more than 5% of the voting shares of any company engaged in, any activity other than (i) banking or managing or controlling banks or (ii) an activity that the Federal Reserve determines to be so closely related to banking as to be a proper incident to the business of banking. The Federal Reserve has the authority to require a bank holding company to terminate an activity or terminate control of, or liquidate or divest, certain subsidiaries or affiliates when the Federal Reserve believes the activity or the control of the subsidiary or affiliate constitutes a significant risk to the financial safety, soundness, or stability of any of its bank subsidiaries.

A bank holding company that qualifies and elects to become a financial holding company is permitted to engage in additional activities that are financial in nature or incidental or complementary to financial activity. The Company currently has no plans to make a financial holding company election.

Bank holding companies and their non-banking subsidiaries are prohibited from engaging in activities that represent unsafe and unsound banking practices. For example, under certain circumstances the Federal Reserve's Regulation Y requires a holding company to give the Federal Reserve prior notice of any redemption or repurchase of its own equity securities if the consideration to be paid, together with the consideration paid for any other redemptions or repurchases in the preceding year, is equal to 10% or more of the bank holding company's consolidated net worth. The Federal Reserve may oppose the transaction if it believes that the transaction would constitute an unsafe or unsound practice or would violate a regulation. As another example, a bank holding company is prohibited from impairing its subsidiary bank's soundness by causing the bank to make funds available to non-bank subsidiaries or their customers if the Federal Reserve believes it is not prudent to do so. The Federal Reserve has the power to assess civil money penalties for knowing or reckless violations if the activities leading to a violation caused a substantial loss to a depository institution. Potential penalties can reach as high as almost $2.0 million for each day such activity continues.

Source of Strength

In accordance with Federal Reserve policy, the Company is expected to act as a source of financial and managerial strength to the Bank. Section 616 of the Dodd-Frank Act codifies the requirement that bank holding companies serve as a source of financial strength to their subsidiary depository institutions. Under this policy, the holding company is expected to commit resources to support its bank subsidiary, including at times when the holding company may not be in a financial position to provide it. As discussed below, the Company could be required to guarantee the capital plan of the Bank if it becomes undercapitalized for purposes of banking regulations. Any capital loans by a bank holding company to its subsidiary bank are subordinate in right of payment to deposits and to certain other indebtedness of such subsidiary bank. The BHC Act provides that, in the event of a bank holding company's bankruptcy, any commitment by the bank holding company to a federal bank regulatory agency to maintain the capital of a bank subsidiary will be assumed by the bankruptcy trustee and entitled to priority of payment.

Regulatory agencies have promulgated regulations to increase the capital requirements for bank holding companies to a level that matches those of banking institutions. See —*Capital Adequacy and Prompt Corrective Action and Safety and Soundness*.

Annual Reporting & Examinations

The Company is required to file annual and periodic reports with the Federal Reserve and such additional information as the Federal Reserve may require. The Federal Reserve may examine a bank holding company and any of its subsidiaries and charge the Company for the cost of such an examination.

Imposition of Liability for Undercapitalized Subsidiaries

Pursuant to Section 38 of the Federal Deposit Insurance Act (the "FDIA") federal banking agencies are required to take "prompt corrective action" should an insured depository institution fail to meet certain capital adequacy standards. In the event an institution becomes "undercapitalized," it must submit a capital restoration plan. The capital restoration plan will not be accepted by the regulators unless each company "having control of" the undercapitalized institution has "guaranteed" the subsidiary's compliance with the capital restoration plan until it has been "adequately capitalized" on average during each of four consecutive calendar quarters. For purposes of this statute, the Company has control of the Bank. Under the FDIA, the aggregate guarantee liability of all companies controlling a particular institution is limited to the lesser of 5% of the depository institution's total assets at the time it became undercapitalized or the amount necessary to bring the institution into compliance with applicable capital standards. The FDIA grants greater powers to the federal banking agencies in situations where an institution becomes "significantly" or "critically" undercapitalized or fails to submit a capital restoration plan. For example, a bank holding company controlling such an institution can be required to obtain prior Federal Reserve approval of proposed distributions or might be required to consent to a merger or to divest the troubled institution or other affiliates. See — *Capital Adequacy and Prompt Corrective Action and Safety and Soundness.*

Dividends

Dividends from the Bank are the Company's principal source of cash revenues. The Company's earnings and activities are affected by legislation, regulations, and local legislative and administrative bodies and decisions of courts in the jurisdictions in which we conduct business. These include limitations on the ability of the Bank to pay dividends to the Company and our ability to pay dividends to our shareholders. It is the policy of the Federal Reserve that bank holding companies should pay cash dividends on common stock only out of income available over the past year and only if prospective earnings retention is consistent with the organization's expected future needs and financial condition. This policy provides that bank holding companies should not maintain a level of cash dividends that undermines the bank holding company's ability to serve as a source of strength to its bank subsidiary. Consistent with such policy, a banking organization should have comprehensive policies on dividend payments that clearly articulate the organization's objectives and approaches for maintaining a strong capital position and achieving the objectives of the policy statement. The Company has a comprehensive dividend policy in place.

The FDIC has the authority to use its enforcement powers to prohibit a bank from paying dividends if, in its opinion, the payment of dividends would constitute an unsafe or unsound practice. Federal law also prohibits the payment of dividends by a bank that will result in the bank failing to meet its applicable capital requirements on a pro forma basis. Under applicable Massachusetts law, the Bank's board may declare from net profits cash dividends annually, semi-annually or quarterly, but not more frequently, and noncash dividends at any time, although no dividends may be declared, credited or paid so long as there is any impairment of capital stock. The MDB Commissioner's approval is required in order to authorize the payment of a dividend, if the total dividends declared in a calendar year exceed that year's net profits combined with retained net profits for the preceding two years, less any required transfer to surplus or a fund for the retirement of any preferred stock.

Federal Reserve System

Federal Reserve regulations require depository institutions to maintain reserves against certain types of deposits and other liabilities, including transaction accounts, such as interest-bearing and regular checking accounts. The Bank's required reserves can be in the form of vault cash. If vault cash does not fully satisfy the required reserves, the reserves can be in the form of a balance maintained with the Federal Reserve Bank of Boston. For 2019, the Bank's transaction accounts up to and including $16.3 million are exempt and subject to a zero percent reserve requirement. Any amount of transaction accounts greater than $16.3 million up to and including $124.2 million have a reserve requirement of 3%, and any amount of transaction accounts greater than $124.2 million have a reserve requirement of 10%. The Federal Reserve generally makes annual adjustments to the tiered reserves. The Bank is in compliance with these reserve requirements.

Transactions with Affiliates

Transactions between a bank and its affiliates are subject to certain restrictions under Sections 23A and 23B of the Federal Reserve Act (the "FRA") and the Federal Reserve's implementing Regulation W. The Company is considered an "affiliate" of the Bank under these sections. Generally, Sections 23A and 23B: (1) limit the extent to which an insured depository or its subsidiaries may engage in covered transactions (a) with an affiliate (as defined in such sections) to an amount equal to 10% of such institution's capital and surplus and (b) with all affiliates, in the aggregate, to an amount equal to 20% of such capital and surplus; and (2) require all transactions with an affiliate, whether or not covered transactions, to be on terms substantially the same, or at least as favorable to the institution or subsidiary, as the terms provided or that would be provided to a non-affiliate. The term "covered transaction" includes the making of loans to an affiliate, purchase securities issued by an affiliate, purchase of assets from an affiliate, issuance of a guarantee on behalf of an affiliate, and other similar types of transactions.

Capital Adequacy

In July 2013, the Federal Reserve, the Office of the Comptroller of the Currency ("OCC"), and the FDIC approved final rules (the "Capital Rules") establishing a new comprehensive capital framework for U.S. banking organizations. The Capital Rules generally implement the Basel Committee on Banking Supervision's (the "Basel Committee") December 2010 final capital framework referred to as "Basel III" for strengthening international capital standards. The Capital Rules revise the definitions and the components of regulatory capital, as well as address other issues affecting the numerator in banking institutions' regulatory capital ratios. The Capital Rules also address asset risk weights and other matters affecting the denominator in banking institutions' regulatory capital ratios and replace the existing general risk-weighting approach with a more risk-sensitive approach.

The Capital Rules: (i) include "Common Equity Tier 1" ("CET1") and related regulatory capital ratio of CET1 to risk-weighted assets; (ii) specify that Tier 1 capital consists of CET1 and "Additional Tier 1 capital" instruments meeting certain revised requirements; (iii) mandate that most deductions/adjustments to regulatory capital measures be made to CET1 and not to the other components of capital; and (iv) expand the scope of the deductions from and adjustments to capital as compared to existing regulations. Under the Capital Rules, for most banking organizations, including the Company, the most common form of Additional Tier 1 capital is non-cumulative perpetual preferred stock, and the most common forms of Tier 2 capital are subordinated notes and a portion of the allocation for loan and lease losses, in each case, subject to the Capital Rules' specific requirements.

Pursuant to the Capital Rules, effective January 1, 2015, the minimum capital ratios are as follows:

- 4.5% CET1 to risk-weighted assets;
- 6.0% Tier 1 capital (that is, CET1 plus Additional Tier 1 capital) to risk-weighted assets;
- 8.0% Total capital (that is, Tier 1 capital plus Tier 2 capital) to risk-weighted assets; and
- 4.0% Tier 1 capital to average consolidated assets as reported on consolidated financial statements (called "leverage ratio").

The Capital Rules also include a "capital conservation buffer," composed entirely of CET1, in addition to these minimum risk-weighted asset ratios. The capital conservation buffer is designed to absorb losses during periods of economic stress. Banking institutions that do not hold the requisite capital conservation buffer will face constraints on dividends, capital instrument repurchases, interest payments on capital instruments and discretionary bonus payments based on the amount of the shortfall. Thus, the capital standards applicable to the Company include an additional capital conservation buffer of 2.5% of CET1, effectively resulting in minimum ratios inclusive of the capital conservation buffer of (i) CET1 to risk-weighted assets of at least 7%, (ii) Tier 1 capital to risk-weighted assets of at least 8.5%, and (iii) total capital to risk-weighted assets of at least 10.5%.

The Capital Rules provide for a number of deductions from and adjustments to CET1. These include, for example, the requirement that mortgage servicing assets, deferred tax assets arising from temporary differences that could not be realized through net operating loss carrybacks, and significant investments in non-consolidated financial entities be deducted from CET1 to the extent that any one such category exceeds 10% of CET1 or all such items, in the aggregate, exceed 15% of CET1. In November 2017, the Federal Reserve finalized a rule pausing the phase-in of these deductions and adjustments for non-advanced approaches institutions. This rule is in effect pending the comment period and review of the general proposal to simplify the Capital Rules for non-advanced approaches institutions.

In addition, under the current general risk-based capital rules, the effects of accumulated other comprehensive income or loss items included in shareholders' equity (for example, mark-to-market of securities held in the available for sale portfolio) under U.S. generally accepted accounting principles ("GAAP") are reversed for the purposes of determining regulatory capital ratios. Pursuant to the Capital Rules, the effects of certain of the above items are not excluded. However, banking organizations, including the Company, that are not subject to the advanced approaches rule, could make a one-time permanent election to exclude these items. The Company made the one-time permanent election to exclude these items.

The Capital Rules also preclude certain hybrid securities, such as trust preferred securities, from inclusion in bank holding companies' Tier 1 capital, although bank holding companies that had total consolidated assets of less than $15 billion at December 31, 2009 may include trust preferred securities issued prior to May 19, 2010 as a component of Tier 1 capital.

The risk-weighting categories in the Capital Rules are standardized and include a risk-sensitive number of categories, depending on the nature of the assets, generally ranging from 0% for U.S. government and agency securities, to 1,250% for certain credit exposures, and resulting in higher risk weights for a variety of asset classes.

The Company and the Bank are in compliance with the currently applicable capital requirements. In November 2018, the federal banking agencies issued a proposed rule to simplify the regulatory capital requirements for depository institutions and their holding companies with assets of less than $10 billion that meet certain conditions. If a final rule is adopted, it would likely affect the capital requirements applicable to the Company and the Bank.

Prompt Corrective Action and Safety and Soundness

Pursuant to Section 38 of the FDIA, federal banking agencies are required to take "prompt corrective action" should a depository institution fail to meet certain capital adequacy standards. At each successive lower capital category, an insured depository institution is subject to more restrictions and prohibitions, including restrictions on growth, restrictions on interest rates paid on deposits, restrictions or prohibitions on payment of dividends, and restrictions on the acceptance of brokered deposits. For example, "well-capitalized" institutions are permitted to accept brokered deposits, but banks that are not well-capitalized are generally restricted or prohibited from accepting such deposits. Furthermore, if an insured depository institution is classified in one of the undercapitalized categories, it is required to submit a capital restoration plan to the appropriate federal banking agency, and the holding company must guarantee the performance of that plan. Based upon its capital levels, a bank that is classified as well-capitalized, adequately capitalized, or undercapitalized may be treated as though it were in the next lower capital category if the appropriate federal banking agency, after notice and opportunity for hearing, determines that an unsafe or unsound condition or an unsafe or unsound practice warrants such treatment.

For purposes of prompt corrective action, to be: (i) well-capitalized, a bank must have a total risk-based capital ratio of at least 10%, a Tier 1 risk-based capital ratio of at least 8%, a CET1 risk-based capital ratio of at least 6.5%, and a Tier 1 leverage ratio of at least 5%; (ii) adequately capitalized, a bank must have a total risk-based capital ratio of at least 8%, a Tier 1 risk-based capital ratio of at least 6%, a CET1 risk-based capital ratio of at least 4.5%, and a Tier 1 leverage ratio of at least 4% (but not otherwise meet all of the criteria to be considered "well-capitalized"); (iii) undercapitalized, a bank would have a total risk-based capital ratio of less than 8%, a Tier 1 risk-based capital ratio of less than 6%, a CET1 risk-based capital ratio of less than 4.5%, or a Tier 1 leverage ratio of less than 4% (but not otherwise meet all of the criteria to be considered "significantly" or "critically" undercapitalized); (iv) significantly undercapitalized, a bank would have a total risk-based capital ratio of less than 6%, a Tier 1 risk-based capital ratio of less than 4%, a CET1 risk-based capital ratio of less than 3%, or a Tier 1 leverage ratio of less than 3% (but not otherwise meet the criterion to be considered "critically undercapitalized"); and (v) critically undercapitalized, a bank would have a ratio of tangible equity to total assets that is less than or equal to 2%.

The Bank is currently well-capitalized, under the prompt corrective action standards.

Bank holding companies and insured banks also may be subject to potential enforcement actions of varying levels of severity by the federal banking agencies for unsafe or unsound practices in conducting their business, or for violation of any law, rule, regulation, condition imposed in writing by the agency or term of a written agreement with the agency. In more serious cases, enforcement actions may include: issuances of directives to increase capital; issuances of formal and informal agreements; impositions of civil monetary penalties; issuances of a cease and desist order that can be judicially enforced; issuances of removal and prohibition orders against officers, directors, and other institution–affiliated parties; terminations of the bank's deposit insurance; appointment of a conservator or receiver for the bank; and enforcements of such actions through injunctions or restraining orders based upon a judicial determination that the agency would be harmed if such equitable relief was not granted.

The Volcker Rule

Section 619 of the Dodd-Frank Act, commonly known as the Volcker Rule, restricts the ability of banking entities, such as the Company and the Bank, from: (i) engaging in "proprietary trading" and (ii) investing in or sponsoring certain types of funds ("Covered Funds"), subject to certain limited exceptions. Under the Volcker Rule, the term "Covered Fund" includes any issuer that would be an investment company under the Investment Company Act of 1940 (the "ICA") but for the exemptions in section 3(c)(1) and 3(c)(7) of the ICA. Collateralized loan obligation ("CLO") and collateralized debt obligation securities are generally considered ownership interests in Covered Funds, but the Volcker Rule provides, among other exemptions, an exemption for CLOs meeting certain requirements. The Company is in compliance with the Volcker Rule.

Deposit Insurance

The Bank's deposit accounts are fully insured by the Deposit Insurance Fund (the "DIF") of the FDIC up to the deposit insurance limit of $250,000 per depositor, per insured institution, per ownership category, in accordance with applicable laws and regulations.

The FDIC uses a risk-based assessment system that imposes insurance premiums based upon a risk matrix that accounts for a bank's capital level and supervisory rating (CAMELS rating). The risk matrix uses different risk categories distinguished by capital levels and supervisory ratings. The base for deposit insurance assessments is average consolidated total assets less average tangible equity. Assessment rates are calculated using formulas that take into account the risk of the institution being assessed. The FDIC may increase or decrease the assessment rate schedule in order to manage the DIF to prescribed statutory target levels. An increase in the risk category for the Bank or in the assessment rates could have an adverse effect on the Bank's, and consequently the Company's earnings. The FDIC may terminate deposit insurance if it determines the institution involved has engaged in or is engaging in unsafe or unsound banking practices, is in an unsafe or unsound condition, or has violated applicable laws, regulations, or orders. The Bank is not aware of any practice, condition, or violation that might lead to the termination of its deposit insurance.

In addition to deposit insurance assessments, the FDIA provides for additional assessments to be imposed on insured depository institutions to pay for the cost of Financing Corporation ("FICO") funding. FICO is a mixed-ownership government corporation established by the Competitive Equality Banking Act of 1987, whose sole purpose was to function as a financing vehicle for the now defunct Federal Savings & Loan Insurance Corporation. FICO assessments are adjusted quarterly to reflect changes in the assessment base of the DIF and do not vary depending upon a depository institution's capitalization or supervisory evaluation. The current annualized FICO assessment rate is less than one basis point and the rate is adjusted quarterly. These assessments will continue until FICO bonds mature later in 2019.

Depositor Preference

The FDIA provides that, in the event of the "liquidation or other resolution" of an insured depository institution, the claims of depositors of the institution, including the claims of the FDIC as subrogee of insured depositors, and certain claims for administrative expenses of the FDIC as a receiver, will have priority over other general unsecured claims against the institution. If an insured depository institution fails, insured and uninsured depositors, along with the FDIC, will have priority in payment ahead of unsecured, non-deposit creditors, including the parent bank holding company, with respect to any extensions of credit they have made to such insured depository institution.

Consumer Financial Protection

The Company and the Bank are subject to a number of federal and state consumer protection laws that govern their relationship with customers. These laws include the Consumer Financial Protection Act of 2010, Equal Credit Opportunity Act, the Fair Credit Reporting Act, the Truth in Lending Act, the Truth in Savings Act, the Electronic Fund Transfer Act, the Expedited Funds Availability Act, the Home Mortgage Disclosure Act, the Fair Housing Act, the Real Estate Settlement Procedures Act, the Fair Debt Collection Practices Act, the Right to Financial Privacy Act, the Servicemembers Civil Relief Act, and these laws' respective state-law counterparts, as well as state usury laws and laws regarding unfair and deceptive acts and practices. These and other federal laws, among other things, require disclosures of the cost of credit and terms of deposit accounts, provide substantive consumer rights, prohibit discrimination in credit transactions, regulate the use of credit report information, provide financial privacy protections, prohibit unfair, deceptive and abusive practices, restrict the Bank's ability to raise interest rates, and subject the Bank to substantial regulatory oversight. Violations of applicable consumer protection laws can result in significant potential liability from litigation brought by customers, including actual damages, restitution, and attorneys' fees.

Further, the Consumer Financial Protection Bureau ("CFPB") has broad rulemaking authority for a wide range of consumer financial laws that apply to all banks, including, among other things, the authority to prohibit "unfair, deceptive or abusive" acts and practices. While there are no statutory definitions for those terms, the CFPB has found an act or practice to be "unfair" when: "(i) it causes or is likely to cause substantial injury to consumers; (ii) the injury is not reasonably avoidable by consumers; and (iii) the injury is not outweighed by countervailing benefits to consumers or to competition." "Deceptive acts or practices" occur when "(i) the act or practice misleads or is likely to mislead the consumer; (ii) the consumer's interpretation is reasonable under the circumstances; and (iii) the misleading act or practice is material." Finally, an act or practice is "abusive" when it: "(i) materially interferes with the ability of a consumer to understand a term or condition of a consumer financial product or service; or (ii) takes unreasonable advantage of (a) a consumer's lack of understanding of the material risks, costs, or conditions of the product or service; (b) a consumer's inability to protect his or her interests in selecting or using a consumer financial product or service; or (c) a consumer's reasonable reliance on a covered person to act in his or her interests."

Neither the Dodd-Frank Act, nor the individual consumer financial protection laws prevent states from adopting stricter consumer protection standards.

Community Reinvestment Act

The Community Reinvestment Act of 1977 (the "CRA"), requires depository institutions to assist in meeting the credit needs of their market areas consistent with safe and sound banking practice. Under the CRA, each depository institution is required to help meet the credit needs of its market areas by, among other things, providing credit to low and moderate income individuals and communities. These factors are also considered in evaluating mergers, acquisitions and applications to open a branch or facility. The applicable federal banking agencies regularly conduct CRA examinations to assess the performance of financial institutions and assign one of four ratings to the institution's records of meeting the credit needs of its community. The Bank received a "Satisfactory" rating during its last examination in August 2017.

Insider Credit Transactions

Section 22(h) of the FRA and its implementing Regulation O restricts loans to directors, executive officers, and principal shareholders of a bank or its affiliates, and companies and political or campaign committees controlled by such persons ("insiders"). Under Section 22(h), a loan by a bank to any insider may not exceed, together with all other outstanding loans to such person and any company or political or campaign committee controlled by such person, the bank's loan-to-one-borrower limit. Loans to insiders above specified amounts must receive the prior approval of the board of directors. Further, under Section 22(h) of the FRA, loans to insiders must be made on terms substantially the same as offered in comparable transactions to other persons, except that such insiders may receive preferential loans made under a benefit or compensation program that is widely available to the bank's (or, if applicable, the bank affiliate's) employees and does not give preference to the insider over the employees. Section 22(g) of the FRA places additional limitations on loans to executive officers. A violation of these restrictions may result in the assessment of substantial civil monetary penalties on the affected bank or any officer, director, employee, agent, or other person participating in the conduct of the affairs of that bank, the imposition of a cease and desist order, and other regulatory sanctions.

Financial Privacy

The Company is subject to federal laws, including the Gramm-Leach-Bliley Act (the "GLBA"), and certain state laws containing consumer privacy protection provisions. These provisions limit the ability of banks and other financial institutions to disclose nonpublic information about consumers to affiliated and non-affiliated third parties and limit the reuse of certain consumer information received from non-affiliated financial institutions. These provisions require notice of privacy policies to customers and, in some circumstances, allow consumers to prevent disclosure of certain nonpublic personal information to affiliates or non-affiliated third parties by means of "opt out" or "opt in" authorizations.

Financial Data Security

The GLBA requires that financial institutions implement comprehensive written information security programs that include administrative, technical, and physical safeguards to protect consumer information. Further, pursuant to interpretive guidance issued under the GLBA and certain state laws, financial institutions are required to notify customers and regulators of security breaches that result in unauthorized access to their nonpublic personal information.

Incentive Compensation

The Dodd-Frank Act requires the federal banking agencies and the Securities and Exchange Commission (the "SEC") to establish joint regulations or guidelines prohibiting incentive-based payment arrangements at specified regulated entities, including the Company and the Bank, with at least $1 billion in total consolidated assets that encourage inappropriate risks by providing an executive officer, employee, director or principal shareholder with excessive compensation, fees, or benefits that could lead to material financial loss to the entity. The federal banking agencies and the SEC most recently proposed such regulations in 2016, but the regulations have not yet been finalized. If the regulations are adopted in the form initially proposed, they will restrict the manner in which executive compensation is structured.

The Dodd-Frank Act also requires publicly traded companies to give shareholders a non-binding vote on executive compensation and on so-called "golden parachute" payments in connection with approvals of mergers and acquisitions.

Anti-Money Laundering Initiatives and the USA PATRIOT Act

Under Title III of the USA PATRIOT Act, all financial institutions are required to take certain measures to identify their customers, prevent money laundering, monitor customer transactions, and report suspicious activity to U.S. law enforcement agencies. Financial institutions also are required to respond to requests for information from federal banking agencies and law enforcement agencies. Information sharing among financial institutions for the above purposes is encouraged by an exemption granted to complying financial institutions from the privacy provisions of the GLBA and other privacy laws. Financial institutions that hold correspondent accounts for foreign banks or provide private banking services to foreign individuals are required to take measures to avoid dealing with certain foreign individuals or entities, including foreign banks with profiles that raise money laundering concerns, and are prohibited from dealing with foreign "shell banks" and persons from jurisdictions of particular concern. The primary federal banking agencies and the Secretary of the U.S. Department of the Treasury have adopted regulations to implement several of these provisions. All financial institutions also are required to establish internal anti-money laundering programs. The effectiveness of a financial institution in combating money laundering activities is a factor to be considered in any application submitted by the financial institution under the Bank Merger Act. The Company has a Bank Secrecy Act and USA PATRIOT Act compliance program commensurate with its risk profile.

The Fair Credit Reporting Act's Red Flags Rule requires financial institutions with covered accounts (e.g., consumer bank accounts and loans) to develop, implement, and administer an identity theft prevention program. This program must include reasonable policies and procedures to detect suspicious patterns or practices that indicate the possibility of identity theft, such as inconsistencies in personal information or changes in account activity.

Office of Foreign Assets Control ("OFAC") Regulation

The Office of Foreign Assets Control ("OFAC") of the U.S. Department of the Treasury administers and enforces economic and trade sanctions based on U.S. foreign policy and national security goals against targeted foreign countries and regimes, terrorists, international narcotics traffickers, those engaged in activities related to the proliferation of weapons of mass destruction, and other threats to the national security, foreign policy, or economy of the United States. OFAC publishes lists of individuals and companies owned or controlled by, or acting for or on behalf of, targeted countries. It also lists individuals, groups, and entities, such as terrorists and narcotics traffickers, designated under programs that are not country-specific. These are typically known as the OFAC rules based on their administration by the OFAC. The OFAC-administered sanctions targeting countries take many different forms. Generally, they contain one or more of the following elements: (i) restrictions on trade with or investment in a sanctioned country, including prohibitions against direct or indirect imports from and exports to a sanctioned country and prohibitions on "U.S. persons" engaging in financial transactions relating to making investments in, or providing investment-related advice or assistance to, a sanctioned country; and (ii) a blocking of assets in which the government or specially designated nationals of the sanctioned country have an interest by prohibiting transfers of property subject to U.S. jurisdiction (including property in the possession or control of U.S. persons). Blocked assets (property and bank deposits) cannot be paid out, withdrawn, set off, or transferred in any manner without a license from OFAC. Failure to comply with these sanctions could have serious legal and reputational consequences.

Available Information

The SEC maintains an Internet website at *http://www.sec.gov* that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Our Internet website is *http://www.cambridgetrust.com*. You can obtain on our website, free of charge, a copy of our Annual Report on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K, and any amendments to those reports, as soon as reasonably practicable after we electronically file such reports or amendments with, or furnish them to, the SEC. Our Internet website and the information contained therein or connected thereto are not intended to be incorporated into this Annual Report on Form 10-K.

Employees

As of February 28, 2019, the Company had 255 full-time and seven part-time employees. The Company's employees are not represented by any collective bargaining unit. The Company believes that its employee relations are good.

Item 1A. Risk Factors.

Deterioration in local economic conditions may negatively impact our financial performance.

The Company's success depends primarily on the general economic conditions in Eastern Massachusetts and the specific local markets in which the Company operates. Unlike larger national or other regional banks that are more geographically diversified, the Company provides banking and financial services to customers primarily in Massachusetts and New Hampshire. The local economic conditions in these areas have a significant impact on the demand for the Company's products and services as well as the ability of the Company's customers to repay loans, the value of the collateral securing loans, and the stability of the Company's deposit funding sources.

A downturn in our local economy may limit funds available for deposit and may negatively affect our borrowers' ability to repay their loans on a timely basis, both of which could have an impact on our profitability.

Variations in interest rates may negatively affect our financial performance.

The Company's earnings and financial condition are largely dependent upon net interest income, which is the difference between interest earned from loans and investments and interest paid on deposits and borrowings. The narrowing of interest rate spreads could adversely affect the Company's earnings and financial condition. The Company cannot predict with certainty, or control, changes in interest rates. Regional and local economic conditions and the policies of regulatory authorities, including monetary policies of the Federal Reserve, affect interest income and interest expense. High interest rates could also affect the amount of loans that the Company can originate because higher rates could cause customers to apply for fewer mortgages or cause depositors to shift funds from accounts that have a comparatively lower cost to accounts with a higher cost. The Company may also experience customer attrition due to competitor pricing. If the cost of interest-bearing deposits increases at a rate greater than the yields on interest-earning assets increase, then net interest income will be negatively affected. Changes in the asset and liability mix may also affect net interest income. Similarly, lower interest rates cause higher yielding assets to prepay and floating or adjustable rate assets to reset to lower rates. If the Company is not able to reduce its funding costs sufficiently, due to either competitive factors or the maturity schedule of existing liabilities, then the Company's net interest margin will decline.

Although management believes it has implemented effective asset and liability management strategies to mitigate the potential adverse effects of changes in interest rates on the Company's results of operations, any substantial or unexpected change in, or prolonged change in market interest rates could have a material adverse effect on the Company's financial condition and results of operations.

Changes in the economy or the financial markets could materially affect our financial performance.

Downturns in the United States or global economies or financial markets could adversely affect the demand for and income received from the Company's fee-based services. Revenues from the Wealth Management Group depend in large part on the level of assets under management and administration. Market volatility that leads customers to liquidate investments, as well as lower asset values, can reduce our level of assets under management and administration and thereby decrease our investment management and administration revenues.

Our loan portfolio includes loans with a higher risk of loss.

The Bank originates commercial and industrial loans, commercial real estate loans, consumer loans, and residential mortgage loans primarily within our market area. Our lending strategy focuses on residential real estate lending, as well as servicing commercial customers, including increased emphasis on commercial and industrial lending, and commercial deposit relationships. Commercial and industrial loans, commercial real estate loans, and consumer loans may expose a lender to greater credit risk than loans secured by residential real estate because the collateral securing these loans may not be sold as easily as residential real estate. In addition, commercial real estate and commercial and industrial loans may also involve relatively large loan balances to individual borrowers or groups of borrowers. These loans also have greater credit risk than residential real estate for the following reasons:

- *Commercial Real Estate Loans*. Repayment is dependent on income being generated in amounts sufficient to cover operating expenses and debt service.
- *Commercial and Industrial Loans*. Repayment is generally dependent upon the successful operation of the borrower's business.
- *Consumer Loans*. Consumer loans are collateralized, if at all, with assets that may not provide an adequate source of payment of the loan due to depreciation, damage or loss.

Any downturn in the real estate market or local economy could adversely affect the value of the properties securing the loans or revenues from the borrowers' businesses thereby increasing the risk of non-performing loans.

If our allowance for loan losses is not sufficient to cover actual loan losses, then our earnings will decrease.

The Bank's loan customers may not repay their loans according to their terms and the collateral securing the payment of these loans may be insufficient to pay any remaining loan balance. The Bank therefore may experience significant loan losses, which could have a material adverse effect on our operating results. Material additions to our allowance for loan losses would materially decrease our net income, and the charge-off of loans may cause us to increase the allowance. The Bank makes various assumptions and judgments about the collectability of the loan portfolio, including the creditworthiness of our borrowers and the value of the real estate and other assets serving as collateral for the repayment of many of our loans. We rely on our loan quality reviews, our experience, and our evaluation of economic conditions, among other factors, in determining the amount of the allowance for loan losses. If our assumptions prove to be incorrect, our allowance for loan losses may not be sufficient to cover losses inherent in our loan portfolio, resulting in additions to our allowance.

Strong competition within our industry and market area could hurt our performance and slow our growth.

The Company operates in a competitive market for both attracting deposits, which is our primary source of funds, and originating loans. Historically, our most direct competition for deposits has come from savings and commercial banks. Our competition for loans comes principally from commercial banks, savings institutions, mortgage banking firms, credit unions, finance companies, mutual funds, insurance companies, and investment banking firms. We also face additional competition from internet-based institutions and brokerage firms. Competition for loan originations and deposits may limit our future growth and earnings prospects.

The Company's ability to compete successfully depends on a number of factors, including, among other things:

- the ability to develop, maintain, and build upon long-term customer relationships based on service quality, high ethical standards and reputation;
- the ability to expand the Company's market position;
- the scope, relevance, and pricing of products and services offered to meet customer needs and demands;
- the rate at which the Company introduces new products, services, and technologies relative to its competitors;
- customer satisfaction with the Company's level of service;
- industry and general economic trends; and
- the ability to attract and retain talented employees.

Failure to perform in any of these areas could significantly weaken the Company's competitive position, which could adversely affect the Company's growth and profitability, which, in turn, could have a material adverse effect on the Company's financial condition and results of operations.

The Company is subject to extensive government regulation and supervision, which may interfere with our ability to conduct our business and may negatively impact our financial results.

The Company, primarily through the Bank, Cambridge Trust Company of New Hampshire, Inc., and certain non-bank subsidiaries, are subject to extensive federal and state regulation and supervision. Banking regulations are primarily intended to protect depositors' funds, the DIF and the safety and soundness of the banking system as a whole, not shareholders. These laws and regulations affect the Company's lending practices, capital structure, investment practices, dividend policy, and growth, among other things. Congress and federal and state banking agencies continually review banking laws, regulations, and policies for possible changes. Changes to statutes, regulations, or regulatory policies, including changes in interpretation or implementation of statutes, regulations, or policies, could affect the Company in substantial and unpredictable ways. Such changes could subject the Company to additional costs, limit the types of financial services and products the Company may offer, and/or limit the pricing the Company may charge on certain banking services, among other things. Compliance personnel and resources may increase our costs of operations and adversely impact our earnings.

Failure to comply with laws, regulations, or policies could result in sanctions by regulatory agencies, civil money penalties, and/or reputation damage, which could have a material adverse effect on our business, financial condition, and results of operations. While the Company has policies and procedures designed to prevent any such violations, there can be no assurance that such violations will not occur.

State and federal banking agencies periodically conduct examinations of our business, including for compliance with laws and regulations, and our failure to comply with any supervisory actions to which we are or become subject as a result of such examinations may adversely affect our business.

Federal and state regulatory agencies periodically conduct examinations of our business, including our compliance with laws and regulations. If, as a result of an examination, an agency were to determine that the financial, capital resources, asset quality, earnings prospects, management, liquidity, or other aspects of any of our operations had become unsatisfactory or violates any law or regulation, such agency may take certain remedial or enforcement actions it deems appropriate to correct any deficiency. Remedial or enforcement actions include the power to enjoin "unsafe or unsound" practices, to require affirmative actions to correct any conditions resulting from any violation or practice, to issue an administrative order that can be judicially enforced against a bank, to direct an increase in the bank's capital, to restrict the bank's growth, to assess civil monetary penalties against a bank's officers or directors, and to remove officers and directors. In the event that the FDIC concludes that, among other things, our financial condition cannot be corrected or that there is an imminent risk of loss to our depositors, it may terminate our deposit insurance. The CFPB also has authority to take enforcement actions, including cease-and desist orders or civil monetary penalties, if it finds that we offer consumer financial products and services in violation of federal consumer financial protection laws.

If we are unable to comply with future regulatory directives, or with the terms of any future supervisory requirements to which we may become subject, then we could become subject to a variety of supervisory actions and orders, including cease and desist orders, prompt corrective actions, memoranda of understanding, and other regulatory enforcement actions. Such supervisory actions could, among other things, impose greater restrictions on our business, as well as our ability to develop any new business. The Company could also be required to raise additional capital, or dispose of certain assets and liabilities within a prescribed time period, or both. Failure to implement remedial measures as required by financial regulatory agencies could result in additional orders or penalties from federal and state regulators, which could trigger one or more of the remedial actions described above. The terms of any supervisory action and associated consequences with any failure to comply with any supervisory action could have a material negative effect on our business, operating flexibility, and overall financial condition.

The Company is subject to liquidity risk, which could adversely affect net interest income and earnings.

The purpose of the Company's liquidity management is to meet the cash flow obligations of its customers for both deposits and loans. The primary liquidity measurement the Company utilizes is called basic surplus, which captures the adequacy of the Company's access to reliable sources of cash relative to the stability of its funding mix of average liabilities. This approach recognizes the importance of balancing levels of cash flow liquidity from short- and long-term securities with the availability of dependable borrowing sources which can be accessed when necessary. However, competitive pressure on deposit pricing could result in a decrease in the Company's deposit base or an increase in funding costs. In addition, liquidity will come under additional pressure if loan growth exceeds deposit growth. These scenarios could lead to a decrease in the Company's basic surplus measure below the minimum policy level of 5%. To manage this risk, the Company has the ability to purchase brokered certificates of deposit, borrow against established borrowing facilities with other banks (Federal funds), and enter into repurchase agreements with investment companies. Depending on the level of interest rates, the Company's net interest income, and therefore earnings, could be adversely affected.

Our ability to service our debt, pay dividends, and otherwise pay our obligations as they come due is substantially dependent on capital distributions from our subsidiary.

The Company is a separate and distinct legal entity from its subsidiary, the Bank. It receives substantially all of its revenue from dividends from the Bank. These dividends are the principal source of funds to pay dividends on the Company's common stock. Various federal and/or state laws and regulations limit the amount of dividends that the Bank may pay to the Company. Also, the Company's right to participate in a distribution of assets upon a subsidiary's liquidation or reorganization is subject to the prior claims of the subsidiary's depositors and certain other creditors. In the event the Bank is unable to pay dividends to the Company, the Company may not be able to service debt, pay obligations, or pay dividends on the Company's common stock. The inability to receive dividends from the Bank could have a material adverse effect on the Company's business, financial condition, and results of operations.

A breach of information security, including cyber-attacks, could disrupt our business and impact our earnings.

The Company depends upon data processing, communication, and information exchange on a variety of computing platforms and networks and over the internet. In addition, we rely on the services of a variety of vendors to meet our data processing and communication needs. Despite existing safeguards, we cannot be certain that all of our systems are free from vulnerability to attack or other technological difficulties or failures. If information security is breached or difficulties or failures occur, despite the controls we and our third party vendors have instituted, information can be lost or misappropriated, resulting in financial loss or costs to us, reputational harm, or damages to others. Such costs or losses could exceed the amount of insurance coverage, if any, which would adversely affect our earnings.

The Company may be adversely affected by fraud.

The Company is inherently exposed to operational risk in the form of theft and other fraudulent activity by employees, customers, and other third parties targeting the Company and/or the Company's customers or data. Such activity may take many forms, including check fraud, electronic fraud, wire fraud, phishing, social engineering, and other dishonest acts.

Although the Company devotes substantial resources to maintaining effective policies and internal controls to identify and prevent such incidents, given the increasing sophistication of possible perpetrators, the Company may experience financial losses or reputational harm as a result of fraud.

The Company continually encounters technological change and the failure to understand and adapt to these changes could hurt our business.

The financial services industry is continually undergoing rapid technological change with frequent introductions of new technology-driven products and services. The effective use of technology increases efficiency and enables financial institutions to better serve customers and to reduce costs. The Company's future success depends, in part, upon its ability to address the needs of its customers by using technology to provide products and services that will satisfy customer demands, as well as to create additional efficiencies in the Company's operations. Many of the Company's competitors have substantially greater resources to invest in technological improvements. The Company may not be able to effectively implement new technology-driven products and services or be successful in marketing these products and services to its customers. Failure to successfully keep pace with technological changes affecting the financial services industry could have a material adverse impact on the Company's business and, in turn, the Company's financial condition and results of operations.

The Company relies on third parties to provide key components of its business infrastructure.

The Company relies on third parties to provide key components for its business operations, such as data processing and storage, recording and monitoring transactions, online banking interfaces and services, internet connections, and network access. While the Company selects these third-party vendors carefully, it does not control their actions. Any problems caused by these third parties, including those resulting from breakdowns or other disruptions in communication services provided by a vendor, failure of a vendor to handle current or higher volumes, cyber-attacks and security breaches at a vendor, failure of a vendor to provide services for any reason, or poor performance of services by a vendor, could adversely affect the Company's ability to deliver products and services to its customers and otherwise conduct its business. Financial or operational difficulties of a third-party vendor could also hurt the Company's operations if those difficulties interfere with the vendor's ability to serve the Company. Replacing these third-party vendors could create significant delays and expense that adversely affect the Company's business and performance.

The possibility of the economy's return to recessionary conditions and the possibility of further turmoil or volatility in the financial markets would likely have an adverse effect on our business, financial position, and results of operations.

The economy in the United States and globally has experienced volatility in recent years and may continue to experience such volatility for the foreseeable future. There can be no assurance that economic conditions will not worsen. Unfavorable or uncertain economic conditions can be caused by declines in economic growth, business activity, or investor or business confidence, limitations on the availability or increases in the cost of credit and capital, increases in inflation or interest rates, the timing and impact of changing governmental policies, natural disasters, terrorist attacks, acts of war, or a combination of these or other factors. A worsening of business and economic conditions could have adverse effects on our business, including the following:

- investors may have less confidence in the equity markets in general and in financial services industry stocks in particular, which could place downward pressure on the Company's stock price and resulting market valuation;
- economic and market developments may further affect consumer and business confidence levels and may cause declines in credit usage and adverse changes in payment patterns, causing increases in delinquencies and default rates;
- the Company's ability to assess the creditworthiness of its customers may be impaired if the models and approaches the Company uses to select, manage, and underwrite its customers become less predictive of future behaviors;
- the Company could suffer decreases in demand for loans or other financial products and services or decreased deposits or other investments in accounts with the Company;
- customers of the Company's Wealth Management Group may liquidate investments, which together with lower asset values, may reduce the level of assets under management and administration, and thereby decrease the Company's investment management and administration revenues;
- competition in the financial services industry could intensify as a result of the increasing consolidation of financial services companies in connection with current market conditions or otherwise; and
- the value of loans and other assets or collateral securing loans may decrease.

The Company is subject to other-than-temporary impairment risk, which could negatively impact our financial performance.

The Company recognizes an impairment charge when the decline in the fair value of equity, debt securities, and cost-method investments below their cost basis are judged to be other-than-temporary. Significant judgment is used to identify events or circumstances that would likely have a significant adverse effect on the future use of the investment. The Company considers various factors in determining whether an impairment is other-than-temporary, including the severity and duration of the impairment, forecasted recovery, the financial condition and near-term prospects of the investee, whether the Company has the intent to sell and whether it is more likely than not it will be forced to sell the security in question. Information about unrealized gains and losses is subject to changing conditions. The values of securities with unrealized gains and losses will fluctuate, as will the values of securities that we identify as potentially distressed. Our current evaluation of other-than-temporary impairments reflects our intent to hold securities for a reasonable period of time sufficient for a forecasted recovery of fair value. However, our intent to hold certain of these securities may change in future periods as a result of facts and circumstances impacting a specific security. If our intent to hold a security with an unrealized loss changes and we do not expect the security to fully recover prior to the expected time of disposition, we will write down the security to its fair value in the period that our intent to hold the security changes.

The risks presented by acquisitions, such as the proposed acquisition of Optima in the Merger, could adversely affect our financial condition and results of operations.

The business strategy of the Company may include growth through acquisition such as the proposed acquisition of Optima in the Merger. Any such future acquisitions will be accompanied by the risks commonly encountered in acquisitions. These risks may include, among other things:

- our ability to realize anticipated cost savings;
- the difficulty of integrating operations and personnel, the loss of key employees;
- the potential disruption of our or the acquired company's ongoing business in such a way that could result in decreased revenues, the inability of our management to maximize our financial and strategic position;
- the inability to maintain uniform standards, controls, procedures, and policies; and
- the impairment of relationships with the acquired company's employees and customers as a result of changes in ownership and management.

The Company cannot provide any assurance that we will be successful in overcoming these risks or any other problems encountered in connection with acquisitions. Our inability to overcome these risks could have an adverse effect on the achievement of our business strategy and results of operations.

The Merger is subject to the receipt of consents and approvals from governmental authorities that may delay the date of completion of the merger or impose conditions that could have an adverse effect on the Company.

Before the Merger may be completed, various approvals, waivers or consents must be obtained from state and federal governmental authorities, including the FDIC, the Federal Reserve, the Massachusetts Commissioner and the New Hampshire Commissioner. Satisfying the requirements of these governmental authorities may delay the date of completion of the Merger. In addition, these governmental authorities may impose conditions on the completion of the Merger, or require changes to the terms of the Merger. While the Company does not currently expect that any such conditions or changes would result in a material adverse effect on the Company, there can be no assurance that they will not, and such conditions or changes could have the effect of delaying completion of the Merger, or imposing additional costs on or limiting the revenues of the Company following the Merger, any of which might have a material adverse effect on the Company following the Merger. The Company and Optima are not obligated to complete the Merger should any regulatory approval contain a non-standard condition, restriction or requirement that the Company’s board of directors reasonably determines in good faith would, individually or in the aggregate, materially reduce the benefits of the merger to such a degree that the Company would not have entered into the merger agreement had such condition, restriction or requirement been known at the date of the merger agreement.

Failure to complete the Merger could negatively impact the stock price of the Company and future businesses and financial results of the Company.

If the Merger is not completed, the ongoing businesses of the Company may be adversely affected, and the Company will be subject to several risks, including the following:

- the Company will be required to pay certain costs relating to the Merger, whether or not the merger is completed, such as legal, accounting, financial advisor and printing fees; and
- matters relating to the Merger may require substantial commitments of time and resources by management of the Company, which could otherwise have been devoted to serving existing customers or other opportunities that may have been beneficial to the Company as an independent company.

In addition, if the Merger is not completed, the Company may experience negative reactions from the financial markets, and the Company may experience negative reactions from its customers and employees. The Company also could be subject to litigation related to any failure to complete the Merger or to enforcement proceedings commenced against the Company to perform its obligations under the merger agreement. If the Merger is not completed, the Company cannot assure shareholders that the risks described above will not materialize and will not materially affect the business, financial results and stock price of the Company.

The integration of the Company and Optima will present significant challenges that may result in the combined business not operating as effectively as expected or in the failure to achieve some or all of the anticipated benefits of the transaction.

The benefits and synergies expected to result from the Merger will depend in part on whether the operations of Optima can be integrated in a timely and efficient manner with those of the Bank. The Bank will face challenges in consolidating its functions with those of Optima, and integrating the organizations, procedures and operations of the two businesses. The integration of the Bank and Optima will be complex and time-consuming, and the management of both companies will have to dedicate substantial time and resources to it. These efforts could divert management’s focus and resources from serving existing customers or other strategic opportunities and from day-to-day operational matters during the integration process. Failure to successfully integrate the operations of the Bank and Optima could result in the failure to achieve some of the anticipated benefits from the transaction, including cost savings and other operating efficiencies, and the Bank may not be able to capitalize on the existing relationships of Optima to the extent anticipated, or it may take longer, or be more difficult or expensive than expected to achieve these goals. This could have an adverse effect on the business, results of operations, financial condition or prospects of the Company and/or the Bank after the transaction.

Unanticipated costs relating to the Merger could reduce the Company’s future earnings per share.

The Company and the Bank believe that each has reasonably estimated the likely costs of integrating the operations of the Bank and Optima, and the incremental costs of operating as a combined company. However, it is possible that unexpected transaction costs such as taxes, fees or professional expenses or unexpected future operating expenses such as increased personnel costs or increased taxes, as well as other types of unanticipated adverse developments, could have a material adverse effect on the results of operations and financial condition of the combined company. If unexpected costs are incurred, the Merger could have a dilutive effect on the Company’s earnings per share. In other words, if the Merger is completed, the earnings per share of the Company’s common stock could be less than anticipated or even less than if the Merger had not been completed.

The Company's earnings may not grow if we are unable to successfully attract core deposits and lending opportunities and exploit opportunities to generate fee-based income.

The Company has experienced growth, and our future business strategy is to continue to expand. Historically, the growth of our loans and deposits has been the principal factor in our increase in net-interest income. In the event that we are unable to execute our business strategy of continued growth in loans and deposits, our earnings could be adversely impacted. The Company's ability to continue to grow depends, in part, upon our ability to expand our market share, to successfully attract core deposits and identify loan and investment opportunities, as well as opportunities to generate fee-based income. Our ability to manage growth successfully will also depend on whether we can continue to efficiently fund asset growth and maintain asset quality and cost controls, as well as on factors beyond our control, such as economic conditions and interest-rate trends.

There are substantial risks and uncertainties associated with the introduction or expansion of lines of business or new products and services within existing lines of business.

From time to time, the Company may implement new lines of business or offer new products and services within existing lines of business. There are substantial risks and uncertainties associated with these efforts, particularly in instances where the markets are not fully developed. In developing and marketing new lines of business and/or new products and services, the Company may invest significant time and resources. Initial timetables for the introduction and development of new lines of business and/or new products or services may not be achieved and price and profitability targets may not prove attainable. External factors, such as compliance with regulations, competitive alternatives, and shifting market preferences, may also impact the successful implementation of a new line of business or a new product or service. Furthermore, any new line of business and/or new product or service could have a significant impact on the effectiveness of the Company's system of internal controls. Failure to successfully manage these risks in the development and implementation of new lines of business or new products or services could have a material adverse effect on the Company's business, results of operations, and financial condition.

Accounting standards periodically change and the application of our accounting policies and methods may require management to make estimates about matters that are uncertain.

The regulatory bodies that establish accounting standards, including, among others, the Financial Accounting Standards Board ("FASB") and the SEC, periodically revise or issue new financial accounting and reporting standards that govern the preparation of our consolidated financial statements. The effect of such revised or new standards on our financial statements can be difficult to predict and can materially impact how we record and report our financial condition and results of operations.

In addition, management must exercise judgment in appropriately applying many of our accounting policies and methods so they comply with generally accepted accounting principles. In some cases, management may have to select a particular accounting policy or method from two or more alternatives. In some cases, the accounting policy or method chosen might be reasonable under the circumstances and yet might result in our reporting materially different amounts than would have been reported if we had selected a different policy or method. Accounting policies are critical to fairly presenting our financial condition and results of operations and may require management to make difficult, subjective or complex judgments about matters that are uncertain.

Our controls and procedures may fail or be circumvented, which may result in a material adverse effect on our business.

Management regularly reviews and updates our internal controls, disclosure controls and procedures, and corporate governance policies. Any system of controls, however well designed and operated, is based in part on certain assumptions and can provide only reasonable, not absolute, assurances that the objectives of the system are met. Any failure or circumvention of the controls and procedures or failure to comply with regulations related to could have a material adverse effect on our business, results of operations and financial condition.

Legal proceedings to which we are subject or may become subject may have a material adverse impact on our financial position and results of operations.

Like many banks and other financial services organizations in our industry, we are from time to time involved in various legal proceedings and subject to claims and other actions related to our business activities brought by customers, employees and others. All such legal proceedings are inherently unpredictable and, regardless of the merits of the claims, litigation is often expensive, time-consuming, disruptive to our operations and resources, and distracting to management. If resolved against us, such legal proceedings could result in excessive verdicts and judgments, injunctive relief, equitable relief, and other adverse consequences that may affect our financial condition and how we operate our business. Similarly, if we settle such legal proceedings, it may affect our financial condition and how we operate our business. Future court decisions, alternative dispute resolution awards, matters arising due to business expansion, or legislative activity may increase our exposure to litigation and regulatory investigations. In some cases, substantial non-economic remedies or punitive damages may be sought. Although we maintain liability insurance coverage, there can be no assurance that such coverage will cover any particular verdict, judgment, or settlement that may be entered against us, that such coverage will prove to be adequate, or that such coverage will continue to remain available on acceptable terms, if at all. Legal proceedings to which we are subject or may become subject may have a material adverse impact on our financial position and results of operations.

The Company is exposed to risk of environmental liabilities with respect to properties to which we obtain title.

A significant portion of our loan portfolio is secured by real estate. In the course of our business, we may foreclose and take title to real estate and could be subject to environmental liabilities with respect to these properties. The Company may be held liable to a government entity or to third parties for property damage, personal injury, investigation, and clean-up costs incurred by these parties in connection with environmental contamination or may be required to clean up hazardous or toxic substances or chemical releases at a property. The costs associated with investigation and remediation activities could be substantial. In addition, if we are the owner or former owner of a contaminated site, we may be subject to common law claims by third parties based on damages and costs resulting from environmental contamination emanating from the property. These costs and claims could adversely affect our business, results of operations, and prospects.

The Company may be adversely affected by the soundness of other financial institutions, including the FHLB of Boston.

Our ability to engage in routine funding transactions could be adversely affected by the actions and commercial soundness of other financial institutions. Financial services companies are interrelated as a result of trading, clearing, counterparty, or other relationships. The Company has exposure to different industries and counterparties, and we routinely execute transactions with counterparties in the financial services industry, including brokers and dealers, commercial banks, investment banks, mutual and hedge funds, and other institutional clients. As a result, defaults by, or even rumors or questions about, one or more financial services companies, or the financial services industry generally, have led to market-wide liquidity problems and could lead to losses or defaults by us or by other institutions. Many of these transactions expose us to credit risk in the event of default of our counterparty or client. In addition, our credit risk may be exacerbated if the collateral held by us cannot be realized or is liquidated at prices not sufficient to recover the full amount of the loan or derivative exposure due us. There is no assurance that any such losses would not materially and adversely affect our business, financial condition, or results of operations.

The Company owns common stock of FHLB of Boston in order to qualify for membership in the FHLB system, which enables it to borrow funds under the FHLB of Boston's advance program. The carrying value and fair market value of our FHLB of Boston common stock was $6.8 million as of December 31, 2018. There are 11 branches of the FHLB, including Boston, which are jointly liable for the consolidated obligations of the FHLB system. To the extent that one FHLB branch cannot meet its obligations to pay its share of the system's debt, other FHLB branches can be called upon to make the payment. Any adverse effects on the FHLB of Boston could adversely affect the value of our investment in its common stock and negatively impact our results of operations.

The Company's common stock price may fluctuate significantly.

The market price of the Company's common stock may fluctuate significantly in response to a number of factors including, but not limited to:

- the political climate and whether the proposed policies of the current presidential administration in the U.S. that have affected market prices for financial institution stocks are successfully implemented;
- changes in securities analysts' recommendations or expectations of financial performance;
- volatility of stock market prices and volumes;
- incorrect information or speculation;
- changes in industry valuations;
- announcements regarding proposed acquisitions;
- variations in operating results from general expectations;
- actions taken against the Company by various regulatory agencies;
- changes in authoritative accounting guidance;
- changes in general domestic economic conditions such as inflation rates, tax rates, unemployment rates, labor and healthcare cost trend rates, recessions, and changing government policies, laws, and regulations; and
- severe weather, natural disasters, acts of war or terrorism, and other external events.

The issuance of our common stock in the Merger will have a dilutive effect and will reduce the voting power and relative percentage interests of current common stockholders in our earnings and market value, and there may be future sales or other dilution of the Company's equity, which may adversely affect the market price of the Company's stock.

The consideration payable in the Merger includes up to an aggregate of 765,390 of our common stock, the maximum possible number of shares of Optima common stock that may be exchanged or cancelled in the merger. The issuances of shares of our common stock in the Merger will have a dilutive effect and will reduce the voting power and relative percentage interests of current common stockholders in our earnings and market value.

Additionally, the Company is not restricted from issuing additional common stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, common stock. The Company also grants shares of common stock to employees and directors under the Company's incentive plan each year. The issuance of any additional shares of the Company's common stock or securities convertible into, exchangeable for or that represent the right to receive common stock, or the exercise of such securities could be substantially dilutive to shareholders of the Company's common stock. Holders of the Company's common stock have no preemptive rights that entitle such holders to purchase their pro rata share of any offering of shares or any class or series. Because the Company's decision to issue securities in any future offering will depend on market conditions, its acquisition activity and other factors, the Company cannot predict or estimate the amount, timing, or nature of its future offerings. Thus, the Company's shareholders bear the risk of the Company's future offerings reducing the market price of the Company's common stock and diluting their stock holdings in the Company.

The Company depends on its executive officers and key personnel to continue the implementation of our long-term business strategy and could be harmed by the loss of their services.

The Company believes that its continued growth and future success will depend in large part upon the skills of our management team. The competition for qualified personnel in the financial services industry is intense, and the loss of our key personnel, or an inability to continue to attract or retain and motivate key personnel could adversely affect our business. We cannot provide any assurance that we will be able to retain our existing key personnel, attract additional qualified personnel, or effectively manage the succession of key personnel. We have change of control agreements with our actively employed named executive officers, and the loss of the services of one or more of our executive officers or key personnel could impair our ability to continue to develop our business strategy.

The Company may be subject to more stringent capital requirements.

The Bank and the Company are each subject to capital adequacy guidelines and other regulatory requirements specifying minimum amounts and types of capital which each of the Bank and the Company must maintain. From time to time, the regulators implement changes to these regulatory capital adequacy guidelines. If we fail to meet these minimum capital guidelines and other regulatory requirements, then our financial condition would be materially and adversely affected. Any changes to regulatory capital requirements could adversely affect our ability to pay dividends, or could require us to reduce business levels or to raise capital, including in ways that may adversely affect our financial condition or results of operations.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

The Company conducts its business through 10 full-service private banking offices, including its main banking office and headquarters in Cambridge, Massachusetts, its operations center in Burlington, Massachusetts, five wealth management offices and one off-site ATM. The following table sets forth certain information regarding our properties as of December 31, 2018:

Location	Ownership	Year Opened	Year of Lease Expiration
Headquarters(1):	Leased	1890	2021(5)
1336 Massachusetts Avenue			
Cambridge, MA 02138			
Operations Center(2):	Leased	1996	2030(6)
78 Blanchard Road			
Burlington, MA 01803			
Branch Offices:			
361 Trapelo Road	Leased	2008	2023(7)
Belmont, MA 02478			
65 Beacon Street	Leased	1998	2023(8)
Boston, MA 02108			
565 Tremont Street	Leased	2012	2022(6)
Boston, MA 02118			
353 Huron Avenue	Owned	1974	NA
Cambridge, MA 02138			
415 Main Street(3)	Leased	1969	2028(7)
Cambridge, MA 02142			
1720 Massachusetts Avenue	Leased	1989	2019(6)
Cambridge, MA 02138			
75 Main Street	Owned	1990	NA
Concord, MA 01742			
1690 Massachusetts Avenue	Leased	2010	2020(6)
Lexington, MA 02420			
494 Boston Post Road	Owned	1982	NA
Weston, MA 02493			
Wealth Management Offices:			
75 State Street, 18th Floor	Leased	2013	2024(8)
Boston, MA 02109			
49 South Main Street, Suite 203(4)	Leased	1996	2025(7)
Concord, NH 03301			
1000 Elm Street, Suite 201	Leased	2015	2025(7)
Manchester, NH 03101			
One Harbour Place, Suite 240	Leased	2011	2021(7)
Portsmouth, NH 03801			
84 State Street, 7th Floor	Leased	2018	2024(8)
Boston, MA 02109			

(1) Provides full service banking services. Location of this facility moved to its current address in 1964.
(2) Location of this facility moved to its current address in 2015.
(3) Location of this branch moved to its current address in 2017.
(4) Location of this office moved to its current address in 2015.
(5) With five options (each at the Company's election) to extend the lease for five additional five year periods.
(6) With two options (each at the Company's election) to extend the lease for two additional five year periods.
(7) With three options (each at the Company's election) to extend the lease for three additional five year periods.
(8) With one option (at the Company's election) to extend the lease for one additional five year period.

Item 3. Legal Proceedings.

From time to time, the Company and its subsidiaries may be parties to various claims and lawsuits arising in the ordinary course of their normal business activities. Although the ultimate outcome of these suits, if any, cannot be ascertained at this time, it is the opinion of management that none of these matters, even if it resolved adversely to the Company, will have a material adverse effect on the Company’s consolidated financial position. The Company is not currently party to any pending material legal proceedings.

Item 4. Mine Safety Disclosures.

None.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

On October 18, 2017, shares of the Company's common stock commenced trading on the NASDAQ Stock Market under the symbol "CATC". Prior to this date the Company's shares traded on the over the counter market. The following table summarizes quarterly high and low stock price ranges, the end of quarter closing price, and dividends paid per share for the years ended December 31, 2018 and 2017:

	High	Low	Close	Dividend Paid per Share
Year ended December 31, 2018				
First Quarter	$ 90.95	$ 75.00	$ 87.30	$ 0.48
Second Quarter	$ 91.00	$ 81.28	$ 86.54	$ 0.48
Third Quarter	$ 95.06	$ 85.26	$ 89.99	$ 0.50
Fourth Quarter	$ 90.00	$ 75.51	$ 83.25	$ 0.50
Year ended December 31, 2017				
First Quarter	$ 67.00	$ 61.50	$ 65.00	$ 0.46
Second Quarter	$ 70.00	$ 64.90	$ 67.25	$ 0.46
Third Quarter	$ 72.50	$ 64.25	$ 69.75	$ 0.47
Fourth Quarter	$ 87.15	$ 69.90	$ 79.80	$ 0.47

As of February 28, 2019, there were 4,114,577 shares of the Company's common stock outstanding held by 325 holders of record.

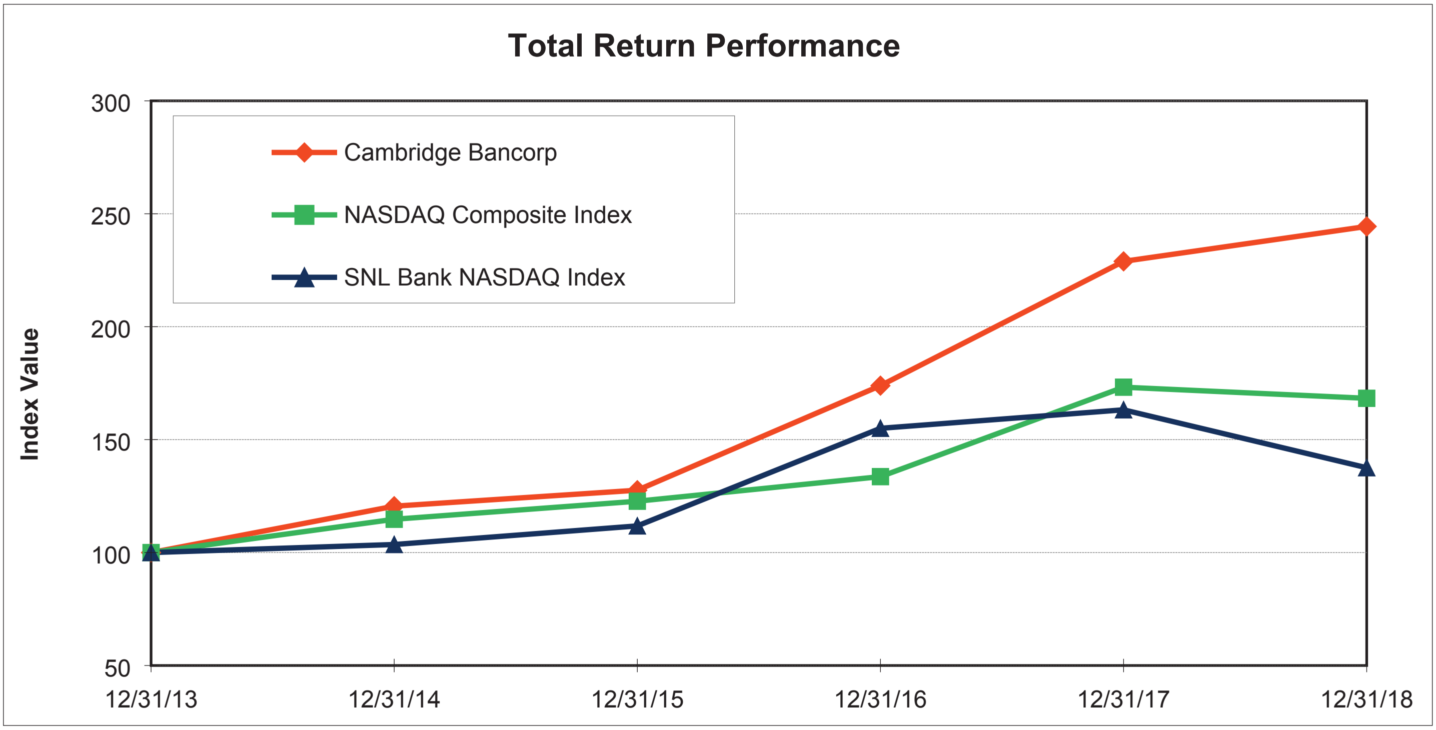
The continued payment of dividends depends upon our profitability, debt and equity structure, earnings, financial condition, need for capital and other factors, including economic conditions, regulatory restrictions, and tax considerations. We cannot guarantee the payment of dividends or that, if paid, that dividends will not be reduced or eliminated in the future.

The only funds available for the payment of dividends on our capital stock will be cash and cash equivalents held by us, dividends paid to us by the Bank, and borrowings. The Bank will be prohibited from paying cash dividends to us to the extent that any such payment would reduce the Bank's capital below required capital levels.

The Company's primary source of funds for dividends paid to shareholders is the receipt of dividends from the Bank. A discussion of the restrictions on the advance of funds or payments of dividends by the Bank to the Company is included in "Supervision and Regulation – Dividends."

Stock Performance Graph

The following compares the cumulative total shareholder return on the Company's common stock against the cumulative total return of the NASDAQ Composite Index and the SNL Bank NASDAQ Index from December 31, 2013 to December 31, 2018. The results presented assume that the value of the Company's common stock and each index was $100.00 on December 31, 2013. The total return assumes reinvestment of dividends.



			Period Ending			
Index	**12/31/13**	**12/31/14**	**12/31/15**	**12/31/16**	**12/31/17**	**12/31/18**
Cambridge Bancorp	100.00	120.54	127.61	173.90	228.93	244.40
NASDAQ Composite Index	100.00	114.75	122.74	133.62	173.22	168.30
SNL Bank NASDAQ Index	100.00	103.57	111.80	155.02	163.20	137.56

Source: S&P Global Market Intelligence © 2019

This performance graph shall not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or incorporated by reference into any filing by us under the Securities Act of 1933, as amended, or the Securities Exchange Act, except as shall be expressly set forth by specific reference in such filing.

Issuer Purchase of Equity Securities

The following table sets forth the information regarding the Company's repurchases of its common stock during the three months ended December 31, 2018:

	Total Number of Shares Repurchased (1)	Weighted Average Price Paid Per Share
Period		
October 1 to October 31, 2018	139	$ 89.99
November 1 to November 30, 2018	—	$ —
December 1 to December 31, 2018	—	$ —
Total	139	

(1) Shares repurchased by the Company relate to shares tendered by employees to pay their income tax liability on current period equity award vestings.

The Company does not currently have a stock repurchase program or plan in place.

Recent Sales of Unregistered Securities

There were no unregistered sales of equity securities during the year ended December 31, 2018.

Item 6. Selected Financial Data.

The selected consolidated financial data set forth below does not purport to be complete and should be read in conjunction with, and is qualified in its entirety by, the more detailed information including the Consolidated Financial Statements and related Notes and the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations."

	December 31, 2018	2017	2016	2015	2014
	(dollars in thousands, except per share data)				
Operating Data					
Interest Income	$ 69,055	$ 61,191	$ 57,028	$ 54,341	$ 50,371
Interest Expense	5,467	3,587	3,355	2,694	2,098
Net interest and dividend Income	63,588	57,604	53,673	51,647	48,273
Provision for Loan Losses	1,502	362	132	1,075	1,550
Noninterest Income	32,989	30,224	28,661	25,865	24,464
Noninterest Expense	63,987	59,292	56,750	53,192	49,007
Income Before Taxes	31,088	28,174	25,452	23,245	22,180
Income Taxes	7,207	13,358	8,556	7,551	7,236
Net Income	$ 23,881	$ 14,816	$ 16,896	$ 15,694	$ 14,944
Average shares outstanding, basic	4,061,529	4,030,530	3,990,343	3,938,117	3,886,692
Average shares outstanding, diluted	4,098,633	4,065,754	4,028,944	3,993,599	3,957,416
Total shares outstanding	4,107,051	4,082,188	4,036,879	4,000,181	3,940,536
Basic Earnings Per Share	$ 5.82	$ 3.64	$ 4.19	$ 3.94	$ 3.81
Diluted Earnings Per Share	$ 5.77	$ 3.61	$ 4.15	$ 3.93	$ 3.78
Dividends Declared Per Share	$ 1.96	$ 1.86	$ 1.84	$ 1.80	$ 1.68
Dividend payout ratio (1)	34%	51%	44%	46%	44%
Financial Condition Data					
Total Assets	$ 2,101,384	$ 1,949,934	$ 1,848,999	$ 1,706,201	$ 1,573,692
Total Deposits	1,811,410	1,775,400	1,686,038	1,557,224	1,370,536
Total Loans	1,559,772	1,350,899	1,320,154	1,192,214	1,080,766
Shareholders' equity	167,026	147,957	134,671	125,063	116,258
Book Value Per Share	$ 40.67	$ 36.24	$ 33.36	$ 31.26	$ 29.50
Performance Ratios					
Return on Average Assets	1.21%	0.79%	0.95%	0.95%	0.98%
Return on Average Shareholders' equity	15.35%	10.47%	12.77%	12.91%	12.87%
Total Shareholders' Equity to Total Assets	7.95%	7.59%	7.28%	7.33%	7.39%
Interest rate spread (2)	3.19%	3.16%	3.12%	3.24%	3.31%
Net Interest Margin, taxable equivalent (3)	3.33%	3.25%	3.21%	3.32%	3.37%
Efficiency ratio (4)	66.25%	67.51%	68.93%	68.62%	67.38%
Wealth Management Assets					
Market Value of Assets Under Management & Administration	$ 2,876,702	$ 3,085,669	$ 2,689,103	$ 2,449,139	$ 2,371,012
Asset Quality					
Non-Performing Loans	$ 642	$ 1,298	$ 1,676	$ 1,481	$ 1,629
Non-Performing Loans/Total Loans	0.04%	0.10%	0.13%	0.12%	0.15%
Net (Charge-Offs)/Recoveries	$ (54)	$ (303)	$ (62)	$ (153)	$ 11
Allowance/Total Loans	1.08%	1.13%	1.16%	1.27%	1.32%
Capital Ratios (5):					
Total capital	13.25%	13.75%	13.14%	13.05%	13.18%
Tier 1 capital	12.07%	12.50%	11.89%	11.80%	11.93%
Common Equity Tier 1	12.07%	12.50%	11.89%	11.80%	N/A
Tier 1 leverage capital	8.49%	8.06%	7.95%	7.75%	7.75%
Other Data:					
Number of full service offices	10	11	11	12	12
Full time equivalent employees	252	239	238	228	225

(1) Dividend payout ratio represents per share dividends declared divided by diluted earnings per share.
(2) The interest rate spread represents the difference between the fully taxable equivalent weighted-average yield on interest-earning assets and the weighted-average cost of interest-bearing liabilities for the period.
(3) The net interest margin represents fully taxable equivalent net interest income as a percent of average interest-earning assets for the period.
(4) The efficiency ratio represents noninterest expense as a percentage of the sum of net interest income and noninterest income.
(5) Capital ratios are for Cambridge Bancorp.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

OVERVIEW

Cambridge Bancorp (together with its bank subsidiary, unless the context otherwise requires, the "Company") is a Massachusetts state-chartered, federally registered bank holding company headquartered in Cambridge, Massachusetts. The Company is a Massachusetts corporation formed in 1983 and has one banking subsidiary, Cambridge Trust Company (the "Bank"), formed in 1890. At December 31, 2018, the Company had total assets of approximately $2.1 billion. Currently, the Bank operates 10 full-service private banking offices in six cities and towns in Eastern Massachusetts. The Company's Wealth Management Group has five offices, two in Boston, Massachusetts and three in New Hampshire in Concord, Manchester, and Portsmouth. The Company's Assets under Management and Administration as of December 31, 2018 were approximately $2.9 billion. The Bank's clients consist primarily of small- and medium-sized businesses and retail customers in these communities and surrounding areas throughout Massachusetts and New Hampshire.

The Company's results of operations are largely dependent on net interest income, which is the difference between the interest earned on loans and securities and interest paid on deposits and borrowings. The results of operations are also affected by the level of income and fees from wealth management services, loans, deposits, as well as operating expenses, the provision for loan losses, the impact of federal and state income taxes, and the relative levels of interest rates and economic activity.

CRITICAL ACCOUNTING POLICIES

Accounting policies involving significant judgments and assumptions by management, which have, or could have, a material impact on the carrying value of certain assets and impact income, are considered critical accounting policies.

The Company considers allowance for loan losses and income taxes to be its critical accounting policies.

Allowance for loan losses

Arriving at an appropriate level of allowance for loan losses involves a high degree of judgment. Management maintains an allowance for loan losses to absorb losses inherent in the loan portfolio. The allowance is based on assessments of the probable estimated losses inherent in the loan portfolio. Management's methodology for assessing the appropriateness of the allowance consists of several key elements, which include the specific allowances, if appropriate, for identified problem loans, formula allowance, and possibly an unallocated allowance.

The provision for loan losses and the level of the allowance for loan losses reflects management's estimate of probable loan losses inherent in the loan portfolio at the balance sheet date. Management uses a systematic process and methodology to establish the allowance for loan losses each quarter. To determine the total allowance for loan losses, management estimates the allowance needed for each of the following segments of the loan portfolio: (1) residential mortgage loans, (2) commercial mortgage loans, including multi-family loans and construction loans, (3) home equity loans and lines of credit, (4) commercial & industrial loans, and (5) consumer loans.

The establishment of the allowance for each portfolio segment is based on a process that evaluates the risk characteristics relevant to each portfolio segment and takes into consideration multiple internal and external factors.

Internal factors include, but are not limited to:

(a) the loss emergence period,

(b) historic levels and trends in the number and amount of loans on non-accrual and past due, charge-offs, delinquencies, risk ratings, and foreclosures,

(c) level and changes in industry, geographic, and credit concentrations,

(d) underwriting policies and adherence to such policies,

(e) the growth and vintage of the portfolios, and

(f) the experience of, and any changes in, lending and credit personnel.

External factors include, but are not limited to:

(a) conditions and trends in the local and national economy and

(b) levels and trends in national delinquent and non-performing loans.

The Bank evaluates certain loans individually for specific impairment. A loan is considered impaired when, based on current information and events, it is probable that the Bank will be unable to collect the scheduled payments of principal or interest when due according to the contractual terms of the loan agreement. Loans that experience insignificant payment delays and payment shortfalls generally are not classified as impaired. Loans are selected for evaluation based upon internal risk rating, delinquency status, or non-accrual status. A specific allowance amount is allocated to an individual loan when such loan has been deemed impaired and when the amount of the probable loss is able to be estimated. Estimates of loss may be determined by the present value of anticipated future cash flows, the loan's observable fair market value, or the fair value of the collateral, if the loan is collateral dependent.

Income Taxes

The Company and its subsidiaries file income tax returns in the U.S. federal jurisdiction, the Commonwealth of Massachusetts, the State of New Hampshire, and other states as required. Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are reflected at currently enacted income tax rates applicable to the period in which the deferred tax assets or liabilities are expected to be realized or settled. As changes in tax laws or rates are enacted, deferred tax assets and liabilities are adjusted through the provision for income taxes. Deferred tax assets are reviewed quarterly and reduced by a valuation allowance if, based upon the information available, it is more likely than not that some or all of the deferred tax assets will not be realized. Interest and penalties related to unrecognized tax benefits, if incurred, are recognized as a component of income tax expense.

In accordance with the Tax Cuts and Jobs Act of 2017 (the "Tax Act"), the Company re-measured its net deferred tax assets which resulted in a one-time non-cash write-down of its net deferred tax assets and recognized an additional income tax expense of $3.9 million for the year ended December 31, 2017. Effective in 2018, the change in tax law reduced the Company's statutory federal tax rate from 35% to 21%.

Recent Accounting Developments

See Note 3 – RECENTLY ISSUED AND ADOPTED ACCOUNTING STANDARDS to the Audited Consolidated Financial Statements for details of recently issued and adopted accounting pronouncements and their expected impact on the Company's financial statements.

RESULTS OF OPERATIONS

Results of Operations for the years ended December 31, 2018 and 2017

General. Net income increased by $9.1 million, or 61.2%, to $23.9 million for the year ended December 31, 2018, from $14.8 million for the year ended December 31, 2017, primarily due to a $4.8 million increase in net interest and dividend income after the provision for loan losses, a $2.8 million increase in noninterest income, and lower income tax expense of $6.2 million. These increases were partially offset by a $4.7 million increase in noninterest expense. The reduction in income tax expense was mainly due to the enactment of the Tax Cuts and Jobs Act of 2017, which required a one-time non-cash write-down of our net deferred tax assets of $3.9 million in 2017 and reduced the Company's statutory federal tax rate from 35% to 21% effective in 2018.

Net Interest and Dividend Income. Net interest and dividend income after provision for loan losses increased by $4.8 million, or 8.5% to $62.1 million for the year ended December 31, 2018, from $57.2 million for the year ended 2017. The increase was driven by a combination of the impact of rising interest rates and earning asset growth. Interest on loans increased by $6.6 million, or 12.7% for the year ended December 31, 2018, as compared to the same period in 2017. Total average interest-earning assets increased $106.1 million, or 5.8%, to $1.9 billion for the year ended December 31, 2018 from $1.8 billion in 2017. The Company's net interest margin, on a fully tax equivalent basis, increased eight basis points to 3.33% for the year ended December 31, 2018, as compared to 3.25% in 2017, and the net interest rate spread increased three basis points to 3.19% for the year ended December 31, 2018, as compared to 3.16% in 2017.

Interest and Dividend Income. Total interest and dividend income increased by $7.9 million, or 12.9%, to $69.1 million for the year ended December 31, 2018, from $61.2 million in 2017, primarily due to a $6.6 million increase in interest income on loans and a $940,000 increase in interest income on investment securities.

Interest Expense. Interest expense increased by $1.9 million, or 52.4% to $5.5 million for the year ended December 31, 2018, from $3.6 million in 2017, primarily due to a combination of higher interest rates and higher average interest bearing liabilities. Average cost of funds increased eight basis points to 0.28% for the year ended December 31, 2018, from 0.20% in 2017. Average interest bearing liabilities increased $42.6 million to $1.3 billion at December 31, 2018, primarily driven by an increase in average savings account balances of $52.8 million, higher average money market accounts of $24.6 million, higher average checking accounts of $15.0 million, partially offset by lower average certificates of deposits of $32.4 million, and lower average other borrowed funds of $17.4 million. We experienced an increase in the average cost of savings and money market accounts during 2018, as the Company continues to offer competitively priced products to attract new clients and deepen existing client relationships.

Provision for Loan Losses. The Company recorded a provision for loan losses of $1.5 million for the year ended December 31, 2018, compared to a provision for loan losses of $362,000 in 2017. The increase in the provision was primarily driven by strong loan growth during the year totaling $208.9 million. We recorded net charge-offs of $54,000 for the year ended December 31, 2018, as compared to net charge-offs of $303,000 during the same period in 2017. The allowance for loan losses was $16.8 million, or 1.08% of total loans outstanding at December 31, 2018, as compared to $15.3 million, or 1.13% of total loans outstanding at year end 2017.

Noninterest Income. Noninterest income increased by $2.8 million, or 9.1%, to $33.0 million for the year ended December 31, 2018, as compared to $30.2 million for the same period in 2017, primarily as a result of higher wealth management revenue and higher loan related derivative income associated with the Company's interest rate risk strategy. Noninterest income was 34.2% of total revenue for the year ended December 31, 2018. The Company's wealth management revenue is the largest component of noninterest income and increased by $2.2 million, or 9.4%, to $25.2 million for the year ended 2018, as compared $23.0 million in 2017, due to higher average assets under management during the period. Assets under Management combined with Assets under Administration were $2.9 billion at December 31, 2018, as compared to $3.1 billion at December 31, 2017. Loan related derivative income increased $871,000 for the year ended December 31, 2018, as compared to the same period in 2017, due to the volume of loan related derivative transactions executed in 2018.

The categories of Wealth Management revenues are shown in the following table:

	For the Year Ended December 31, 2018	For the Year Ended December 31, 2017
	(dollars in thousands)	
Wealth Management revenues:		
Trust and investment advisory fees	$ 24,126	$ 21,850
Asset-based revenues	24,126	21,850
Financial planning fees and other service fees	1,065	1,179
Total wealth management revenues	$ 25,191	$ 23,029

The following table presents the changes in wealth management assets under management:

	For the Year Ended December 31, 2018	For the Year Ended December 31, 2017
	(dollars in thousands)	
Wealth Management Assets under Management		
Balance at the beginning of the period	$ 2,971,322	$ 2,572,760
Gross client asset inflows	313,629	445,125
Gross client asset outflows	(490,094)	(371,274)
Net market impact	(35,310)	324,711
Balance at the end of the period	$ 2,759,547	$ 2,971,322
Weighted average management fee	0.81%	0.80%

There were no significant changes to the average fee rates and fee structure for the year ended December 31, 2018 and 2017.

Noninterest Expense. Noninterest expense increased by $4.7 million, or 7.9%, to $64.0 million for the year ended December 31, 2018, as compared to $59.3 million in 2017, primarily driven by increases in salaries and employee benefits expense, marketing expense, data processing expense, and merger related expenses. The increase in salaries and employee benefits expense of $4.8 million was driven by the combination of increased staffing to support business initiatives, higher employee benefit costs including performance-based equity compensation, and the adoption of ASU 2017-07 for the presentation of net periodic pension costs and net periodic postretirement benefit costs in 2018. The retrospective application of ASU 2017-07 for the twelve months ended December 31, 2017 resulted in a decrease in salaries and employee benefits and an increase in other expenses of approximately $252,000. The increase of $609,000 in marketing was due to costs related to Cambridge Trust's rebranding efforts, which included the development of a new brand, website, and advertising campaign. The increase of $221,000 in data processing expense was due to investments made in technology. The merger expenses of $201,000 were professional services related to the pending acquisition of Optima.

Noninterest expense increases were partially offset by lower other expenses of $880,000, primarily due to the other components of net periodic pension cost, and net periodic postretirement benefit cost recorded in other expenses for the twelve months ended December 31, 2018, as compared to the twelve months ended December 31, 2017.

Income Tax Expense. In accordance with the Tax Cuts and Jobs Act of 2017, the Company's federal statutory corporate tax rate decreased from 35% to 21% effective January 1, 2018. The Company recorded a provision for income taxes of $7.2 million for the year ended December 31, 2018, as compared to $13.4 million for the same period in 2017, reflecting effective tax rates of 23.2% and 47.4%, respectively.

Results of Operations for the years ended December 31, 2017 and 2016

General. Net income decreased by $2.1 million, or 12.3%, to $14.8 million for the year ended December 31, 2017, from $16.9 million for the year ended December 31, 2016. The decrease was primarily due to a $4.8 million increase in income tax expense and a $2.5 million increase in noninterest expense, partially offset by a $3.7 million increase in net interest and dividend income after the provision for loan losses, and a $1.6 million increase in noninterest income. The increase in income tax expense was mainly due to the enactment of the Tax Act. The change in tax law will reduce the statutory federal tax rate from 35% to 21% effective in 2018 and required the Company to take a one-time non-cash write-down of its net deferred tax assets of $3.9 million, as these deferred tax assets were required to be re-measured using the new lower tax rate in 2017.

Net Interest and Dividend Income. Net interest and dividend income after provision for loan losses increased by $3.7 million, or 6.9% to $57.2 million for the year ended December 31, 2017, from $53.5 million for the year ended December 31, 2016. The increase in net interest and dividend income after provision for loan losses was primarily due to higher average loan balances. Interest on loans increased by $3.0 million, or 6.1% for the year ended December 31, 2017, as compared to the year ended December 31, 2016. Total average interest-earning assets increased $97.9 million, or 5.7%, to $1.8 billion for the year ended December 31, 2017 from $1.7 billion in 2016. The Company's net interest margin, on a fully tax equivalent basis, increased four basis points to 3.25% for the year ended December 31, 2017, as compared to 3.21% in 2016, and the net interest rate spread increased four basis points to 3.16% for the year ended December 31, 2017, compared to 3.12% in 2016.

Interest and Dividend Income. Total interest and dividend income increased by $4.2 million, or 7.3%, to $61.2 million for the year ended December 31, 2017, from $57.0 million in 2016. The increase in interest and dividend income was primarily due to a $3.0 million increase in interest income on loans and a $1.0 million increase in interest income on investment securities. Total average interest-earning assets increased $97.9 million, or 5.7%, to $1.8 billion for the year ended December 31, 2017 from $1.7 billion in 2016.

Interest Expense. Interest expense increased by $232,000, or 6.9%, to $3.6 million for the year ended December 31, 2017, from $3.4 million in 2016. The increase was primarily the result of a $69.5 million increase in the average balance of interest-bearing liabilities. The average cost of interest bearing liabilities remained unchanged from 2016 and stood at 0.29%.

Provision for Loan Losses. The Company recorded a provision for loan losses of $362,000 for the year ended December 31, 2017, compared to a provision for loan losses of $132,000 in 2016. We recorded net charge-offs of $303,000 for the year ended December 31, 2017, compared to net charge-offs of $62,000 during 2016. The allowance for loan losses was $15.3 million, or 1.13% of total loans outstanding at December 31, 2017, as compared to $15.3 million, or 1.16% of total loans outstanding at year end 2016.

Noninterest Income. Noninterest income increased by $1.6 million, or 5.5%, to $30.2 million for the year ended December 31, 2017, as compared to $28.7 million for the year ended December 31, 2016, primarily as a result of higher wealth management revenue. The Company's wealth management revenue is the largest component of noninterest income and increased by $2.6 million, or 12.9%, to $23.0 million for the year ended 2017, as compared to $20.4 million in 2016 due to a combination of market appreciation and net new business. Assets under Management combined with Assets under Administration were $3.1 billion at December 31, 2017 compared to $2.7 billion at December 31, 2016.

The categories of wealth management revenues are shown in the following table:

	For the Year Ended December 31,	
	2017	**2016**
	(dollars in thousands)	
Wealth Management revenues:		
Trust and investment advisory fees	$ 21,850	$ 19,346
Asset-based revenues	21,850	19,346
Financial planning fees and other service fees	1,179	1,043
Total wealth management revenues	$ 23,029	$ 20,389

The following table presents the changes in wealth management assets under management:

	For the Year Ended December 31,	
	2017	2016
	(dollars in thousands)	
Wealth management assets under management		
Balance at the beginning of the period	$ 2,572,760	$ 2,329,208
Gross client asset inflows	445,125	506,173
Gross client asset outflows	(371,274)	(312,604)
Net market impact	324,711	49,983
Balance at the end of the period	$ 2,971,322	$ 2,572,760
Weighted average management fee	0.80%	0.79%

There were no significant changes to the average fee rates and fee structure for the year ended December 31, 2017 and 2016.

Noninterest Expense. Noninterest expense increased by $2.5 million, or 4.5%, to $59.3 million for the year ended December 31, 2017, as compared to $56.8 million in 2016, primarily driven by higher salaries and benefits expense and professional services. The increase in salaries and benefits expense of $1.9 million is primarily due to annual merit increases, increased staffing to support business initiatives, and higher employee benefit costs. The increase in professional services of $980,000 is a result of increased recruitment fees, legal costs, audits and exams, compensation consulting, marketing consulting, training and development, and costs associated with the registration of our securities with the SEC.

Noninterest expense increases were partially offset by decreases in occupancy and equipment expense of $217,000 and lower FDIC insurance expense of $205,000 for the year ended December 31, 2017, as compared to 2016.

Income Tax Expense. In accordance with the Tax Act, the Company re-measured its net deferred tax assets which resulted in a one-time non-cash write-down of its net deferred tax assets and recognized an additional income tax expense of $3.9 million for the year ended December 31, 2017. The Company recorded a provision for income taxes of $13.4 million for the year ended December 31, 2017, compared to a provision for income taxes of $8.6 million for 2016, reflecting effective tax rates of 47.41%, and 33.62%, respectively. The Company also recognized $221,000 of tax benefit resulting from the adoption of new accounting guidance for share-based payments during 2017.

Results of Operations for the years ended December 31, 2016 and 2015

General. Net income increased $1.2 million, or 7.7%, to $16.9 million for the year ended December 31, 2016, from $15.7 million for the year ended December 31, 2015. The increase was primarily due to a $3.0 million increase in net interest and dividend income after the provision for loan losses, a $2.8 million increase in noninterest income, partially offset by a $3.6 million increase in noninterest expense, and a $1.0 million increase in income tax expense.

Net Interest and Dividend Income. Net interest and dividend income after provision for loan losses increased by $3.0 million to $53.5 million for the year ended December 31, 2016, from $50.6 million for the year ended December 31, 2015. The increase in net interest and dividend income after provision for loan losses was primarily due to strong loan growth in both 2016 and 2015. Interest income on loans increased by $3.4 million, or 7.5%. Total average interest-earning assets increased to $1.7 billion for the year ended December 31, 2016, from $1.6 billion for the year ended December 31, 2015. The Company's net interest margin, on a fully taxable basis, decreased 11 basis points to 3.21% for the year ended December 31, 2016, compared to 3.32% for the year ended December 31, 2015, and our net interest rate spread decreased 12 basis point to 3.12% for the year ended December 31, 2016, compared to 3.24% for the year ended December 31, 2015.

Interest and Dividend Income. Total interest and dividend income increased $2.7 million, or 4.9%, to $57.0 million for the year ended December 31, 2016, from $54.3 million for the year ended December 31, 2015. The increase in interest and dividend income was primarily due to a $3.4 million increase in interest income on loans, partially offset by a $720,000 decrease in interest income on investment securities. The increase in interest income on loans resulted primarily from a $119.2 million increase in the average balance of loans.

Interest Expense. Interest expense increased $661,000, or 24.5%, to $3.4 million for the year ended December 31, 2016, from $2.7 million for the year ended December 31, 2015. The increase was driven by a $76.8 million increase in the average balance of interest-bearing liabilities as well an increase in the average cost of interest bearing liabilities of four basis points to 0.29% from 0.25%.

Interest expense on interest-bearing deposits increased by $801,000 to $3.3 million for the year ended December 31, 2016, from $2.5 million for the year ended December 31, 2015. This increase was primarily due to an increase of $151.9 million in the average balance of interest-bearing deposits to $1.2 billion at December 31, 2016, from $1.0 billion at December 31, 2015. The average cost of interest-bearing deposits remained low at 0.28% for the year ended December 31, 2016, compared to 0.24% for the year ended December 31, 2015. The average cost of certificates of deposits increased slightly during the year ended December 31, 2016 as compared to the year ended December 31, 2015, and we experienced an increase in the average cost of savings accounts for the year ended December 31, 2016, as compared to the year ended December 31, 2015 as the Bank has been able to grow these products and attract new relationships.

Provision for Loan Losses. The Company recorded a provision for loan losses of $132,000 for the year ended December 31, 2016, compared to a provision for loan losses of $1.1 million for the year ended December 31, 2015. The decrease in provision expense is primarily due to the change in the allowance methodology that occurred during 2016. We recorded net charge-offs of $62,000 for the year ended December 31, 2016, compared to net charge-offs of $153,000 during the year ended December 31, 2015. The allowance for loan losses was $15.3 million, or 1.16% of total loans, at December 31, 2016, compared to $15.2 million, or 1.27% of total loans, at December 31, 2015.

Noninterest Income. Noninterest income increased $2.8 million to $28.7 million in 2016, compared to $25.9 million in 2015. The Company's wealth management revenue is the largest component of noninterest income and increased by $1.1 million, or 6.0%, to $20.4 million compared, to $19.2 million for 2015. Assets under Management combined with Assets under Administration were $2.7 billion at year-end 2016, compared to $2.4 billion at year-end 2015.

The categories of wealth management revenues are shown in the following table:

	For the Year Ended December 31, 2016	2015
	(dollars in thousands)	
Wealth management revenues		
Trust and investment advisory fees	$ 19,346	$ 18,388
Asset-based revenues	19,346	18,388
Financial planning fees and other service fees	1,043	854
Total wealth management revenues	$ 20,389	$ 19,242

The following table presents the changes in wealth management assets under management:

	For the Year Ended December 31, 2016	2015
	(dollars in thousands)	
Wealth management assets under management		
Balance at the beginning of the period	$ 2,329,208	$ 2,290,227
Gross client asset inflows	506,173	382,026
Gross client asset outflows	(312,604)	(374,692)
Net market impact	49,983	31,647
Balance at the end of the period	$ 2,572,760	$ 2,329,208
Weighted average management fee	0.79%	0.79%

There were no significant changes to the average fee rates and fee structure for the year ended December 31, 2016 and 2015.

Noninterest Expense. Noninterest expense increased $3.6 million to $56.8 million for the year ended December 31, 2016, from $53.2 million for the year ended December 31, 2015. This increase was primarily the result of strategic new hires to support business growth, coupled with higher expenses related to long-term equity compensation and health care benefits. The increase of $307,000 in occupancy and equipment for the year is the result of increased cost of facilities and amortization of leasehold improvements. The increase of $217,000 in data processing expense is attributable to increased transaction volumes and new products. The increase of $134,000 in professional services is primarily the result of higher consulting fees. The increases in noninterest expense categories were partially offset by lower marketing expenses of $674,000 for 2016.

Income Tax Expense. The Company recorded a provision for income taxes of $8.6 million for the year ended December 31, 2016, compared to a provision for income taxes of $7.6 million for the year ended December 31, 2015, reflecting effective tax rates of 33.62% and 32.49%, respectively. The effective tax rate was reduced from the statutory federal income tax rate of 35% largely as a result of the benefits of tax-exempt income, partially offset by state income tax expense. The effective tax rate for the year ended December 31, 2016, as compared to the effective tax rate for the year ended December 31, 2015, increased primarily as a result of higher state income tax expense.

CHANGES IN FINANCIAL CONDITION

Total Assets. Total assets increased $151.5 million, or 7.8%, to $2.1 billion at December 31, 2018, from $1.9 billion at December 31, 2017. The increase was primarily the result of a $208.9 million increase in total loans, a $13.8 million increase in investment securities, a $12.5 million increase in other assets, partially offset by a decrease in cash and cash equivalents of $85.1 million.

Cash and Cash Equivalents. Cash and cash equivalents decreased by $85.1 million to $18.5 million at December 31, 2018, from $103.6 million at December 31, 2017, as the Company used cash on hand to fund earning asset growth.

Investment Securities. The carrying value of total investment securities increased by $13.8 million to $451.0 million at December 31, 2018, from $437.2 million at December 31, 2017. The increase in investment securities was primarily driven by an increase of $50.7 million in held to maturity investment securities, partially offset by a decrease of $36.9 million in available for sale investment securities.

Loans. Total loans increased by $208.9 million, or 15.5%, to $1.6 billion at December 31, 2018, from $1.4 billion at December 31, 2017. The growth in total loans was due to net loan growth in the commercial real estate, residential real estate, and commercial & industrial portfolios.

- Commercial real estate loans increased $124.3 million to $758.0 million at December 31, 2018, from $633.6 million at December 31, 2017.
- Residential real estate loans increased $65.4 million to $604.3 million at December 31, 2018, from $538.9 million at December 31, 2017.
- Commercial & industrial loans increased $28.4 million to $93.7 million at December 31, 2018, from $65.3 million at December 31, 2017.

Bank-Owned Life Insurance. The Company invests in bank-owned life insurance to help offset the costs of our employee benefit plan obligations. Bank-owned life insurance also generally provides noninterest income that is nontaxable. At December 31, 2018, our investment in bank-owned life insurance was $30.9 million, a decrease of $150,000 from $31.1 million at December 31, 2017, primarily due to payment of death benefits, partially offset by increases in the cash surrender value of the policies.

Deposits. Deposits increased $36.0 million, or 2.0%, to $1.8 billion at December 31, 2018, which was primarily driven by a $66.3 million increase in money market accounts, a $38.5 million increase in savings accounts, partially offset by a $38.4 million decrease in certificates of deposits and a $31.3 million decrease in interest bearing checking accounts. Core deposits, which the Company defines as all deposits other than certificates of deposit increased $74.4 million, or 4.6%, from December 31, 2017.

Borrowings. At December 31, 2018, borrowings consisted of advances from the FHLB of Boston. Total borrowings increased $89.8 million to $93.4 million at December 31, 2018, from $3.6 million at December 31, 2017 as the Company utilized short-term borrowings to fund loan growth and replace non-core brokered certificates of deposits.

Shareholders' Equity. Total shareholders' equity increased $19.1 million, or 12.89%, to $167.0 million at December 31, 2018, from $148.0 million at December 31, 2017. The increase was primarily the result of net income of $23.9 million, an increase of $2.6 million in additional paid-in capital related to stock-based compensation, partially offset by regular dividend payments of $8.0 million for the year.

INVESTMENT SECURITIES

The Company's securities portfolio consists of securities available for sale ("AFS") and securities held to maturity ("HTM"). The largest component of the securities portfolio is mortgage-backed securities, all of which are issued by U.S. government agencies or U.S. government-sponsored enterprises.

Securities available for sale consist of certain U.S. Government Sponsored Enterprises ("GSE") and U.S. GSE mortgage-backed securities, corporate debt securities, and mutual funds. These securities are carried at fair value, and unrealized gains and losses net of applicable income taxes are recognized as a separate component of shareholders' equity. The fair value of securities available for sale totaled $168.2 million and included gross unrealized gains of $118,000 and gross unrealized losses of $4.2 million at December 31, 2018. At December 31, 2017, the fair value of securities available for sale totaled $205.0 million and included gross unrealized gains of $260,000 and gross unrealized losses of $4.2 million.

Securities classified as held to maturity consist of certain U.S. GSE and U.S. GSE mortgage-backed securities, corporate debt securities, and state, county, and municipal securities. Securities held to maturity as of December 31, 2018 are carried at their amortized cost of $282.9 million. At December 31, 2017, the amortized cost of securities held to maturity totaled $232.2 million.

The following table sets forth the fair value of available for sale investment securities, the amortized costs of held to maturity, and the percentage distribution at the dates indicated:

	December 31,					
	2018		2017		2016	
	Amount	Percent	Amount	Percent	Amount	Percent
			(dollars in thousands)			
Available for sale securities						
U.S. GSE obligations	$ 74,039	44%	$ 88,791	43%	138,709	43%
Mortgage-backed securities	89,268	53%	110,626	55%	181,299	56%
Corporate debt securities	4,856	3%	5,001	2%	5,029	1%
Mutual funds	—	—	599	0%	604	0%
Total securities available for sale	$ 168,163	100%	$ 205,017	100%	$ 325,641	100%
Held to maturity securities						
U.S. GSE obligations	$ 32,571	12%	$ 32,572	14%	$ —	0%
Mortgage-backed securities	168,118	59%	117,155	50%	696	1%
Corporate debt securities	6,972	2%	1,998	1%	—	0%
Municipal securities	75,208	27%	80,463	35%	81,806	99%
Total securities held to maturity	$ 282,869	100%	$ 232,188	100%	$ 82,502	100%
Total	$ 451,032	100%	$ 437,205	100%	$ 408,143	100%

The following tables set forth the composition and maturities of investment securities. Actual maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	Within One Year		After One, But Within Five Years		After Five, But Within Ten Years		After Ten Years		Total	
At December 31, 2018	Amortized Cost	Weighted Average Yield (1)	Amortized Cost	Weighted Average Yield (1)	Amortized Cost	Weighted Average Yield (1)	Amortized Cost	Weighted Average Yield (1)	Amortized Cost	Weighted Average Yield (1)
					(dollars in thousands)					
Available for sale securities										
U.S. GSE obligations	$ 10,004	1.1%	$ 65,000	1.5%	$ —	—	$ —	—	$ 75,004	1.4%
Mortgage-backed securities	—	—	78	5.4%	33,768	1.8%	58,425	2.0%	92,271	1.9%
Corporate debt securities	2,008	1.5%	3,007	2.5%	—	—	—	—	5,015	2.1%
Total available for sale securities	$ 12,012	1.1%	$ 68,085	1.5%	$ 33,768	1.8%	$ 58,425	2.0%	$172,290	1.7%
Held to maturity securities										
U.S. GSE obligations	$ 5,001	1.4%	$ 27,570	2.5%	$ —	—	$ —	—	$ 32,571	2.4%
Mortgage-backed securities	50	4.2%	—	—	34,434	2.4%	133,634	2.9%	168,118	2.8%
Corporate debt securities	—	—	6,972	2.6%	—	—	—	—	6,972	2.6%
Municipal securities	4,630	4.8%	13,259	4.4%	41,390	3.8%	15,929	3.6%	75,208	3.9%
Total held to maturity securities	$ 9,681	3.1%	$ 47,801	3.1%	$ 75,824	3.2%	$149,563	3.0%	$282,869	3.1%
Total	$ 21,693	2.0%	$115,886	2.2%	$109,592	2.7%	$207,988	2.7%	$455,159	2.5%

At December 31, 2017	Within One Year		After One, But Within Five Years		After Five, But Within Ten Years		After Ten Years		Total	
	Amortized Cost	Weighted Average Yield (1)	Amortized Cost	Weighted Average Yield (1)	Amortized Cost	Weighted Average Yield (1)	Amortized Cost	Weighted Average Yield (1)	Amortized Cost	Weighted Average Yield (1)
					(dollars in thousands)					
Available for sale securities										
U.S. GSE obligations	$ 14,999	1.1%	$ 75,022	1.3%	$ —	—	$ —	—	$ 90,021	1.3%
Mortgage-backed securities	93	4.7%	129	5.4%	26,319	1.7%	86,643	1.9%	113,184	1.9%
Corporate debt securities	—	—	4,034	1.7%	1,000	2.6%	—	—	5,034	1.8%
Total available for sale securities	$ 15,092	1.1%	$ 79,185	1.3%	$ 27,319	1.8%	$ 86,643	1.9%	$208,239	1.6%
Held to maturity securities										
U.S. GSE obligations	$ —	—	$ 32,572	2.2%	$ —	—	$ —	—	$ 32,572	2.2%
Mortgage-backed securities	6	4.5%	256	4.4%	25,485	2.1%	91,408	2.2%	117,155	2.2%
Corporate debt securities	—	—	1,998	2.5%	—	—	—	—	1,998	2.5%
Municipal securities	3,675	6.1%	13,320	5.7%	34,426	4.7%	29,042	4.6%	80,463	4.9%
Total held to maturity securities	$ 3,681	6.1%	$ 48,146	3.2%	$ 59,911	3.5%	$120,450	2.8%	$232,188	3.1%
Total	$ 18,773	2.1%	$127,331	2.0%	$ 87,230	3.0%	$207,093	2.4%	$440,427	2.4%

(1) Weighted Average Yield is shown on a fully taxable equivalent basis using a federal tax rate of 21% for 2018 and 35% for 2017.

Management evaluates securities for other-than-temporary impairment on at least a quarterly basis and more frequently when economic or market conditions warrant such evaluation. Consideration is given to: (1) the length of time and the extent to which the fair value has been less than cost; (2) the financial condition and near-term prospects of the issuer; and (3) the intent and ability of the Company to retain its investment in the issuer for a period of time sufficient to allow for any anticipated recovery in fair value.

As of December 31, 2018, 142 debt securities had gross unrealized losses, with an aggregate depreciation of 2.05% from the Company's amortized cost basis. The largest unrealized loss percentage of any single security was 9.79%, or $98,000, of its amortized cost. The largest unrealized dollar loss of any single security was $189,000, or 5.34%, of its amortized cost.

As of December 31, 2017, 118 debt securities and one equity security had gross unrealized losses, with an aggregate depreciation of 1.49% from the Company's amortized cost basis. The largest unrealized loss percentage of any single security was 10.90% ,or $73,000, of its amortized cost. The largest unrealized dollar loss of any single security was $185,000, or 3.71%, of its amortized cost.

LOANS

The Company's lending activities are conducted primarily in Eastern Massachusetts. The Company grants single- and multi-family residential loans, commercial & industrial ("C&I"), commercial real estate ("CRE"), construction loans, and a variety of consumer loans. Most of the loans granted by the Company are secured by real estate collateral. Repayment of the Company's residential loans are generally dependent on the health of the employment market in the borrowers' geographic areas and that of the general economy with liquidation of the underlying real estate collateral being typically viewed as the primary source of repayment in the event of borrower default. The repayment of C&I loans depends primarily on the cash flow and credit worthiness of the borrower and secondarily on the underlying collateral provided by the borrower. As borrower cash flow may be difficult to predict, liquidation of the underlying collateral securing these loans is typically viewed as the primary source of repayment in the event of borrower default. However, collateral typically consists of equipment, inventory, accounts receivable, or other business assets that may fluctuate in value, so the liquidation of collateral in the event of default is often an insufficient source of repayment. The Company's CRE loans are primarily made based on the cash flow from the collateral property and secondarily on the underlying collateral provided by the borrower, with liquidation of the underlying real estate collateral typically being viewed as the primary source of repayment in the event of borrower default. The Company's construction loans are primarily made based on the borrower's expected ability to execute and the future completed value of the collateral property, with sale of the underlying real estate collateral typically being viewed as the primary source of repayment.

The following summary shows the composition of the loan portfolio at the dates indicated:

	December 31,									
	2018	% of Total	2017	% of Total	2016	% of Total	2015	% of Total	2014	% of Total
	(dollars in thousands)									
Residential mortgage										
Mortgages - fixed rate	$ 293,267	19%	$ 298,851	22%	$ 305,404	23%	$ 338,576	29%	$ 322,780	30%
Mortgages - adjustable rate	309,656	20%	239,027	18%	228,028	17%	206,835	17%	183,796	17%
Deferred costs net of unearned fees	1,408	0%	1,042	0%	972	0%	834	0%	640	0%
Total residential mortgages	604,331	39%	538,920	40%	534,404	40%	546,245	46%	507,216	47%
Commercial mortgage										
Mortgages - nonowner occupied	654,394	42%	562,203	41%	513,578	39%	422,923	35%	370,871	35%
Mortgages - owner occupied	59,335	4%	35,343	3%	43,932	3%	43,265	4%	46,954	4%
Construction	44,146	3%	35,904	3%	58,406	4%	44,624	4%	23,879	2%
Deferred costs net of unearned fees	82	0%	199	0%	224	0%	259	0%	138	0%
Total commercial mortgages	757,957	49%	633,649	47%	616,140	46%	511,071	43%	441,842	41%
Home equity										
Home equity - lines of credit	63,421	4%	70,326	5%	70,883	6%	59,676	5%	53,492	5%
Home equity - term loans	5,665	0%	3,863	0%	3,925	0%	3,630	0%	2,934	0%
Deferred costs net of unearned fees	250	0%	255	0%	243	0%	216	0%	153	0%
Total home equity	69,336	4%	74,444	5%	75,051	6%	63,522	5%	56,579	5%
Commercial & industrial										
Commercial & industrial	93,728	6%	65,305	5%	59,638	5%	42,209	4%	49,263	5%
Deferred costs net of unearned fees	(16)	0%	(10)	0%	68	0%	175	0%	229	0%
Total commercial & industrial	93,712	6%	65,295	5%	59,706	5%	42,384	4%	49,492	5%
Consumer										
Secured	33,252	2%	37,272	3%	33,386	3%	27,390	2%	23,749	2%
Unsecured	1,171	0%	1,303	0%	1,451	0%	1,585	0%	1,873	0%
Deferred costs net of unearned fees	13	0%	16	0%	16	0%	17	0%	15	0%
Total consumer	34,436	2%	38,591	3%	34,853	3%	28,992	2%	25,637	2%
Total loans	$1,559,772	100%	$1,350,899	100%	$1,320,154	100%	$1,192,214	100%	$1,080,766	100%

Residential Mortgage. Residential real estate loans held in portfolio amounted to $604.3 million at December 31, 2018, an increase of $65.4 million, or 12.1%, from $538.9 million at December 31, 2017 and consisted of one-to-four family residential mortgage loans. The residential mortgage portfolio represented 39% and 40% of total loans at December 31, 2018 December 31, 2017, respectively.

The average loan balance outstanding in the residential portfolio was $394,000 and the largest individual residential mortgage loan outstanding was $9.0 million as of December 31, 2018. At December 31, 2018, this loan was performing in accordance with its original terms.

The Bank offers fixed and adjustable rate residential mortgage loans with maturities up to 30 years. One-to-four family residential mortgage loans are generally underwritten according to Freddie Mac guidelines, and we refer to loans that conform to such guidelines as “conforming loans.” The Bank generally originates and purchases both fixed and adjustable rate mortgage loans in amounts up to the maximum conforming loan limits as established by the Federal Housing Finance Agency, which increased to $453,100 in 2018 from $424,100 in 2017, for one-unit properties. In addition, the Bank also offers loans above conforming lending limits typically referred to as “jumbo” loans. These loans are typically underwritten to jumbo conforming guidelines; however, the Bank may choose to hold a jumbo loan within its portfolio with underwriting criteria that does not exactly match conforming guidelines. The Bank may also, from time to time, purchase residential loans that are either jumbo, conforming, or meet our Community Reinvestment Act (“CRA”) requirements. Purchases have historically been made to satisfy CRA requirements for lending to low and moderate income borrowers within the Bank’s CRA Assessment Area.

The Company does not offer reverse mortgages, nor do we offer loans that provide for negative amortization of principal, such as “Option ARM” loans, where the borrower can pay less than the interest owed on the loan, resulting in an increased principal balance during the life of the loan. We do not offer “subprime loans” (loans that are made with low down payments to borrowers with weakened credit histories typically characterized by payment delinquencies, previous charge-offs, judgments, bankruptcies, or borrowers with questionable repayment capacity as evidenced by low credit scores or high debt-burden ratios) or Alt-A loans (defined as loans having less than full documentation).

Residential real estate loans are originated both for sale to the secondary market, as well as for retention in the Bank’s loan portfolio. The decision to sell a loan to the secondary market or retain within the portfolio is determined based on a variety of factors including but not limited to the Bank’s asset/liability position, the current interest rate environment, and customer preference.

The Company was servicing mortgage loans sold to others without recourse of approximately $90.2 million at December 31, 2018 and $99.8 million at December 31, 2017.

The table below presents residential real estate loan origination activity for the periods indicated:

	December 31, 2018	December 31, 2017	December 31, 2016
	(dollars in thousands)		
Originations for retention in portfolio	$ 135,468	$ 101,307	$ 78,787
Originations for sale to the secondary market	9,431	15,663	65,283
Total	$ 144,899	$ 116,970	$ 144,070

Loans are sold with servicing retained or released. The table below presents residential real estate loan sale activity for the periods indicated:

	December 31, 2018	December 31, 2017	December 31, 2016
	(dollars in thousands)		
Loans sold with servicing rights retained	$ 1,605	$ 11,906	$ 50,022
Loans sold with servicing rights released	7,826	10,338	8,646
Total	$ 9,431	$ 22,244	$ 58,668

Loans sold with the retention of servicing typically result in the capitalization of servicing rights. Loan servicing rights are included in other assets and subsequently amortized as an offset to other income over the estimated period of servicing. The net balance of capitalized servicing rights amounted to $666,000, $793,000, and $812,000 at December 31, 2018, December 31, 2017, and December 31, 2016, respectively.

Commercial Mortgage. Commercial real estate loans were $758.0 million as of December 31, 2018, an increase of $124.3 million, or 19.6%, from $633.6 million at December 31, 2017. The commercial real estate loan portfolio represented 49% and 47% of total loans at December 31, 2018 and December 31, 2017, respectively. The average loan balance outstanding in this portfolio was $1.8 million and the largest individual commercial real estate loan outstanding was $19.0 million as of December 31, 2018. At December 31, 2018, this commercial mortgage was performing in accordance with its original terms.

Commercial real estate loans are secured by a variety of property types, with approximately 88.0% of the total at December 31, 2018 composed of multi-family dwellings, retail facilities, office buildings, commercial mixed use, lodging, and industrial and warehouse properties.

Generally, our commercial real estate loans are for terms of up to 10 years, with loan-to-values that generally do not exceed 75%. Amortization schedules are long term, and thus, a balloon payment is generally due at maturity. Under most circumstances, the Bank will offer to rewrite or otherwise extend the loan at prevailing interest rates.

Home Equity. The home equity portfolio totaled $69.3 million and $74.4 million at December 31, 2018 and December 31, 2017, respectively. The home equity portfolio represented 4% and 5% of total loans at December 31, 2018 and December 31, 2017, respectively. At December 31, 2018, our largest home equity line of credit was a $2.0 million line of credit and had an outstanding balance of $1.0 million. At December 31, 2018, this line of credit was performing in accordance with its original terms.

Home equity lines of credit are extended as both first and second mortgages on owner-occupied residential and one-to-four family investment properties in the Bank's market area. Home equity lines of credit are generally underwritten with the same criteria that we use to underwrite one-to-four family residential mortgage loans.

Our home equity lines of credit are revolving lines of credit, which generally have a term between 15 and 20 years, with draws available for the first 10 years. Our 15-year lines of credit are interest only during the first 10 years and amortize on a five-year basis thereafter. Our 20-year lines of credit are interest only during the first 10 years and amortize on a 10-year basis thereafter. We generally originate home equity lines of credit with loan-to-value ratios of up to 80% when combined with the principal balance of the existing first mortgage loan, although loan-to-value ratios may occasionally exceed 80% on a case-by-case basis. Maximum combined loan-to-values are determined based on an applicant's loan/line amount and the estimated property value. Lines of credit above $1.0 million generally will not exceed combined loan-to-value of 75%. Rates are adjusted monthly based on changes in a designated market index. We also offer home equity term loans, which are extended as second mortgages on owner-occupied residential properties in our market area. Our home equity term loans are fixed-rate second mortgage loans, which generally have a term between 5 and 20 years.

Commercial and Industrial (C&I). The commercial and industrial portfolio totaled $93.7 million at December 31, 2018, an increase of $28.4 million, or 43.5%, from $65.3 million at December 31, 2017. C&I loans represented 6% and 5% of total loans at December 31, 2018 and December 31, 2017, respectively. The average loan balance outstanding in this portfolio was $231,000 and the largest individual commercial and industrial loan outstanding was $9.4 million as of December 31, 2018. At December 31, 2018, this loan was performing in accordance with its original terms.

The Company's Innovation Banking and asset-based loans are reported within the C&I portfolio.

- At December 31, 2018, Innovation Banking loans totaled $14.6 million and the average loan balance outstanding in this portfolio was $731,000. The largest individual loan outstanding was $3.1 million and this loan was performing in accordance with its original terms.
- At December 31, 2018, asset-based loans totaled $33.2 million and the average loan balance outstanding in this portfolio was $2.7 million. The largest individual loans outstanding was $9.4 million and this loan was performing in accordance with its original terms.

The Company's C&I loan customers represent various small- and middle-market established businesses involved in professional services, accommodation and food services, health care, wholesale trade, manufacturing, distribution, retailing, and non-profits. Most clients are privately owned with markets that range from local to national in scope. Many of the loans to this segment are secured by liens on corporate assets and the personal guarantees of the principals. The Company also makes loans to entrepreneurial and technology businesses. The regional economic strength or weakness impacts the relative risks in this loan category. There is little concentration in any one business sector, and loan risks are generally diversified among many borrowers.

Consumer. The consumer loan portfolio totaled $34.4 million at December 31, 2018, a decrease of $4.2 million, or 10.8%, from $38.6 million at December 31, 2017. Consumer loans represented 2% and 3% of the total loans portfolio at December 31, 2018 and December 31, 2017, respectively. Consumer loans include secured and unsecured loans, lines of credit, and personal installment loans. Unsecured consumer loans generally have greater risk compared to longer-term loans secured by improved, owner-occupied real estate, particularly consumer loans that are secured by rapidly depreciable assets. The secured consumer loans and lines portfolio are generally fully secured by pledged assets such as bank accounts or investments.

The following table summarizes the dollar amount of loans maturing in our portfolio based on their loan type and contractual terms to maturity at December 31, 2018. The table does not include any estimate of prepayments, which can significantly shorten the average life of all loans and may cause our actual repayment experience to differ from that shown below. Demand loans, loans having no stated repayment schedule or maturity, and overdraft loans are reported as being due in one year or less.

	December 31, 2018			
	One Year or Less	One to Five Years	Over Five Years	Total
	(dollars in thousands)			
Residential mortgage	$ 1,414	$ 14,198	$ 588,719	$ 604,331
Commercial mortgage	44,053	258,126	455,778	757,957
Home equity	266	883	68,187	69,336
Commercial & Industrial	25,405	62,159	6,148	93,712
Consumer	34,374	61	1	34,436
Total	$ 105,512	$ 335,427	$ 1,118,833	$ 1,559,772

The following table summarizes the dollar amount of loans maturing in our portfolio based on whether the loan has a fixed or variable rate of interest at December 31, 2018:

	December 31, 2018			
	Fixed	Adjustable	Floating	Total
	(dollars in thousands)			
Residential mortgage	$ 293,952	$ 310,379	$ —	$ 604,331
Commercial mortgage	335,664	155,153	267,140	757,957
Home equity	5,900	—	63,436	69,336
Commercial & Industrial	26,854	3,177	63,681	93,712
Consumer	242	—	34,194	34,436
Total	$ 662,612	$ 468,709	$ 428,451	$ 1,559,772

NONPERFORMING LOANS AND TROUBLED DEBT RESTRUCTURINGS (TDRs)

The composition of nonperforming assets is as follows:

	December 31, 2018	December 31, 2017	December 31, 2016	December 31, 2015	December 31, 2014
	(dollars in thousands)				
Nonaccruals	$ 525	$ 1,148	$ 1,023	$ 1,481	$ 1,620
Loans past due > 90 days, but still accruing	—	—	232	—	9
Troubled debt restructurings	117	150	421	—	—
Total nonperforming loans	$ 642	$ 1,298	$ 1,676	$ 1,481	$ 1,629
Accruing troubled debt restructured loans	$ 6	$ 29	$ —	$ —	$ —
Nonperforming loans as a percentage of gross loans	0.04%	0.10%	0.13%	0.12%	0.15%
Nonperforming loans as a percentage of total assets	0.03%	0.07%	0.09%	0.09%	0.10%

At December 31, 2018, 2017, and 2016 impaired loans had specific reserves of $0, $93,000, and $190,000 respectively.

Nonaccrual Loans. Loans are typically placed on nonaccrual status when any payment of principal and/or interest is 90 days or more past due, unless the collateral is sufficient to cover both principal and interest and the loan is in the process of collection. The Company monitors closely the performance of its loan portfolio. In addition to the monitoring and review of loan performance internally, the Company has contracted with an independent organization to review the Company's commercial and commercial real estate loan portfolios. This independent review was performed in each of the past five years. The status of delinquent loans, as well as situations identified as potential problems, is reviewed on a regular basis by senior management.

Troubled Debt Restructurings. Loans are considered restructured in a troubled debt restructuring when the Company has granted concessions to a borrower due to the borrower's financial condition that it otherwise would not have considered. These concessions may include modifications of the terms of the debt such as deferral of payments, extension of maturity, reduction of principal balance, reduction of the stated interest rate other than normal market rate adjustments, or a combination of these concessions. Debt may be bifurcated with separate terms for each tranche of the restructured debt. Restructuring a loan in lieu of aggressively enforcing the collection of the loan may benefit the Company by increasing the ultimate probability of collection.

Restructured loans are classified as accruing or non-accruing based on management's assessment of the collectability of the loan. Loans which are already on nonaccrual status at the time of the restructuring generally remain on nonaccrual status for approximately six months or longer before management considers such loans for return to accruing status. Accruing restructured loans are placed into nonaccrual status if and when the borrower fails to comply with the restructured terms and management deems it unlikely that the borrower will return to a status of compliance in the near term.

Troubled debt restructurings are classified as impaired loans. The Company identifies loss allocations for impaired loans on an individual loan basis.

Nonperforming loans decreased during 2018 from 2017 primarily due to lower loans on nonaccrual at December 31, 2018. Nonperforming loans decreased during 2017 from 2016 primarily as a result of lower TDRs at December 31, 2017, as compared to December 31, 2016. Nonperforming loans increased during 2016 from 2015 primarily due to higher troubled debt restructurings. Nonaccrual loans decreased during 2016, primarily due to a decrease in nonperforming commercial mortgage and commercial & industrial loans.

The Company continues to monitor closely the portfolio of nonperforming loans for which management has concerns regarding the ability of the borrowers to perform. The majority of the loans are secured by real estate and are considered to have adequate collateral value to cover the loan balances at December 31, 2018 and December 31, 2017, although such values may fluctuate with changes in the economy and the real estate market.

ALLOWANCE FOR LOAN LOSSES

The Company maintains an allowance for loan losses in an amount determined by management on the basis of the character of the loans, loan performance, financial condition of borrowers, the value of collateral securing loans, and other relevant factors. We provide for loan losses based upon the consistent application of our documented allowance for loan loss methodology. All loan losses are charged to the allowance for loan losses and all recoveries are credited to it. Additions to the allowance for loan losses are provided by charges to income based on various factors which, in our judgment, deserve current recognition in estimating probable losses. We regularly review the loan portfolio, including a review of our classified assets, and make provisions for loan losses in order to maintain the allowance for loan losses in accordance with GAAP. The allowance for loan losses consists primarily of two components:

1. specific allowances established for impaired loans, as defined by GAAP. The amount of impairment provided for as a specific allowance is measured based on the deficiency, if any, between the present value of expected future cash flows discounted at the loan's effective interest rate at the time of impairment or, as a practical expedient, at the loan's observable market price or the fair value of the collateral if the loan is collateral-dependent, and the carrying value of the loan; and
2. general allowances established for loan losses on a portfolio basis for loans that do not meet the definition of impaired loans. The portfolio is grouped into homogenous pools by similar risk characteristics, primarily by loan type and regulatory classification. We apply an estimated incurred loss rate to each loan group. The loss rates applied are based upon our historical loss experience over a designated look back period adjusted, as appropriate, for the quantitative, qualitative, and environmental factors discussed below. This evaluation is inherently subjective, as it requires material estimates that may be susceptible to significant revisions based upon changes in economic and real estate market conditions.

Actual loan losses may be significantly more than the allowance for loan losses we have established, which could have a material negative effect on our financial results.

The adjustments to historical loss experience are based on our evaluation of several quantitative, qualitative, and environmental factors, including:

- the loss emergence period which represents the average amount of time between when loss events occur for specific loan types and when such problem loans are identified and the related loss amounts are confirmed through charge-offs;
- changes in any concentration of credit (including, but not limited to, concentrations by geography, industry, or collateral type);
- changes in the number and amount of non-accrual loans and past due loans;
- changes in national, state, and local economic trends;
- changes in the types of loans in the loan portfolio;
- changes in the experience and ability of personnel;
- changes in lending strategies; and
- changes in lending policies and procedures.

In addition, we may establish an unallocated allowance to provide for probable losses that have been incurred as of the reporting date but are not reflected in the allocated allowance.

We evaluate the allowance for loan losses based upon the combined total of the specific and general components. Generally, when the loan portfolio increases, absent other factors, the allowance for loan loss methodology results in a higher dollar amount of estimated probable losses than would be the case without the increase. Generally, when the loan portfolio decreases, absent other factors, the allowance for loan losses methodology results in a lower dollar amount of estimated probable losses than would be the case without the decrease. Periodically, management conducts an analysis to estimate the loss emergence period for various loan categories based on samples of historical charge-offs. Model output by loan category is reviewed to evaluate the reasonableness of the reserve levels in comparison to the estimated loss emergence period applied to historical loss experience.

We evaluate the loan portfolio on a quarterly basis and the allowance is adjusted accordingly. While we use the best information available to make evaluations, future adjustments to the allowance may be necessary if conditions differ substantially from the information used in making the evaluations. In addition, various regulatory agencies, as an integral part of their examination process, will periodically review the allowance for loan losses. Such agencies may require us to recognize additions to the allowance based on their analysis of information available to them at the time of their examination.

The following table summarizes the changes in the Company's allowance for loan losses for the years indicated:

	Year ended December 31,				
	2018	2017	2016	2015	2014
	(dollars in thousands)				
Period-end loans outstanding (net of unearned discount and deferred loan fees)	$1,559,772	$1,350,899	$1,320,154	$1,192,214	$1,080,766
Average loans outstanding (net of unearned discount and deferred loan fees)	$1,417,237	$1,333,341	$1,262,497	$1,144,965	$ 993,162
Balance of allowance for loan losses at the beginning of year	$ 15,320	$ 15,261	$ 15,191	$ 14,269	$ 12,708
Loans charged-off:					
Commercial and industrial	(73)	(284)	(71)	(124)	(20)
Commercial mortgage	—	—	—	—	—
Residential mortgage	—	—	—	(37)	(13)
Home Equity	—	—	—	(1)	—
Consumer	(36)	(39)	(33)	(16)	(12)
Total loans charged-off	$ (109)	$ (323)	$ (104)	$ (178)	$ (45)
Recovery of loans previously charged-off:					
Commercial and industrial	48	13	14	4	2
Commercial mortgage	—	—	7	8	9
Residential mortgage	—	—	13	—	—
Home Equity	—	—	1	—	—
Consumer	7	7	7	13	45
Total recoveries of loans previously charged-off:	55	20	42	25	56
Net loan (charge-offs) recoveries	$ (54)	$ (303)	$ (62)	$ (153)	$ 11
Provision charged to operating expense	1,502	362	132	1,075	1,550
Balance at end of period	$ 16,768	$ 15,320	$ 15,261	$ 15,191	$ 14,269
Ratio of net (charge-offs) recoveries during the year to average loans outstanding	(0.00)%	(0.02)%	(0.00)%	(0.01)%	0.00%
Ratio of allowance for loan losses to loans Outstanding	1.08%	1.13%	1.16%	1.27%	1.32%

The level of charge-offs depends on many factors, including the national and regional economy. Cyclical lagging factors may result in charge-offs being higher than historical levels. The allowance for loan losses increased primarily due to continued loan growth and changes in the portfolio composition. Although the allowance is allocated between categories, the entire allowance is available to absorb losses attributable to all loan categories. Management believes that the allowance for loan losses is adequate.

SOURCES OF FUNDS

General. Deposits traditionally have been our primary source of funds for our investment and lending activities. The Company also borrows from the FHLB of Boston to supplement cash flow needs, to lengthen the maturities of liabilities for interest rate risk management purposes, and to manage our cost of funds. Our additional sources of funds are scheduled payments and prepayments of principal and interest on loans and investment securities and fee income and proceeds from the sales of loans and securities.

Deposits. The Company accepts deposits primarily from customers in the communities in which our branches and offices are located, as well as from small- and medium-sized businesses and other customers throughout our lending area. We rely on our competitive pricing and products, convenient locations, and client service to attract and retain deposits. We offer a variety of deposit accounts with a range of interest rates and terms. Our deposit accounts consist of relationship checking for consumers and businesses, statement savings accounts, certificates of deposit, money market accounts, interest on lawyer trust accounts, commercial and regular checking accounts, and individual retirement accounts. Deposit rates and terms are based primarily on current business strategies, market interest rates, liquidity requirements, and our deposit growth goals. The Bank may also access the brokered deposit market for funding.

At December 31, 2018, we had a total of $93.9 million in certificates of deposit, excluding brokered deposits, of which $52.2 million had remaining maturities of one year or less. Based on historical experience and our current pricing strategy, we believe the Bank will retain a large portion of these accounts upon maturity. The Bank had total brokered deposits of $27.5 million, $52.7 million and $56.3 million at December 31, 2018, 2017, and 2016, respectively.

The following table sets forth the average balances of the Bank's deposits for the periods indicated:

	December 31,								
	2018			2017			2016		
	Average Balance	Percent	Weighted Average Rate	Average Balance	Percent	Weighted Average Rate	Amount	Percent	Weighted Average Rate
	(dollars in thousands)								
Demand deposits (non-interest bearing)	$ 521,091	29.2%	—	$ 470,871	28.2%	—	$ 454,977	28.2%	—
Interest bearing checking	409,178	23.0%	0.08%	394,132	23.6%	0.05%	365,946	22.7%	0.02%
Money Market	93,449	5.2%	1.14%	68,891	4.1%	0.15%	79,409	4.9%	0.15%
Savings	624,421	35.1%	0.78%	571,659	34.2%	0.35%	538,297	33.3%	0.23%
Retail certificates of deposit under $100,000	36,408	2.0%	0.69%	40,447	2.4%	0.49%	44,394	2.7%	0.51%
Retail certificates of deposit of $100,000 or greater	59,226	3.3%	1.27%	71,030	4.2%	0.64%	75,861	4.7%	0.63%
Wholesale certificates of deposit	38,373	2.2%	1.69%	54,933	3.3%	1.56%	56,295	3.5%	1.38%
Total	$1,782,146	100%	0.44%	$1,671,963	100%	0.23%	$1,615,179	100%	0.18%

Certificates of deposit of $100,000 or greater by maturity are as follows:

	December 31,		
	2018	2017	2016
	(dollars in thousands)		
Less than 3 months remaining	$ 7,807	$ 22,995	$ 20,363
3 to 5 months remaining	7,361	10,535	9,751
6 to 11 months remaining	14,078	6,361	8,583
12 months or more remaining	28,446	29,202	33,658
Total	$ 57,692	$ 69,093	$ 72,355

Retail certificates of deposit of $100,000 or greater totaled $57.7 million, $69.1 million, and, $72.3 million at December 31, 2018, 2017, and 2016, respectively. Interest expense on retail certificates of deposit of $100,000 or greater was $467,000, $446,000, and, $475,000 for the years ended December 31, 2018, 2017, and 2016, respectively.

The following table sets forth certificates of deposit classified by interest rate as of the dates indicated:

	December 31,		
	2018	2017	2016
	(dollars in thousands)		
Interest Rate:			
Less than 1.00%	$ 49,360	$ 75,284	$ 84,971
1.00% to 1.99%	52,888	84,546	86,191
2.00% to 2.99%	19,171	—	—
Total	$ 121,419	$ 159,830	$ 171,162

Borrowings. The Bank's borrowings consisted primarily of FHLB of Boston advances collateralized by a blanket pledge agreement on the Bank's FHLB of Boston stock and residential mortgages held in the Bank's portfolios. The Bank's borrowings with the FHLB of Boston totaled $93.4 million at December 31, 2018, an increase of $89.8 million compared to $3.6 million at December 31, 2017. The Bank's remaining borrowing capacity at the FHLB of Boston at December 31, 2018 was approximately $214.9 million. In addition, the Bank has a $10.0 million line of credit with the FHLB of Boston. See Note 11, "Borrowings," for a schedule, including related interest rates and other information.

NET INTEREST MARGIN

Net interest income represents the difference between interest earned, primarily on loans and investments, and interest paid on funding sources, primarily deposits and borrowings. Interest rate spread is the difference between the average rate earned on total interest-earning assets and the average rate paid on total interest-bearing liabilities. Net interest margin is the amount of net interest income, on a fully taxable-equivalent basis, expressed as a percentage of average interest-earning assets. The average rate earned on earning assets is the amount of annualized taxable equivalent interest income expressed as a percentage of average earning assets. The average rate paid on interest-bearing liabilities is equal to annualized interest expense as a percentage of average interest-bearing liabilities.

The following table sets forth the distribution of the Company's average assets, liabilities and shareholders' equity, and average rates earned or paid on a fully taxable equivalent basis for each of the periods indicated:

	For the Year Ended								
	December 31, 2018			**December 31, 2017**			**December 31, 2016**		
	Average Balance	**Interest Income/ Expenses (1)**	**Rate Earned/ Paid (1)**	**Average Balance**	**Interest Income/ Expenses (1)**	**Rate Earned/ Paid (1)**	**Average Balance**	**Interest Income/ Expenses (1)**	**Rate Earned/ Paid (1)**
				(dollars in thousands)					
ASSETS									
Interest-earning assets									
Loans (2)									
Taxable	$1,407,079	$ 57,941	4.12%	$1,318,284	$ 51,238	3.89%	$1,249,205	$ 48,353	3.87%
Tax-exempt	10,158	469	4.62	15,057	764	5.07	15,973	638	3.99
Securities available for sale (3)									
Taxable	194,419	3,202	1.65	248,787	4,011	1.61	334,292	5,184	1.55
Securities held to maturity									
Taxable	189,120	4,255	2.25	111,452	2,310	2.07	979	46	4.70
Tax-exempt	76,966	3,043	3.95	81,528	4,000	4.91	82,797	4,211	5.09
Cash and due from banks	45,365	595	1.31	41,888	291	0.69	35,895	114	0.32
Total interest-earning assets (4)	1,923,107	69,505	3.61%	1,816,996	62,614	3.45%	1,719,141	58,546	3.41%
Non interest-earning assets	73,330			73,532			73,559		
Allowance for loan losses	(15,857)			(15,392)			(15,371)		
Total assets	$1,980,580			$1,875,136			$1,777,329		
LIABILITIES AND SHAREHOLDERS' EQUITY									
Interest-bearing deposits									
Checking accounts	$ 409,178	$ 247	0.06%	$ 394,132	$ 131	0.03%	$ 365,946	$ 82	0.02%
Savings accounts	624,421	2,900	0.46	571,659	1,457	0.25	538,297	1,567	0.29
Money market accounts	93,449	597	0.64	68,891	103	0.15	79,409	131	0.16
Certificates of deposit	134,007	1,279	0.95	166,410	1,434	0.86	176,550	1,480	0.84
Total interest-bearing deposits	1,261,055	5,023	0.40%	1,201,092	3,125	0.26%	1,160,202	3,260	0.28%
Other borrowed funds	18,671	444	2.38	36,074	462	1.28	7,489	95	1.27
Total interest-bearing liabilities	1,279,726	5,467	0.43%	1,237,166	3,587	0.29%	1,167,691	3,355	0.29%
Non-interest-bearing liabilities									
Demand deposits	521,091			470,871			454,977		
Other liabilities	24,217			25,611			22,394		
Total liabilities	1,825,034			1,733,648			1,645,062		
Shareholders' equity	155,546			141,488			132,267		
Total liabilities & shareholders' equity	$1,980,580			$1,875,136			$ 1,777,329		
Net interest income on a fully taxable equivalent basis		64,038			59,027			55,191	
Less taxable equivalent adjustment		(737)			(1,668)			(1,697)	
Net interest income		$ 63,301			$ 57,359			$ 53,494	
Net interest spread (5)			3.19%			3.16%			3.12%
Net interest margin (6)			3.33%			3.25%			3.21%

(1) Annualized on a fully taxable equivalent basis calculated using a federal tax rate of 21% for 2018 and 35% for 2017 and 2016.
(2) Nonaccrual loans are included in average amounts outstanding.
(3) Average balances of securities available for sale calculated utilizing amortized cost.
(4) Federal Home Loan Bank stock balance and dividend income is excluded from interest-earning assets.
(5) Interest rate spread represents the difference between the weighted average yield on interest-earning assets and the weighted average cost of interest-bearing liabilities.
(6) Net interest margin represents net interest income on a fully tax equivalent basis as a percentage of average interest-earning assets.

Rate/Volume Analysis

The following table describes the extent to which changes in interest rates and changes in the volume of interest-earning assets and interest-bearing liabilities have affected the Company's interest income and interest expense during the periods indicated. Information is provided in each category with respect to: (i) changes attributable to changes in volumes (changes in average balance multiplied by prior year average rate), (ii) changes attributable to changes in rate (change in average interest rate multiplied by prior year average balance), and (iii) changes attributable to the combined impact of volumes and rates have been allocated proportionately to separate volume and rate categories.

	Year Ended December 31, 2018 Compared with Year Ended December 31, 2017			Year Ended December 31, 2017 Compared with Year Ended December 31, 2016		
	Increase/(Decrease) Due to Change in			Increase/(Decrease) Due to Change in		
	Volume	Rate	Total	Volume	Rate	Total
	(dollars in thousands)			(dollars in thousands)		
Interest income						
Loans						
Taxable	$ 3,560	$ 3,143	$ 6,703	$ 2,684	$ 201	$ 2,885
Tax-exempt	(231)	(64)	(295)	(38)	164	126
Securities available for sale						
Taxable	(894)	85	(809)	(1,371)	198	(1,173)
Securities held to maturity						
Taxable	1,732	213	1,945	2,304	(40)	2,264
Tax-exempt	(214)	(743)	(957)	(64)	(147)	(211)
Cash and due from banks	26	278	304	22	155	177
Total interest income	$ 3,979	$ 2,912	$ 6,891	$ 3,537	$ 531	$ 4,068
Interest expense						
Deposits						
Checking accounts	5	111	116	7	42	49
Savings accounts	146	1,297	1,443	93	(203)	(110)
Money market accounts	49	445	494	(16)	(12)	(28)
Certificates of deposit	(299)	144	(155)	(87)	41	(46)
Total interest-bearing deposits	(99)	1,997	1,898	(3)	(132)	(135)
Other borrowed funds	(292)	274	(18)	366	1	367
Total interest expense	$ (391)	$ 2,271	$ 1,880	$ 363	$ (131)	$ 232
Change in net interest income	$ 4,370	$ 641	$ 5,011	$ 3,174	$ 662	$ 3,836

MARKET RISK AND ASSET LIABILITY MANAGEMENT

Market risk is the risk of loss from adverse changes in market prices and rates. The Company's market risk arises primarily from interest rate risk inherent in its lending and deposit-taking activities. To that end, management actively monitors and manages its interest rate risk exposure.

The Company's profitability is affected by fluctuations in interest rates. A sudden and substantial change in interest rates may adversely impact the Company's earnings to the extent that the interest rates borne by assets and liabilities do not change at the same speed, to the same extent or on the same basis. The Company monitors the impact of changes in interest rates on its net interest income using several tools.

The Company's primary objective in managing interest rate risk is to minimize the adverse impact of changes in interest rates on the Company's net interest income and capital, while structuring the Company's asset-liability structure to obtain the maximum yield-cost spread on that structure. The Company relies primarily on its asset-liability structure to control interest rate risk.

Interest Rate Sensitivity. The Company actively manages its interest rate sensitivity position. The objectives of interest rate risk management are to control exposure of net interest income to risks associated with interest rate movements and to achieve sustainable growth in net interest income. The Company's Asset Liability Committee ("ALCO"), using policies and procedures approved by the Company's board of directors, is responsible for the management of the Company's interest rate sensitivity position. The Company manages interest rate sensitivity by changing the mix, pricing and re-pricing characteristics of its assets and liabilities, through the management of its investment portfolio, its offerings of loan and selected deposit terms, and through wholesale funding. Wholesale funding consists of, but is not limited to, multiple sources including borrowings with the FHLB of Boston, the Federal Reserve Bank of Boston's discount window, and certificates of deposit from institutional brokers.

The Company uses several tools to manage its interest rate risk including interest rate sensitivity analysis, or gap analysis, market value of portfolio equity analysis, interest rate simulations under various rate scenarios, and net interest margin reports. The results of these reports are compared to limits established by the Company's ALCO policies and appropriate adjustments are made if the results are outside the established limits.

The following tables demonstrate the annualized result of an interest rate simulation and the estimated effect that a parallel interest rate shift, or "shock," in the yield curve and subjective adjustments in deposit pricing might have on the Company's projected net interest income over the next 12 months.

This simulation assumes that there is no growth in interest-earning assets or interest-bearing liabilities over the next 12 months. The changes to net interest income shown below are in compliance with the Company's policy guidelines.

As of December 31, 2018:

Change in Interest Rates (in Basis Points)	Percentage Change in Net Interest Income
+400	(7.7)
+300	(5.6)
+200	(3.6)
+100	(1.7)
–100	(2.0)

As of December 31, 2017:

Change in Interest Rates (in Basis Points)	Percentage Change in Net Interest Income
+400	2.6
+300	2.1
+200	1.6
+100	0.9
–100	(8.3)

Economic Value of Equity Analysis. The Company also analyzes the sensitivity of the Bank's financial condition to changes in interest rates through our economic value of equity model. This analysis measures the difference between estimated changes in the present value of the Bank's assets and estimated changes in the present value of the Bank's liabilities assuming various changes in current interest rates. The Bank's economic value of equity analysis as of December 31, 2018 estimated that, in the event of an instantaneous 200 basis point increase in interest rates, the Bank would experience a 1.9% increase in the economic value of equity. At the same date, our analysis estimated that, in the event of an instantaneous 100 basis point decrease in interest rates, the Bank would experience a 9.3% decrease in the economic value of equity. The estimates of changes in the economic value of our equity require us to make certain assumptions including loan and mortgage-related investment prepayment speeds, reinvestment rates, and deposit maturities and decay rates. These assumptions are inherently uncertain and, as a result, we cannot precisely predict the impact of changes in interest rates on the economic value of our equity. Although our economic value of equity analysis provides an indication of our interest rate risk exposure at a particular point in time, such estimates are not intended to, and do not, provide a precise forecast of the effect of changes in market interest rates on the economic value of our equity and will differ from actual results.

LIQUIDITY AND CAPITAL RESOURCES

Impact of Inflation and Changing Prices. Our Consolidated Financial Statements and related notes have been prepared in accordance with GAAP. GAAP generally requires the measurement of financial position and operating results in terms of historical dollars without consideration of changes in the relative purchasing power of money over time due to inflation. The impact of inflation is reflected in the increased cost of our operations. Unlike industrial companies, our assets and liabilities are primarily monetary in nature. As a result, changes in market interest rates have a greater impact on performance than the effects of inflation.

Liquidity. Liquidity is defined as the Company's ability to generate adequate cash to meet its needs for day-to-day operations and material long- and short-term commitments. Liquidity risk is the risk of potential loss if the Company were unable to meet its funding requirements at a reasonable cost. The Company manages its liquidity based on demand and specific events and uncertainties to meet current and future financial obligations of a short-term nature. The Company's objective in managing liquidity is to respond to the needs of depositors and borrowers, as well as increase to earnings enhancement opportunities in a changing marketplace.

The Company's liquidity position is managed on a daily basis as part of the daily settlement function and continuously as part of the formal asset liability management process. The Bank's liquidity is maintained by managing its core deposits as the primary source, selling investment securities, selling loans in the secondary market, borrowing from the FHLB of Boston, and purchasing wholesale certificates of deposit as its secondary sources.

The sources of funds for dividends paid by the Company are dividends received from the Bank and liquid funds held by the Company. The Company and the Bank are regulated enterprises and their abilities to pay dividends are subject to regulatory review and restriction. Certain regulatory and statutory restrictions exist regarding dividends, loans, and advances from the Bank to the Company. Generally, the Bank has the ability to pay dividends to the Company subject to minimum regulatory capital requirements.

Quarterly, ALCO reviews the Company's liquidity needs and reports any findings (if required) to the Board of Directors.

Capital Adequacy. Total shareholders' equity was $167.0 million at December 31, 2018, as compared to $148.0 million at December 31, 2017. The Company's equity increased primarily due to increases in earnings. The ratio of total equity to total assets was 7.95% and 7.59% at December 31, 2018 and December 31, 2017, respectively. Book value per share was $40.67 and $36.24, at December 31, 2018 and 2017, respectively.

The Company and the Bank are subject to various regulatory capital requirements. As of December 31, 2018, the Company and the Bank exceeded the regulatory minimum levels to be considered "well capitalized." See Note 17 – SHAREHOLDERS' EQUITY to the Consolidated Financial Statements for additional discussion of regulatory capital requirements.

CONTRACTUAL OBLIGATIONS, COMMITMENTS, AND CONTINGENCIES

The Company has entered into contractual obligations and commitments. The following tables summarize the Company's contractual cash obligations and other commitments by maturity at December 31, 2018:

	Payments Due — By Period as of December 31, 2018				
CONTRACTUAL OBLIGATIONS	**Total**	**Less Than One Year**	**One to Three Years**	**Three to Five Years**	**After Five Years**
			(dollars in thousands)		
FHLBB advances	$ 93,409	$ 90,174	$ 3,235	$ —	$ —
Retirement benefit obligations	26,755	2,195	4,773	5,255	14,532
Lease obligations	39,907	4,448	9,323	9,008	17,128
Certificates of deposit	121,419	79,692	36,451	5,276	—
Total contractual cash Obligations	$ 281,490	$ 176,509	$ 53,782	$ 19,539	$ 31,660

	Amounts of Commitments Expiring — By Period as of December 31, 2018				
OTHER COMMITMENTS	**Total**	**Less Than One Year**	**One to Three Years**	**Three to Five Years**	**After Five Years**
			(dollars in thousands)		
Unused portion of existing lines of Credit	$ 368,410	$ 141,632	$ 77,978	$ 48,227	$ 100,573
Standby letters of credit	8,752	8,365	—	387	—
Originations of new loans	24,505	24,505	—	—	—
Total commitments	$ 401,667	$ 174,502	$ 77,978	$ 48,614	$ 100,573

On October 23, 2017, the Company announced its decision to freeze the accrual of benefits within the Pension Plan, effective December 31, 2017. Further discussion regarding commitments and contingencies can be found in Note 16 – COMMITMENTS AND CONTINGENCIES to the Consolidated Financial Statements.

FINANCIAL INSTRUMENTS WITH OFF-BALANCE-SHEET RISK

The Company 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 primarily include commitments to originate and sell loans, standby letters of credit, unused lines of credit, and unadvanced portions of construction loans. The instruments involve, to varying degrees, elements of credit and interest rate risk in excess of the amount recognized in the consolidated balance sheet. The contract or notional amounts of those instruments reflect the extent of involvement the Company has in these particular classes of financial instruments.

The Company's exposure to credit loss in the event of nonperformance by the other party to the financial instrument for loan commitments, standby letters of credit and unadvanced portions of construction loans is represented by the contractual amount of those instruments. The Company uses the same credit policies in making commitments and conditional obligations as it does for on-balance-sheet instruments.

Off-Balance-Sheet Arrangements. Our significant off-balance-sheet arrangements consist of the following:

- commitments to originate and sell loans,
- standby and commercial letters of credit,
- unused lines of credit,
- unadvanced portions of construction loans,
- unadvanced portions of other loans,
- loan related derivatives, and
- risk participation agreements.

Off-balance-sheet arrangements are more fully discussed in Note 15 – FINANCIAL INSTRUMENTS WITH OFF-BALANCE-SHEET RISK to the Consolidated Financial Statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

The information required by this item is included in Item 7 of this report under "Market Risk and Asset Liability Management."

Item 8. Financial Statements and Supplementary Data.

CAMBRIDGE BANCORP AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31, 2018	December 31, 2017
	(dollars in thousands, except par value)	
Assets		
Cash and cash equivalents	$ 18,473	$ 103,591
Investment securities		
Available for sale, at fair value (amortized cost $172,290 and $208,911, respectively)	168,163	205,017
Held to maturity, at amortized cost (fair value $281,310 and $233,554, respectively)	282,869	232,188
Total investment securities	451,032	437,205
Loans held for sale, at lower of cost or fair value	—	—
Loans		
Residential mortgage	604,331	538,920
Commercial mortgage	757,957	633,649
Home equity	69,336	74,444
Commercial & Industrial	93,712	65,295
Consumer	34,436	38,591
Total loans	1,559,772	1,350,899
Less: allowance for loan losses	(16,768)	(15,320)
Net loans	1,543,004	1,335,579
Federal Home Loan Bank of Boston Stock, at cost	6,844	4,242
Bank owned life insurance	30,933	31,083
Banking premises and equipment, net	8,578	9,310
Deferred income taxes, net	8,717	8,273
Accrued interest receivable	5,762	5,128
Other assets	28,041	15,523
Total assets	$ 2,101,384	$ 1,949,934
Liabilities		
Deposits		
Demand	$ 494,492	$ 493,613
Interest bearing checking	431,702	462,957
Money market	135,585	69,259
Savings	628,212	589,741
Certificates of deposit	121,419	159,830
Total deposits	1,811,410	1,775,400
Short-term borrowings	90,000	—
Long-term borrowings	3,409	3,579
Other liabilities	29,539	22,998
Total liabilities	1,934,358	1,801,977
Shareholders' Equity		
Common stock, par value $1.00; Authorized 10,000,000 shares; Outstanding: 4,107,051 shares and 4,082,188 shares, respectively	4,107	4,082
Additional paid-in capital	38,271	35,663
Retained earnings	131,135	114,093
Accumulated other comprehensive loss	(6,487)	(5,881)
Total shareholders' equity	167,026	147,957
Total liabilities and shareholders' equity	$ 2,101,384	$ 1,949,934

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

CAMBRIDGE BANCORP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME

	For the Year Ended December 31, 2018	2017	2016
	(dollars in thousands, except share data)		
Interest and dividend income			
Interest on taxable loans	$ 57,941	$ 51,238	$ 48,353
Interest on tax-exempt loans	371	496	415
Interest on taxable investment securities	7,457	6,321	5,230
Interest on tax-exempt investment securities	2,404	2,600	2,737
Dividends on FHLB of Boston stock	287	245	179
Interest on overnight investments	595	291	114
Total interest and dividend income	69,055	61,191	57,028
Interest expense			
Interest on deposits	5,023	3,125	3,260
Interest on borrowed funds	444	462	95
Total interest expense	5,467	3,587	3,355
Net interest and dividend income	63,588	57,604	53,673
Provision for Loan Losses	1,502	362	132
Net interest and dividend income after provision for loan losses	62,086	57,242	53,541
Noninterest income			
Wealth management revenue	25,191	23,029	20,389
Deposit account fees	3,071	3,142	2,922
ATM/Debit card income	1,180	1,182	1,140
Bank owned life insurance income	526	584	612
Gain (loss) on disposition of investment securities	2	(3)	438
Gain on loans held for sale	99	355	916
Loan related derivative income	1,651	780	1,323
Other income	1,269	1,155	921
Total noninterest income	32,989	30,224	28,661
Noninterest expense			
Salaries and employee benefits	41,212	36,455	34,529
Occupancy and equipment	9,072	9,114	9,331
Data processing	5,177	4,956	5,024
Professional services	3,258	3,374	2,394
Marketing	2,229	1,620	1,706
FDIC Insurance	574	629	834
Merger expenses	201	—	—
Other expenses	2,264	3,144	2,932
Total noninterest expense	63,987	59,292	56,750
Income before income taxes	31,088	28,174	25,452
Income tax expense	7,207	13,358	8,556
Net income	$ 23,881	$ 14,816	$ 16,896
Share data:			
Weighted average number of shares outstanding, basic	4,061,529	4,030,530	3,990,343
Weighted average number of shares outstanding, diluted	4,098,633	4,065,754	4,028,944
Basic earnings per share	$ 5.82	$ 3.64	$ 4.19
Diluted earnings per share	$ 5.77	$ 3.61	$ 4.15

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

CAMBRIDGE BANCORP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	For the Year Ended December 31,		
	2018	2017	2016
		(dollars in thousands)	
Net income	$ 23,881	$ 14,816	$ 16,896
Other comprehensive (loss)/income, net of tax:			
Unrealized (losses)/gains on available for sale securities			
Unrealized holding (losses)/gains arising during period	(242)	128	(735)
Less: reclassification adjustment for (gains)/losses included in net income	(2)	1	(281)
Total unrealized (losses)/gains on securities	(244)	129	(1,016)
Derivatives			
Change in interest rate contracts	751	—	—
Defined benefit retirement plans			
Change in retirement liabilities	89	3,871	(437)
Other comprehensive income/(loss)	596	4,000	(1,453)
Comprehensive income	$ 24,477	$ 18,816	$ 15,443

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

CAMBRIDGE BANCORP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

	Common Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive (Loss) / Income	Total Shareholders' Equity
	(dollars in thousands, except per share data)				
Balance at December 31, 2015	$ 4,000	$ 30,427	$ 99,064	$ (8,428)	$ 125,063
Net income	—	—	16,896	—	16,896
Other comprehensive loss	—	—	—	(1,453)	(1,453)
Share based compensation	37	2,826	(1,270)	—	1,593
Dividends declared ($1.84 per share)	—	—	(7,428)	—	(7,428)
Balance at December 31, 2016	$ 4,037	$ 33,253	$ 107,262	$ (9,881)	$ 134,671
Net income	—	—	14,816	—	14,816
Other comprehensive income	—	—	—	4,000	4,000
Share based compensation	45	2,410	(403)	—	2,052
Dividends declared ($1.86 per share)	—	—	(7,582)	—	(7,582)
Balance at December 31, 2017	$ 4,082	$ 35,663	$ 114,093	$ (5,881)	$ 147,957
Cumulative effect of accounting changes	—	—	1,202	(1,202)	—
Net income	—	—	23,881	—	23,881
Other comprehensive income	—	—	—	596	596
Share based compensation	25	2,608	—	—	2,633
Dividends declared ($1.96 per share)	—	—	(8,041)	—	(8,041)
Balance at December 31, 2018	$ 4,107	$ 38,271	$ 131,135	$ (6,487)	$ 167,026

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

CAMBRIDGE BANCORP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Year Ended December 31,		
	2018	2017	2016
		(dollars in thousands)	
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	$ 23,881	$ 14,816	$ 16,896
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for loan losses	1,502	362	132
Amortization of deferred charges and fees, net	777	972	1,655
Depreciation and amortization	1,888	1,948	2,107
Bank owned life insurance income	(526)	(584)	(612)
(Gain)/loss on disposition of investment securities	(2)	3	(438)
Share based compensation	2,633	2,052	1,593
Change in accrued interest receivable	(634)	(501)	(405)
Deferred income tax (benefit)/expense	(721)	2,687	(828)
Change in other assets, net	(12,231)	(758)	(2,509)
Change in other liabilities, net	7,455	2,264	4,748
Change in loans held for sale	—	6,506	(6,506)
Net cash provided by operating activities	24,022	29,767	15,833
CASH FLOWS FROM INVESTING ACTIVITIES			
Origination of loans	(596,259)	(354,657)	(275,866)
Proceeds from principal payments of loans	387,537	323,632	147,282
Proceeds from calls/maturities of securities available for sale	35,415	47,955	156,272
Proceeds from sales of securities available for sale and held to maturity	702	77,369	18,070
Purchase of securities available for sale	—	(5,091)	(154,719)
Proceeds from calls/maturities of securities held to maturity	33,064	34,488	11,450
Purchase of securities held to maturity	(84,261)	(184,505)	(11,238)
Proceeds from settlement of bank owned life insurance policies	676	—	—
(Purchase) sale of FHLB of Boston stock	(2,602)	(144)	2,367
Purchase of banking premises and equipment	(1,155)	(807)	(1,187)
Net cash used by investing activities	(226,883)	(61,760)	(107,569)
CASH FLOWS FROM FINANCING ACTIVITIES			
Change in demand, interest bearing, money market and savings accounts	74,421	100,694	136,042
Change in certificates of deposit	(38,467)	(11,411)	(7,309)
Change in short-term borrowings	90,000	—	—
Repayment of long-term borrowings	(170)	(167)	(164)
Cash dividends paid on common stock	(8,041)	(7,582)	(7,428)
Net cash provided by financing activities	117,743	81,534	121,141
Net (decrease)/increase in cash and cash equivalents	(85,118)	49,541	29,405
Cash and cash equivalents at beginning of period	103,591	54,050	24,645
Cash and cash equivalents at end of period	$ 18,473	$ 103,591	$ 54,050
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:			
Cash paid during the period for:			
Interest	$ 5,457	$ 3,579	$ 3,371
Income taxes	$ 8,330	$ 10,100	$ 9,205

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

1. THE BUSINESS

The accompanying consolidated financial statements include the accounts of Cambridge Bancorp (the "Company") and its wholly-owned subsidiary, Cambridge Trust Company (the "Bank"), and the Bank's subsidiaries, Cambridge Trust Company of New Hampshire, Inc., CTC Security Corporation, and CTC Security Corporation III. References to the Company herein relate to the consolidated group of companies. All significant intercompany accounts and transactions have been eliminated in preparation of the consolidated financial statements.

The Company is a state-chartered, federally registered bank holding company headquartered in Cambridge, Massachusetts, incorporated in 1983. The Company is the sole shareholder of the Bank, a Massachusetts trust company chartered in 1890 which is a commercial bank. We are a private bank offering a full range of private banking and wealth management services to our clients. The Private Banking business, the Company's only reportable operating segment, is managed as a single strategic unit.

As a Private Bank, the Company focuses on four core services that center around client needs. The core services include Wealth Management, Commercial Banking, Residential Lending, and Personal Banking. The Bank offers a full range of commercial and consumer banking services through its network of 10 full-service private banking offices in Massachusetts. The Bank is engaged principally in the business of attracting deposits from the public and investing those deposits. The Bank invests those funds in various types of loans, including residential and commercial real estate, and a variety of commercial and consumer loans. The Bank also invests its deposits and borrowed funds in investment securities and has two wholly-owned Massachusetts security corporations, CTC Security Corporation and CTC Security Corporation III, for this purpose. Deposits at the Bank are insured by the Federal Deposit Insurance Corporation ("FDIC") for the maximum amount permitted by FDIC Regulations.

Trust and investment management services are offered through the Bank's full-service branches in Massachusetts, two wealth management offices located in Boston, and three wealth management offices located in New Hampshire in Concord, Manchester, and Portsmouth. The Bank also utilizes its non-depository trust company, Cambridge Trust Company of New Hampshire, Inc., in providing wealth management services in New Hampshire. The assets held for wealth management customers are not assets of the Bank and, accordingly, are not reflected in the accompanying consolidated balance sheets.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The financial statements have been prepared in conformity with U.S. generally accepted accounting principles ("GAAP").

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates. The allowance for loan losses and the valuation of deferred tax assets are particularly subject to change.

Reclassifications

Certain amounts in the prior year's financial statements may have been reclassified to conform with the current year's presentation.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash on hand, amounts due from banks, and overnight investments.

Investment Securities

Investment securities are classified as either 'held to maturity' or 'available for sale' in accordance with the Financial Accounting Standards Board's ("FASB") Accounting Standards Codification ("ASC") 320, "*Investments – Debt and Equity Securities.*" Debt securities that management has the positive intent and ability to hold to maturity are classified as held to maturity. Held to maturity securities are carried at cost and adjusted for the amortization of premiums and the accretion of discounts using the effective-yield or straight line method. U.S. Government Sponsored Enterprises ("GSE") and U.S. Government Agency obligations represent debt securities issued by the Federal Farm Credit Bank, the Federal Home Loan Banks ("FHLB"), the Government National Mortgage

Association ("GNMA"), the Federal National Mortgage Association ("FNMA"), or the Federal Home Loan Mortgage Corporation ("FHLMC"). Mortgage-backed securities represent Pass-Through Certificates and Collateralized Mortgage Obligations either issued by, or collateralized by securities issued by GNMA, FNMA, or FHLMC. Mortgage-backed securities are adjusted for amortization of premiums and accretion of discounts, using the effective-yield method over the estimated average lives of the investments.

Debt and equity securities not classified as held to maturity are classified as available for sale and carried at fair value with unrealized after-tax gains and losses reported net as a separate component of shareholders' equity. The Company classifies its securities based on its intention at the time of purchase.

Declines in the fair value of investment securities below their amortized cost that are deemed to be other-than-temporary are reflected in earnings as realized losses to the extent the impairment is related to credit losses. The amount of the impairment related to other factors is recognized in other comprehensive income. In estimating other-than-temporary impairment losses, management considers: (1) the length of time and the extent to which the fair value has been less than cost; (2) the financial condition and near-term prospects of the issuer; and (3) the Company's intent to sell the security or whether it is more likely than not that the Company will be required to sell the debt security before its anticipated recovery.

Loans and the Allowance for Loan Losses

Loans are reported at the amount of their outstanding principal, including deferred loan origination fees and costs, reduced by unearned discounts, and the allowance for loan losses. Loan origination fees, net of related direct incremental loan origination costs, are deferred and amortized as an adjustment to yield over the life of the related loans. Unearned discount is recognized as an adjustment to the loan yield, using the interest method over the contractual life of the related loan. When a loan is paid off, the unamortized portion of net fees or unearned discount is recognized as interest income.

Loans are considered delinquent when a payment of principal and/or interest becomes past due 30 days following its scheduled payment due date.

Loans on which the accrual of interest has been discontinued are designated non-accrual loans. Accrual of interest income is discontinued when concern exists as to the collectability of principal or interest or typically when a loan becomes over 90 days delinquent. Additionally, when a loan is placed on non-accrual status, all interest previously accrued but not collected is reversed against current period income. Loans are removed from non-accrual when they become less than 90 days past due and when concern no longer exists as to the collectability of principal or interest. Interest collected on non-accruing loans is either applied against principal or reported as income according to management's judgment as to the collectability of principal.

A loan is considered impaired when, based on current information and events, it is probable that the Company will be unable to collect the scheduled payments of principal or interest when due according to the contractual terms of the loan agreement. Under certain circumstances, the Company may restructure the terms of a loan as a concession to a borrower. These restructured loans are generally also considered impaired loans. Impairment is measured on a loan-by-loan basis by either the present value of expected future cash flows discounted at the loan's effective interest rate, the loan's obtainable market price, or the fair value of the collateral if the loan is collateral dependent. Large groups of smaller balance homogeneous loans are collectively evaluated for impairment.

The provision for loan losses and the level of the allowance for loan losses reflects management's estimate of probable loan losses inherent in the loan portfolio at the balance sheet date. Management uses a systematic process and methodology to establish the allowance for loan losses each quarter. To determine the total allowance for loan losses, an estimate is made by management of the allowance needed for each of the following segments of the loan portfolio: (a) residential mortgage loans, (b) commercial mortgage loans, (c) home equity loans, (d) commercial & industrial loans, and (e) consumer loans. Portfolio segments are further disaggregated into classes of loans. The establishment of the allowance for each portfolio segment is based on a process that evaluates the risk characteristics relevant to each portfolio segment and takes into consideration multiple internal and external factors. Internal factors include, but are not limited to, (a) historic levels and trends in charge-offs, delinquencies, risk ratings, and foreclosures, (b) level and changes in industry, geographic, and credit concentrations, (c) underwriting policies and adherence to such policies, (d) the growth and vintage of the portfolios, and (e) the experience of, and any changes in, lending and credit personnel. External factors include, but are not limited to, (a) conditions and trends in the local and national economy and (b) levels and trends in national delinquent and non-performing loans.

The Bank evaluates certain loans individually for specific impairment. A loan is considered impaired when, based on current information and events, it is probable that the Bank will be unable to collect the scheduled payments of principal or interest when due according to the contractual terms of the loan agreement. Loans that experience insignificant payment delays and payment shortfalls generally are not classified as impaired. Loans are selected for evaluation based upon internal risk rating, delinquency status, or non-accrual status. A specific allowance amount is allocated to an individual loan when such loan has been deemed impaired and when the amount of the probable loss is able to be estimated. Estimates of loss may be determined by the present value of anticipated future cash flows, the loan's observable fair market value, or the fair value of the collateral, if the loan is collateral dependent.

Risk characteristics relevant to each portfolio segment are as follows:

Residential mortgage and home equity loans – The Bank generally does not originate loans in these segments with a loan-to-value ratio greater than 80%, unless covered by private mortgage insurance, and in all cases not greater than a loan-to-value ratio of 97%. The Bank does not originate subprime loans. Loans in these segments are secured by one-to-four family residential real estate, and repayment is primarily dependent on the credit quality of the individual borrower.

Commercial mortgage loans – This includes multi-family properties and construction. The Bank generally does not originate loans in this segment with a loan-to-value ratio greater than 75%. Loans in this segment are secured by owner-occupied and nonowner-occupied commercial real estate, and repayment is primarily dependent on the cash flows of the property (if nonowner-occupied) or of the business (if owner-occupied).

Commercial loans – Loans in this segment are made to businesses and are generally secured by equipment, accounts receivable, or inventory, as well as the personal guarantees of the principal owners of the business, and repayment is primarily dependent on the cash flows generated by the business.

Consumer loans – Loans in this segment are made to individuals and can be secured or unsecured. Repayment is primarily dependent on the credit quality of the individual borrower.

The majority of the Bank's loans are concentrated in Eastern Massachusetts and therefore the overall health of the local economy, including unemployment rates, vacancy rates, and consumer spending levels, can have a material effect on the credit quality of all of these portfolio segments.

The process to determine the allowance for loan losses requires management to exercise considerable judgment regarding the risk characteristics of the loan portfolio segments and the effect of relevant internal and external factors.

The provision for loan losses charged to income is based on management's judgment of the amount necessary to maintain the allowance at a level to provide for probable inherent loan losses. When management believes that the collectability of a loan's principal balance, or portions thereof, is unlikely, the principal amount is charged against the allowance for loan losses. Recoveries on loans that have been previously charged off are credited to the allowance for loan losses as received. The allowance is an estimate, and ultimate losses may vary from current estimates. As adjustments become necessary, they are reported in the results of operations through the provision for loan losses in the period in which they become known.

Residential mortgage loans originated and intended for sale in the secondary market are classified as held for sale at the time of their origination and are carried at the lower of cost or fair value on an individual loan basis. Changes in fair value relating to loans held for sale below the loans cost basis are charged against gain on loans held for sale. Gains and losses on the actual sale of the residential loans are recorded in earnings as net gains (losses) on loans held for sale on the consolidated statements of income.

Bank Owned Life Insurance

Bank owned life insurance ("BOLI") represents life insurance on the lives of certain active and former employees who have provided positive consent allowing the Bank to be the beneficiary of such policies. Since the Bank is the primary beneficiary of the insurance policies, increases in the cash value of the policies, as well as insurance proceeds received, are recorded in other noninterest income, and are not subject to income taxes. Applicable regulations generally limit our investment in bank-owned life insurance to 25% of our Tier 1 capital plus our allowance for loan losses. The Bank reviews the financial strength of the insurance carriers prior to the purchase of BOLI and at least annually thereafter.

Banking Premises and Equipment

Land is stated at cost. Buildings, leasehold improvements, and equipment are stated at cost, less accumulated depreciation and amortization, which is computed using the straight-line method over the estimated useful lives of the assets or the terms of the leases, if shorter. The cost of ordinary maintenance and repairs is charged to expense when incurred.

Marketing Expense

Advertising costs are expensed as incurred.

Other Real Estate Owned

Other real estate owned ("OREO") consists of properties formerly pledged as collateral to loans, which have been acquired by the Bank through foreclosure proceedings or acceptance of a deed in lieu of foreclosure. Upon transfer of a loan to foreclosure status, an appraisal is obtained and any excess of the loan balance over the fair value, less estimated costs to sell, is charged against the allowance for loan losses. Expenses and subsequent adjustments to the fair value are treated as other operating expense.

Goodwill and Other Intangible Assets

Goodwill represents the excess of the purchase price over the fair value of net assets acquired in a business combination. Goodwill and intangible assets that are not amortized are tested for impairment, based on their fair values, at least annually. Identifiable intangible assets that are subject to amortization are also reviewed for impairment based on their fair value. Any impairment is recognized as a charge to earnings and the adjusted carrying amount of the intangible asset becomes its new accounting basis. The remaining useful life of an intangible asset that is being amortized is also evaluated each reporting period to determine whether events and circumstances warrant a revision to the remaining period of amortization.

Mortgage servicing assets are recognized as separate assets when rights are acquired through purchase or through sale of financial assets with servicing rights retained. The fair value of the servicing rights is determined by estimating the present value of future net cash flows, taking into consideration market loan prepayment speeds, discount rates, servicing costs, and other economic factors. For purposes of measuring impairment, the underlying loans are stratified into relatively homogeneous pools based on predominant risk characteristics which include product type (i.e., fixed or adjustable) and interest rate bands. If the aggregate carrying value of the capitalized mortgage servicing rights for a stratum exceeds its fair value, MSR impairment is recognized in earnings through a valuation allowance for the difference. As the loans are repaid and net servicing revenue is earned, the MSR asset is amortized as an offset to loan servicing income. Servicing revenues are expected to exceed this amortization expense. However, if actual prepayment experience or defaults exceed what was originally anticipated, net servicing revenues may be less than expected and mortgage servicing rights may be impaired.

Income Taxes

The Company and its subsidiaries file income tax returns in the U.S. federal jurisdiction, the Commonwealth of Massachusetts, the state of New Hampshire, and other states as required. For the year 2018, the Company will file taxes in Massachusetts and New Hampshire.

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are reflected at currently enacted income tax rates applicable to the period in which the deferred tax assets or liabilities are expected to be realized or settled. As changes in tax laws or rates are enacted, deferred tax assets and liabilities are adjusted through the provision for income taxes. Deferred tax assets are reviewed quarterly and reduced by a valuation allowance if, based upon the information available, it is more likely than not that some or all of the deferred tax assets will not be realized.

Interest and penalties related to unrecognized tax benefits, if incurred, are recognized as a component of income tax expense.

The Tax Cuts and Jobs Act of 2017 was enacted on December 22, 2017. Effective in 2018, the change in tax law reduced the Company's statutory federal tax rate from 35% to 21%. The Company recorded a one-time non-cash write-down of net deferred tax assets of $3.9 million as these deferred tax assets were required to be re-measured using the new lower tax rate in 2017.

Fee Revenue

Wealth management revenues include asset-based revenues (trust and investment advisory fees) that are primarily accrued as earned based upon a percentage of asset values under management, or administration. Also included in wealth management revenues are transaction-based revenues (financial planning fees and other service fees), which are recognized as revenue to the extent that services have been completed. Fee revenue from deposit service charges is generally recognized when earned.

Pension and Retirement Plans

The Company sponsored a defined benefit pension plan (the "Pension Plan") and a postretirement health care plan covering substantially all employees hired before May 2, 2011. On October 23, 2017, the Company announced its decision to freeze the accrual of benefits for all participants in the Pension Plan, effective as of December 31, 2017. Benefits for the Pension Plan were based primarily on years of service and the employee's average monthly pay during the five highest consecutive plan years of the employee's final 10 years. Benefits for the postretirement health care plan are based on years of service. Expense for both of these plans is recognized over the employee's service life utilizing the projected unit credit actuarial cost method.

The Company also sponsors non-qualified retirement programs that provide supplemental retirement benefits to certain current and former executives. Prior to 2016, the Company provided individual non-qualified defined benefit supplemental executive retirement plans ("DB SERPs") to certain executives. The DB SERPs generally provide for an annual benefit payable in equal monthly installments following the executive's retirement and continuing for at least the remainder of his or her lifetime, with such annual benefit generally based on the executive's years of service and his or her highest three consecutive years of base salary and bonus. In 2016, the Company's Board discontinued the use of DB SERPs for new entrants to the Company's non-qualified retirement programs. Instead, new entrants are provided with individual non-qualified defined contribution supplemental executive retirement plans ("DC SERPs"). Under the DC SERPs, the Company contributes an amount equal to 10% of the executive's base salary and bonus to his or her account under the Company's non-qualified deferred compensation plan, the Executive Deferred Compensation Plan. Expense for the DB SERPs is recognized over the executive's service life utilizing the projected unit credit actuarial cost method. Expense for the DC SERPs is recognized as incurred.

The Company maintains a Profit Sharing Plan ("PSP") that provides for deferral of federal and state income taxes on employee contributions allowed under Section 401(k) of federal law. Beginning in 2018, the Company matched employee contributions up to 100% of the first 4% of each participant's salary, eligible bonus, and eligible incentive, up from 3% in 2017. Each year, the Company may also make a discretionary contribution to the PSP. Employees are eligible to participate in the PSP on the first day of their initial date of service. Additionally, each year, the Company may also make a discretionary contribution to the PSP. In 2018, employees were eligible to participate in the discretionary contribution portion of the PSP after completing 12 months of employment, and 1,000 hours of service. The employee must be employed on the last day of the calendar year, or retire at the normal retirement age of 65 during the calendar year to receive the discretionary contribution. Effective in 2019, employees are eligible to participate in the discretionary contribution portion of the PSP on the first day of their initial date of service.

Share-Based Compensation

Share-based compensation plans provide for stock option awards, restricted stock awards, nonvested time based share units, and nonvested performance based share units.

Compensation expense for nonvested restricted stock awards is recognized over the service period based on the fair value at the date of grant. Awards of nonvested time based share units and nonvested performance share units are valued at the fair market value of the Company's common stock as of the award date. Nonvested performance share unit compensation expense is based on the most recent performance assumption available and is adjusted as assumptions change. If the goals are not met, vesting does not occur and no compensation cost will be recognized and any recognized compensation costs will be reversed. Stock-based awards that do not require future service are expensed in the year of grant.

Derivative Instruments and Hedging Activities

Derivatives are recognized as either assets or liabilities on the balance sheet and are measured at fair value. The accounting for changes in the fair value of such derivatives depends on the intended use of the derivative and resulting designation. For derivatives not designated as hedges, changes in fair value of the derivative instruments are recognized in earnings in noninterest income.

For derivatives designated as fair value hedges, changes in the fair value of such derivatives are recognized in earnings together with the changes in the fair value of the related hedged item. The net amount, if any, represents hedge ineffectiveness and is reflected in earnings.

For derivatives designated as cash flow hedges, the effective portion of changes in the fair value of the derivative is recorded in other comprehensive income (loss) and recognized in earnings when the hedged transaction affects earnings. The ineffective portion of changes in the fair value of cash flow hedges is recognized directly in earnings.

Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Company measures the fair values of its financial instruments in accordance with accounting guidance that requires an entity to base fair value on exit price and maximize the use of observable inputs and minimize the use of unobservable inputs to determine the exit price.

ASC 820, "*Fair Value Measurements and Disclosures"* establishes a fair value hierarchy that gives the highest priority to quoted prices in active markets and the lowest priority to unobservable data and requires fair value measurements to be disclosed by level within the hierarchy. The three broad levels defined by the fair value hierarchy are as follows:

> Level 1 – Quoted prices are available in active markets for identical assets or liabilities as of the reported date. The type of financial instruments included in Level 1 are highly liquid cash instruments with quoted prices such as government or agency securities, listed equities and money market securities, as well as listed derivative instruments.
>
> Level 2 – Pricing inputs are other than quoted prices in active markets, which are either directly or indirectly observable as of the reported date. The nature of these financial instruments includes cash instruments for which quoted prices are available but traded less frequently, derivative instruments whose fair value has been derived using a model where inputs to the model are directly observable in the market, or can be derived principally from or corroborated by observable market data, and instruments that are fair valued using other financial instruments, the parameters of which can be directly observed. Instruments which are generally included in this category are corporate bonds and loans, mortgage whole loans, municipal bonds and over-the-counter derivatives.
>
> Level 3 – Instruments that have little to no pricing observability as of the reported date. These financial instruments do not have two-way markets and are measured using management's best estimate of fair value, where the inputs into the determination of fair value require significant management judgment to estimation. Instruments that are included in this category generally include certain commercial mortgage loans, certain private equity investments, distressed debt, non-investment grade residual interests in securitizations, as well as certain highly structured over-the-counter derivative contracts.

Earnings per Common Share

Earnings per common share is computed using the two-class method prescribed under ASC Topic 260, "Earnings Per Share." ASC Topic 260 provides that unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method. We have determined that our outstanding non-vested stock awards are participating securities.

Under the two-class method, basic earnings per common share is computed by dividing net earnings allocated to common stock by the weighted-average number of common shares outstanding during the applicable period, excluding outstanding participating securities. Diluted earnings per common share is computed using the weighted-average number of shares determined for the basic earnings per common share computation plus the dilutive effect of common stock equivalents. A reconciliation of the weighted-average shares used in calculating basic earnings per common share and the weighted average common shares used in calculating diluted earnings per common share for the reported periods is provided in Note 21 - Earnings Per Share.

Subsequent Events

Management has reviewed events occurring through March 18, 2019, the date the consolidated financial statements were issued and determined that no subsequent events occurred requiring adjustment to or disclosure in these financial statements.

3. RECENTLY ISSUED AND ADOPTED ACCOUNTING STANDARDS

Accounting Standards Update 2018-16 - *Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes* ("ASU 2018-16"). On October 25, the Financial Accounting Standards Board ("FASB") issued ASU 2018-16 to introduce OIS Rate based on the SOFR as an acceptable US benchmark interest for purposed of applying hedge accounting under Topic 815. This update is effective for interim and annual reporting periods beginning after December 15, 2018 because the Company has already adopted ASU 2017-12. The Company adopted this update on January 1, 2019 and the update did not have a significant impact on the consolidated financial statements.

Accounting Standards Update 2018-15 - *Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* ("ASU 2018-15"). On August 29, 2018, the FASB issued amended guidance to align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal use software license). The ASU is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years; early adoption is permitted and should be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. We are currently assessing the impact the adoption of this guidance will have on our consolidated balance sheets, statements of income, and cash flows.

Accounting Standards Update 2018-14 - *Changes to the Disclosure Requirements for Defined Benefit Plans* ("ASU 2018-14"). On August 28, 2018, the FASB issued guidance to remove, add, and clarify certain disclosures for defined benefit plans. The ASU is effective for fiscal years ending after December 15, 2020; early adoption is permitted and should be applied using the retrospective method to all periods presented. We are currently assessing the impact the adoption of this guidance will have on our consolidated balance sheets, statements of income, and cash flows.

Accounting Standards Update 2018-13 - *Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"). On August 28, 2018, the FASB issued guidance to remove, add, and clarify certain disclosures for fair value measurement. The ASU is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019; early adoption is permitted and should be applied using either retrospective method or the prospective method as specified in the ASU. We are currently assessing the impact the adoption of this guidance will have on our consolidated balance sheets, statements of income, and cash flows.

Accounting Standards Update 2018-07 - *Improvements to Nonemployee Share-Based Payment Accounting* ("ASU 2018-07"). On June 20, 2018, the FASB issued ASU 2018-07 to align the accounting for share-based payment awards issued to employees and nonemployees. The new guidance also clarifies that any share-based payment awards issued to customers should be evaluated under ASC 606, *Revenue from Contracts with Customers*. Currently, the accounting for nonemployee share-based payments differs from that applied to employee awards, particularly with regard to the measurement date and the impact of performance conditions. Under the new guidance, the existing employee guidance will apply to nonemployee share-based transactions, with certain exceptions. The cost of nonemployee awards will continue to be recorded as if the grantor had paid cash for the goods or services. The ASU is effective for public companies for fiscal years beginning after December 15, 2018, including interim periods within that fiscal year, and early adoption is permitted. The adoption of this guidance will not have a material impact on our consolidated balance sheets, statements of income, and cash flows.

Accounting Standards Update No. 2018-02 - *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income* ("ASU 2018-02"). On February 14, 2018, the Financial Accounting Standards Board (the "FASB") issued amended guidance to address certain stranded income tax effects in accumulated other comprehensive income ("AOCI") resulting from the Tax Cuts and Jobs Act. The ASU requires the following:

- a description of the accounting policy for releasing income tax effects from AOCI,
- whether we elect to reclassify the stranded income tax effects from the Tax Cuts and Jobs Act, and
- information about the other income tax effects that are reclassified.

The amendments in this ASU affect any organization that is required to apply the provisions of Topic 220, Income Statement—*Reporting Comprehensive Income*, and has items of other comprehensive income for which the related tax effects are presented in accumulated other comprehensive income, as required by GAAP. ASU 2018-02 is effective for the Company's reporting period beginning on January 1, 2019; early adoption is permitted. The Company elected to early adopt ASU 2018-02 during the first quarter of 2018 and reclassed $1.3 million from AOCI to retained earnings in the period of adoption on the consolidated balance sheet, with zero net effect on total shareholders' equity. This amount represents the difference in the Company's current federal tax rate of 21% and the previous rate of 35%. The adoption of this guidance did not have an impact on our consolidated statements of income or cash flows.

Accounting Standard Update No. 2017-12 - *Derivatives and Hedging: Targeted Improvements to Accounting for Hedging Activities* ("ASU 2017-12"). On August 28, 2017, the FASB issued a new standard that allows companies to better align their hedge accounting and risk management activities. The new standard will also reduce the cost and complexity of applying hedge accounting. The standard requires companies to change the recognition and presentation of the effects of hedge accounting by:

- eliminating the requirement to separately measure and report hedge ineffectiveness; and
- requiring companies to present all of the elements of hedge accounting that affect earnings in the same income statement line as the hedged item.

The standard also permits hedge accounting for strategies for which hedge accounting was not historically permitted and includes new alternatives for measuring the hedged item for fair value hedges of interest rate risk. Furthermore, the standard eases the requirements for effectiveness testing, hedge documentation, applying the critical terms match method, and introduces new alternatives that will permit companies to reduce the risk of material error corrections if they misapply the shortcut method. The new accounting standard is effective for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years; early adoption is permitted.

The new standard requires a modified retrospective transition method in which the Company will recognize the cumulative effect of the change on the opening balance of each affected component of equity in the statement of financial position as of the date of adoption. The Company early adopted the standard during the fourth quarter of 2018, using a modified retrospective transition method, and it did not have an effect on our consolidated balance sheets, statements of income, and cash flows.

Accounting Standards Update No. 2017-08 - *Premium Amortization on Purchased Callable Debt Securities* ("ASU 2017-08"). On March 30, 2017, the FASB issued guidance to amend the amortization period for certain purchased callable debt securities held at a premium. The new guidance requires entities to amortize premium on callable debt securities to the earliest call date. Shortening the amortization period is generally expected to more closely align the interest income recognition with the expectations incorporated in the market pricing on the underlying securities. Under GAAP, entities generally amortize the premium as an adjustment of yield over the contractual life of the instrument. Debt securities held at a discount will continue to be amortized to maturity. The amended guidance is effective for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. Early adoption is permitted. This guidance should be applied using a modified retrospective basis as of the beginning of the period of adoption. The Company early adopted the new ASU during the second quarter of 2018, using a modified retrospective method, and it did not have an effect on our consolidated balance sheets, statements of income, and cash flows.

Accounting Standards Update No. 2017-07 - *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost* ("ASU 2017-07"). On March 10, 2017, the FASB issued amended guidance primarily to improve the presentation of net periodic pension cost and net periodic postretirement benefit cost, as discussed below. The new guidance requires that an employer report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period and all other components of net periodic benefit cost in a separate line item(s) in the statement of income. The guidance also specifies that only the service cost component will be eligible for capitalization. The amendments in this ASU are effective for fiscal years beginning after December 15, 2017. The Company adopted this standard on January 1, 2018 using the retrospective application for the presentation of the service cost component, the other components of net periodic pension cost, and net periodic postretirement benefit cost in the income statement. See NOTE 13 – PENSION AND RETIREMENT PLANS for the required disclosures and impact to the consolidated statements of income.

Accounting Standards Update No. 2016-18 - *Restricted Cash* ("ASU 2016-18"). On November 17, 2016, the FASB issued amended guidance to require that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The Company adopted this standard on January 1, 2018, and it did not have an impact on our statement of cash flows.

Accounting Standards Update No. 2016-15 - *Classification of Certain Cash Receipts and Cash Payments* ("ASU 2016-15"). On August 26, 2016, the FASB issued amendments to clarify guidance on the classification of certain cash receipts and payments in the statement of cash flows. This guidance is intended to reduce existing diversity in practice in how certain cash receipts and cash payments are presented and classified on the statement of cash flows. This guidance should be applied using a retrospective transition method to each period presented. The Company adopted this standard on January 1, 2018, and it did not have a material impact on our statement of cash flows.

Accounting Standards Update No. 2016-13 - *Financial Instruments - Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"). On June 16, 2016, the FASB issued ASU 2016-13, which will significantly change how entities measure and recognize credit impairment for many financial assets. Under this standard, the new current expected credit loss model will require entities to immediately recognize an estimate of credit losses expected to occur over the remaining life of the financial assets that are in the scope of the standard. This new guidance also made targeted amendments to the current impairment model for available for sale debt securities. This guidance will be effective for the Company for the fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Early adoption for fiscal years and interim periods beginning after December 15, 2018 is permitted. We are in the process of evaluating this guidance and its effect on our consolidated balance sheets, statements of income, and cash flows. We have developed an implementation plan which includes assessment of processes, portfolio segmentation, model development, system requirements, and the identification of data and resource needs to implement this standard.

Accounting Standards Update No. 2016-02 - *Leases* ("ASU 2016-02"). On February 25, 2016, the FASB issued guidance that requires recognition of lease assets and lease liabilities on the statement of condition and disclosure of key information about leasing arrangements. In particular, this guidance requires a lessee of operating or finance leases to recognize on the statement of condition a liability to make lease payments and a right-of-use asset representing its right to use the underlying asset for the lease term. However, for leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election not to recognize lease assets and lease liabilities. Under previous GAAP, a lessee was not required to recognize lease assets and lease liabilities arising from operating leases on the statement of condition. The guidance becomes effective for the Company on January 1, 2019; early adoption is permitted. Also in July 2018, the FASB issued Accounting Standards Update No. 2018-11, "Targeted Improvements" ("ASU 2018-11"), to allow an optional transition method in which the provisions of Topic 842 would be applied upon the adoption date and would not have to be retroactively applied to the earliest reporting period presented in the consolidated financial statements. At present, the Company intends to use this optional transition method for the adoption of Topic 842. The Company adopted the new lease guidance on January 1, 2019 and expects to record a right-of-use asset of approximately $32.0 million to $37.0 million.

Accounting Standards Update No. 2016-01 - *Recognition and Measurement of Financial Assets and Financial Liabilities* ("ASU 2016-01"). On January 5, 2016, the FASB issued amended guidance on certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. This guidance:

- requires equity investments (with certain exceptions) to be measured at fair value with changes in fair value recognized in net income,
- requires an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments,
- requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset (that is, securities or loans and receivables) on the statement of condition or the accompanying notes to the financial statements,
- clarifies that an entity must assess valuation allowances on a deferred tax asset related to available for sale debt securities in combination with its other deferred tax assets.
- requires public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes, and
- eliminates the requirement for public entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the statement of condition.

The amendments, in general, are required to be applied by means of a cumulative-effect adjustment on the statement of condition as of the beginning of the period of adoption. The Company adopted the standard on January 1, 2018, and it did not have a material impact on our consolidated balance sheets, statements of income, or cash flows.

Accounting Standards Update No. 2014-09 - *Revenue from Contracts with Customers* ("ASU 2014-09"). On May 28, 2014, the FASB issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The new guidance supersedes current U.S. GAAP guidance on revenue recognition and requires the use of more estimates and judgments than the current revenue standards. Topic 606 does not apply to revenue associated with financial instruments, including revenue from loans and securities. In addition, certain noninterest income streams, such as fees associated with mortgage servicing rights, financial guarantees, derivatives, and certain credit card fees, are also not in scope of the new guidance.

On January 1, 2018, the Company adopted ASU No. 2014-09 and all subsequent ASUs that modified Topic 606. Topic 606 is applicable to noninterest revenue streams such as trust and asset management income, deposit related fees, interchange fees, and merchant income. The Company completed its overall assessment of revenue streams and review of related contracts potentially affected by the ASU, including trust and asset management fees, deposit related fees, and other income within noninterest income. Based on this assessment, the Company concluded that ASU 2014-09 did not materially change the method in which the Company currently recognizes revenue for these revenue streams. The Company adopted ASU 2014-09 and its related amendments utilizing the modified retrospective approach. Since there was no net income impact upon adoption of the new guidance, a cumulative effect adjustment to opening retained earnings was not deemed necessary. Noninterest income considered in-scope of Topic 606 is discussed below.

Wealth management and trust fees

The Company earns wealth management fees for providing investment management, trust administration, and financial planning services to clients. The Company's performance obligation under these contracts is satisfied over time as the wealth management services are provided. Fees are recognized monthly based on the average monthly value of the assets under management and the applicable fee rate, or at a fixed annual rate, depending on the terms of the contract. No performance-based incentives are earned on wealth management contracts.

The Company earns trust fees for serving as trustee for certain clients. As trustee, the Company serves as a fiduciary, administers the client's trust and, in some cases, manages the assets of the trust. The Company's performance obligation under these agreements is satisfied over time as the administration and management services are provided. Fees are recognized monthly based on a percentage of the market value of the account, or at a fixed annual rate, as outlined in the agreement. The Company also earns fees for trust related activities. The Company's performance obligation under these agreements is satisfied at a point in time and recognized when these services have been performed.

All of the wealth management and trust fee income on the consolidated statement of income is considered in-scope of Topic 606.

Other banking fee income

The Company charges a variety of fees to its clients for services provided on the deposit and deposit management related accounts. Each fee is either transaction-based or assessed monthly. The types of fees include service charges on accounts, overdraft fees, wire transfer fees, maintenance fees, ATM fee charges, and other miscellaneous charges related to the accounts. These fees are not governed by individual contracts with clients. They are charges to clients based on disclosures presented to clients upon opening these accounts along with updated disclosures when changes are made to the fee structures. The transaction-based fees are recognized in revenue when charged to the client based on specific activity on the client's account. Monthly service and maintenance charges are recognized in the month they are earned and are charged directly to the client's account.

4. CASH AND CASH EQUIVALENT

At December 31, 2018 and December 31, 2017, cash and due from banks totaled $18.5 million and $103.6 million, respectively. Of this amount, $12.7 million and $12.8 million, respectively, were maintained to satisfy the reserve requirements of the Federal Reserve Bank of Boston ("FRB Boston"). Additionally, at December 31, 2018 and 2017, the Company pledged $500,000 to the New Hampshire Banking Department relating to Cambridge Trust Company of New Hampshire, Inc.'s operations in that state.

5. INVESTMENT SECURITIES

Investment securities have been classified in the accompanying consolidated balance sheets according to management's intent. The carrying amounts of securities and their approximate fair values were as follows:

	December 31, 2018				December 31, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	(dollars in thousands)							
Available for sale securities								
U.S. GSE obligations	$ 75,004	$ —	$ (965)	$ 74,039	$ 90,021	$ —	$ (1,230)	$ 88,791
Mortgage-backed securities	92,271	118	(3,121)	89,268	113,184	248	(2,806)	110,626
Corporate debt securities	5,015	—	(159)	4,856	5,034	12	(45)	5,001
Mutual funds	—	—	—	—	672	—	(73)	599
Total available for sale securities	$172,290	$ 118	$ (4,245)	$168,163	$208,911	$ 260	$ (4,154)	$205,017
Held to maturity securities								
U.S. GSE obligations	$ 32,571	$ —	$ (238)	$ 32,333	$ 32,572	$ —	$ (166)	$ 32,406
Mortgage-backed securities	168,118	134	(2,290)	165,962	117,155	7	(906)	116,256
Corporate debt securities	6,972	—	(107)	6,865	1,998	4	—	2,002
Municipal securities	75,208	1,297	(355)	76,150	80,463	2,544	(117)	82,890
Total held to maturity securities	$282,869	$ 1,431	$ (2,990)	$281,310	$232,188	$ 2,555	$ (1,189)	$233,554
Total	$455,159	$ 1,549	$ (7,235)	$449,473	$441,099	$ 2,815	$ (5,343)	$438,571

All of the Company's mortgage-backed securities have been issued by, or are collateralized by securities issued by, either Government National Mortgage Association (Ginnie Mae), Federal National Mortgage Association (Fannie Mae), or Federal Home Loan Mortgage Corporation (Freddie Mac).

The amortized cost and fair value of debt investments, aggregated by contractual maturity, are shown below. Maturities of mortgage-backed securities do not take into consideration scheduled amortization or prepayments. Actual maturities may differ from contractual maturities because issuers may have the right to call or prepay obligations with or without call or prepayment penalties.

	Within One Year		After One, But Within Five Years		After Five, But Within Ten Years		After Ten Years		Total	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value
At December 31, 2018					(dollars in thousands)					
Available for sale securities										
U.S. GSE obligations	$ 10,004	$ 9,946	$ 65,000	$ 64,093	$ —	$ —	$ —	$ —	$ 75,004	$ 74,039
Mortgage-backed securities	—	—	78	80	33,768	32,905	58,425	56,283	92,271	89,268
Corporate debt securities	2,008	1,994	3,007	2,862	—	—	—	—	5,015	4,856
Total available for sale securities	$ 12,012	$11,940	$ 68,085	$ 67,035	$ 33,768	$ 32,905	$ 58,425	$ 56,283	$172,290	$168,163
Held to maturity securities										
U.S. GSE obligations	$ 5,001	$ 4,991	$ 27,570	$ 27,342	$ —	$ —	$ —	$ —	$ 32,571	$ 32,333
Mortgage-backed securities	50	51	—	—	34,434	33,958	133,634	131,953	168,118	165,962
Corporate debt securities	—	—	6,972	6,865	—	—	—	—	6,972	6,865
Municipal securities	4,630	4,654	13,259	13,427	41,390	42,273	15,929	15,796	75,208	76,150
Total held to maturity securities	$ 9,681	$ 9,696	$ 47,801	$ 47,634	$ 75,824	$ 76,231	$149,563	$147,749	$282,869	$281,310
Total	$ 21,693	$21,636	$115,886	$114,669	$109,592	$109,136	$207,988	$204,032	$455,159	$449,473

The following tables show the Company's securities with gross unrealized losses, aggregated by investment category and length of time that individual securities have been in a continuous loss position:

	December 31, 2018					
	Less than 12 months		12 months or longer		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
			(dollars in thousands)			
Temporarily Impaired Securities						
Available for sale securities						
U.S. GSE obligations	$ —	$ —	$ 74,039	$ (965)	$ 74,039	$ (965)
Mortgage-backed securities	—	—	86,815	(3,121)	86,815	(3,121)
Corporate debt securities	902	(98)	3,954	(61)	4,856	(159)
Total available for sale securities	$ 902	$ (98)	$ 164,808	$ (4,147)	$ 165,710	$ (4,245)
Held to maturity securities						
U.S. GSE obligations	$ 4,995	$ (5)	$ 27,338	$ (233)	$ 32,333	$ (238)
Mortgage-backed securities	30,719	(216)	93,225	(2,074)	123,944	(2,290)
Corporate debt securities	6,865	(107)	—	—	6,865	(107)
Municipal securities	8,484	(82)	8,313	(273)	16,797	(355)
Total held to maturity securities	$ 51,063	$ (410)	$ 128,876	$ (2,580)	$ 179,939	$ (2,990)
Total temporarily impaired securities	$ 51,965	$ (508)	$ 293,684	$ (6,727)	$ 345,649	$ (7,235)

	December 31, 2017					
	Less than 12 months		12 months or longer		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
	(dollars in thousands)					
Temporarily Impaired Securities						
Available for sale securities						
U.S. GSE obligations	$ 4,979	$ (21)	$ 83,812	$ (1,209)	$ 88,791	$ (1,230)
Mortgage-backed securities	12,526	(157)	94,663	(2,649)	107,189	(2,806)
Corporate debt securities	—	—	3,990	(45)	3,990	(45)
Mutual funds	—	—	599	(73)	599	(73)
Total available for sale securities	$ 17,505	$ (178)	$ 183,064	$ (3,976)	$ 200,569	$ (4,154)
Held to maturity securities						
U.S. GSE obligations	$ 27,407	$ (166)	$ —	$ —	$ 27,407	$ (166)
Mortgage-backed securities	115,926	(906)	3	—	115,929	(906)
Corporate debt securities	—	—	—	—	—	—
Municipal securities	2,041	(19)	6,459	(98)	8,500	(117)
Total held to maturity securities	$ 145,374	$ (1,091)	$ 6,462	$ (98)	$ 151,836	$ (1,189)
Total temporarily impaired securities	$ 162,879	$ (1,269)	$ 189,526	$ (4,074)	$ 352,405	$ (5,343)

Securities are evaluated by management for other-than-temporary impairment on at least a quarterly basis, and more frequently when economic or market conditions warrant such evaluation. Consideration is given to: (1) the length of time and the extent to which the fair value has been less than cost; (2) the financial condition and near-term prospects of the issuer; and (3) the intent and ability of the Company to retain its investment in the issuer for a period of time sufficient to allow for any anticipated recovery in fair value.

As of December 31, 2018, 142 debt securities had gross unrealized losses, with an aggregate depreciation of 2.05% from the Company's amortized cost basis. The largest unrealized loss percentage of any single security was 9.79%, or $98,000, of its amortized cost. The largest unrealized dollar loss of any single security was $189,000, or 5.34%, of its amortized cost.

As of December 31, 2017, 118 debt securities and one equity security had gross unrealized losses, with an aggregate depreciation of 1.49% from the Company's amortized cost basis. The largest unrealized loss percentage of any single security was 10.90%, or $73,000, of its amortized cost. The largest unrealized dollar loss of any single security was $185,000, or 3.71%, of its amortized cost.

The Company believes that the nature and duration of impairment on its debt security positions are primarily a function of interest rate movements and changes in investment spreads and does not consider full repayment of principal on the reported debt obligations to be at risk. Since nearly all of these securities are rated "investment grade" and a) the Company does not intend to sell these securities before recovery and b) that it is more likely than not that the Company will not be required to sell these securities before recovery, the Company does not consider these securities to be other-than-temporarily impaired as of December 31, 2018 and 2017.

The following table sets forth information regarding sales of investment securities and the resulting gains or losses from such sales:

	For the Year Ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
Amortized cost of securities sold	$ 700	$ 77,372	$ 17,632
Gain/(loss) realized on securities sold	2	(3)	438
Net proceeds from securities sold	$ 702	$ 77,369	$ 18,070

6. LOANS AND ALLOWANCE FOR LOAN LOSSES

The Company's lending activities are conducted primarily in Eastern Massachusetts. The Company grants single- and multi-family residential loans, commercial & industrial ("C&I), commercial real estate ("CRE"), construction loans, and a variety of consumer loans. Most of the loans granted by the Company are secured by real estate collateral. Repayment of the Company's residential loans are generally dependent on the health of the employment market in the borrowers' geographic areas and that of the general economy with liquidation of the underlying real estate collateral being typically viewed as the primary source of repayment in the event of borrower default. The repayment of C&I loans depends primarily on the cash flow and credit worthiness of the borrower and secondarily on the underlying collateral provided by the borrower. As borrower cash flow may be difficult to predict, liquidation of the underlying collateral securing these loans is typically viewed as the primary source of repayment in the event of borrower default. However, collateral typically consists of equipment, inventory, accounts receivable, or other business assets that may fluctuate in value, so the liquidation of collateral in the event of default is often an insufficient source of repayment. The Company's CRE loans are primarily made based on the cash flow from the collateral property and secondarily on the underlying collateral provided by the borrower, with liquidation of the underlying real estate collateral typically being viewed as the primary source of repayment in the event of borrower default. The Company's construction loans are primarily made based on the borrower's expected ability to execute and the future completed value of the collateral property, with sale of the underlying real estate collateral typically being viewed as the primary source of repayment.

Loans outstanding are detailed by category as follows:

	December 31, 2018	December 31, 2017
	(dollars in thousands)	
Residential mortgage		
Mortgages - fixed rate	$ 293,267	$ 298,851
Mortgages - adjustable rate	309,656	239,027
Deferred costs net of unearned fees	1,408	1,042
Total residential mortgages	604,331	538,920
Commercial mortgage		
Mortgages - nonowner occupied	654,394	562,203
Mortgages - owner occupied	59,335	35,343
Construction	44,146	35,904
Deferred costs net of unearned fees	82	199
Total commercial mortgages	757,957	633,649
Home equity		
Home equity - lines of credit	63,421	70,326
Home equity - term loans	5,665	3,863
Deferred costs net of unearned fees	250	255
Total home equity	69,336	74,444
Commercial & industrial		
Commercial & industrial	93,728	65,305
Deferred costs (fees) net of unearned fees	(16)	(10)
Total commercial & industrial	93,712	65,295
Consumer		
Secured	33,252	37,272
Unsecured	1,171	1,303
Deferred costs net of unearned fees	13	16
Total consumer	34,436	38,591
Total loans	$ 1,559,772	$ 1,350,899

Directors and officers of the Company and their associates are customers of, and have other transactions with, the Company in the normal course of business. All loans and commitments included in such transactions were made on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other persons and do not involve more than normal risk of collection or present other unfavorable features. At December 31, 2018 and December 31, 2017, total loans outstanding to such directors and officers were $488,000 and $516,000, respectively. During the year ended December 31, 2018, $139,000 of additions and $167,000 of repayments were made to these loans. There were $124,000 of additions and $298,000 of repayments during the year ended December 31, 2017. At December 31, 2018 and 2017, all of the loans to directors and officers were performing according to their original terms.

The following tables set forth information regarding non-performing loans disaggregated by loan category:

	December 31, 2018					
	Residential Mortgages	Commercial Mortgages	Home Equity	Commercial & Industrial	Consumer	Total
	(dollars in thousands)					
Non-performing loans:						
Non-accrual loans	$ 512	$ —	$ 13	$ —	$ —	$ 525
Loans past due >90 days, but still accruing	—	—	—	—	—	—
Troubled debt restructurings	111	—	—	6	—	117
Total	$ 623	$ —	$ 13	$ 6	$ —	$ 642

	December 31, 2017					
	Residential Mortgages	Commercial Mortgages	Home Equity	Commercial & Industrial	Consumer	Total
	(dollars in thousands)					
Non-performing loans:						
Non-accrual loans	$ 918	$ 213	$ 17	$ —	$ —	$ 1,148
Loans past due >90 days, but still accruing	—	—	—	—	—	—
Troubled debt restructurings	121	—	—	29	—	150
Total	$ 1,039	$ 213	$ 17	$ 29	$ —	$ 1,298

Troubled Debt Restructurings ("TDRs")

Loans are considered restructured in a troubled debt restructuring when the Company has granted concessions to a borrower due to the borrower's financial condition that it otherwise would not have considered. These concessions may include modifications of the terms of the debt such as deferral of payments, extension of maturity, reduction of principal balance, reduction of the stated interest rate other than normal market rate adjustments, or a combination of these concessions. Debt may be bifurcated with separate terms for each tranche of the restructured debt. Restructuring a loan in lieu of aggressively enforcing the collection of the loan may benefit the Company by increasing the ultimate probability of collection.

Restructured loans are classified as accruing or non-accruing based on management's assessment of the collectability of the loan. Loans which are already on nonaccrual status at the time of the restructuring generally remain on nonaccrual status for approximately six months or longer before management considers such loans for return to accruing status. Accruing restructured loans are placed into nonaccrual status if and when the borrower fails to comply with the restructured terms and management deems it unlikely that the borrower will return to a status of compliance in the near term.

Troubled debt restructurings are classified as impaired loans. The Company identifies loss allocations for impaired loans on an individual loan basis.

There were no new TDRs during the year ended December 31, 2018. At December 31, 2018, three loans were determined to be TDRs with a total carrying value of $117,000. There were no TDR defaults during the year ended December 31, 2018.

During the year ended December 31, 2017, the Company modified five loans with a pre-modification carrying value (which consists of the unpaid principal balance, net of charge-offs and unamortized deferred loan origination fees and costs, at the time of the restructuring) of $65,000 and a post-modification carrying value of $48,000. At December 31, 2017, these loans had a carrying value of $29,000. As of December 31, 2017 three loans were determined to be TDRs with a total carrying value of $150,000. Two loans designated as TDRs were charged-off during the fourth quarter of 2017. There were no TDR defaults during the year ended December 31, 2017.

There were no specific reserves for these troubled debt restructurings at December 31, 2018 and 2017, respectively.

As of December 31, 2018 and 2017, there were no significant commitments to lend additional funds to borrowers whose loans were restructured.

Loans by Credit Quality Indicator. The following tables contain period-end balances of loans receivable disaggregated by credit quality indicator:

	December 31, 2018		
	Residential Mortgages	Home Equity	Consumer
		(dollars in thousands)	
Credit risk profile based on payment activity:			
Performing	$ 603,708	$ 69,323	$ 34,436
Non-performing	623	13	—
Total	$ 604,331	$ 69,336	$ 34,436

	Commercial Mortgages	Commercial & Industrial
Credit risk profile by internally assigned grade:		
1-6 (Pass)	$ 753,338	$ 85,821
7 (Special Mention)	4,619	4,186
8 (Substandard)	—	3,705
9 (Doubtful)	—	—
10 (Loss)	—	—
Total	$ 757,957	$ 93,712

	December 31, 2017		
	Residential Mortgages	Home Equity	Consumer
		(dollars in thousands)	
Credit risk profile based on payment activity:			
Performing	$ 537,881	$ 74,427	$ 38,591
Non-performing	1,039	17	—
Total	$ 538,920	$ 74,444	$ 38,591

	Commercial Mortgages	Commercial & Industrial
Credit risk profile by internally assigned grade:		
1-6 (Pass)	$ 629,852	$ 56,755
7 (Special Mention)	3,584	8,126
8 (Substandard)	213	414
9 (Doubtful)	—	—
10 (Loss)	—	—
Total	$ 633,649	$ 65,295

With respect to residential real estate mortgages, home equity, and consumer loans, the Bank utilizes the following categories as indicators of credit quality:

- Performing – These loans are accruing and are considered having low to moderate risk.
- Non-performing – These loans have are on non-accrual, or are past due more than 90 days but are still accruing, or are restructured. These loans may contain greater than average risk.

With respect to commercial real estate mortgages and commercial loans, the Bank utilizes a 10 grade internal loan rating system as an indicator of credit quality. The grades are as follows:

- Loans rated 1-6 (Pass) – These loans are considered "pass" rated with low to moderate risk.
- Loans rated 7 (Special Mention) – These loans have potential weaknesses warranting close attention, which, if left uncorrected, may result in deterioration of the credit at some future date.

- Loans rated 8 (Substandard) – These loans have well-defined weaknesses that jeopardize the orderly liquidation of the debt under the original loan terms. Loss potential exists but is not identifiable in any one customer.
- Loans rated 9 (Doubtful) – These loans have pronounced weaknesses that make full collection highly questionable and improbable.
- Loans rated 10 (Loss) – These loans are considered uncollectible and continuance as a bankable asset is not warranted.

Delinquencies

The past due status of a loan is determined in accordance with its contractual repayment terms. All loan types are reported past due when one scheduled payment is due and unpaid for 30 days or more. Loan delinquencies can be attributed to many factors, such as but not limited to, a continuing weakness in, or deteriorating, economic conditions in the region in which the collateral is located, the loss of a tenant or lower lease rates for commercial borrowers, or the loss of income for consumers and the resulting liquidity impacts on the borrowers.

The following tables contain period-end balances of loans receivable disaggregated by past due status:

	December 31, 2018					
	30-59 Days Past Due	60-89 Days Past Due	90 Days or Greater	Total Past Due	Current Loans	Total
	(dollars in thousands)					
Residential Mortgages	$ 1,034	$ 121	$ 351	$ 1,506	$ 602,825	$ 604,331
Commercial Mortgages	—	—	—	—	757,957	757,957
Home Equity	—	—	—	—	69,336	69,336
Commercial & Industrial	—	—	—	—	93,712	93,712
Consumer loans	108	—	—	108	34,328	34,436
Total	$ 1,142	$ 121	$ 351	$ 1,614	$ 1,558,158	$ 1,559,772

	December 31, 2017					
	30-59 Days Past Due	60-89 Days Past Due	90 Days or Greater	Total Past Due	Current Loans	Total
	(dollars in thousands)					
Residential Mortgages	$ 1,353	$ 706	$ 64	$ 2,123	$ 536,797	$ 538,920
Commercial Mortgages	—	32	—	32	633,617	633,649
Home Equity	1	—	17	18	74,426	74,444
Commercial & Industrial	—	—	—	—	65,295	65,295
Consumer loans	176	—	—	176	38,415	38,591
Total	$ 1,530	$ 738	$ 81	$ 2,349	$ 1,348,550	$ 1,350,899

As of December 31, 2018 and 2017, loans secured by one- to four-family residential property amounting to $351,000 and $64,000, respectively, were in process of foreclosure.

There were no significant commitments to lend additional funds to borrowers whose loans were on nonaccrual status at December 31, 2018.

Impaired Loans

Impaired loans are loans for which it is probable that the Company will not be able to collect all amounts due according to the contractual terms of the loan agreements and loans restructured in a troubled debt restructuring. The recorded investment in impaired loans consists of unpaid principal balance, net of charge-offs, interest payments received applied to principal, and unamortized deferred loan origination fees and costs.

The following is information pertaining to impaired loans:

	For the Year Ended December 31, 2018				
	Carrying Value	Average Carrying Value	Unpaid Principal Balance	Related Allowance	Interest Income Recognized
	(dollars in thousands)				
With no required reserve recorded:					
Commercial and industrial	$ 6	$ 17	$ 6	$ —	$ 1
Commercial mortgage	—	—	—	—	—
Residential mortgage	634	647	786	—	4
Home equity	100	104	135	—	1
Total	740	768	927	—	6
With required reserve recorded:					
Commercial and industrial	—	—	—	—	—
Commercial mortgage	—	—	—	—	—
Residential mortgage	—	—	—	—	—
Home equity	—	—	—	—	—
Total	—	—	—	—	—
Total:					
Commercial and industrial	6	17	6	—	1
Commercial mortgage	—	—	—	—	—
Residential mortgage	634	647	786	—	4
Home equity	100	104	135	—	1
Total	$ 740	$ 768	$ 927	$ —	$ 6

	For the Year Ended December 31, 2017				
	Carrying Value	Average Carrying Value	Unpaid Principal Balance	Related Allowance	Interest Income Recognized
	(dollars in thousands)				
With no required reserve recorded:					
Commercial and industrial	$ 29	$ 36	$ 29	$ —	$ 2
Commercial mortgage	213	224	227	—	3
Residential mortgage	904	931	1,103	—	—
Home equity	86	91	116	—	—
Total	1,232	1,282	1,475	—	5
With required reserve recorded:					
Commercial and industrial	—	—	—	—	—
Commercial mortgage	—	—	—	—	—
Residential mortgage	64	66	64	93	1
Home equity	—	—	—	—	—
Total	64	66	64	93	1
Total:					
Commercial and industrial	29	36	29	—	2
Commercial mortgage	213	224	227	—	3
Residential mortgage	968	997	1,167	93	1
Home equity	86	91	116	—	—
Total	$ 1,296	$ 1,348	$ 1,539	$ 93	$ 6

	For the Year Ended December 31, 2016				
	Carrying Value	Average Carrying Value	Unpaid Principal Balance	Related Allowance	Interest Income Recognized
			(dollars in thousands)		
With no required reserve recorded:					
Commercial and industrial	$ —	$ —	$ —	$ —	$ —
Commercial mortgage	—	—	—	—	—
Residential mortgage	528	542	687	—	—
Home equity	102	105	126	—	1
Total	630	647	813	—	1
With required reserve recorded:					
Commercial and industrial	289	297	295	114	2
Commercial mortgage	—	—	—	—	—
Residential mortgage	499	505	509	76	21
Home equity	—	—	—	—	—
Total	788	802	804	190	23
Total:					
Commercial and industrial	289	297	295	114	2
Commercial mortgage	—	—	—	—	—
Residential mortgage	1,027	1,047	1,196	76	21
Home equity	102	105	126	—	1
Total	$ 1,418	$ 1,449	$ 1,617	$ 190	$ 24

Allowance for Loan Losses

The Company maintains an allowance for loan losses in an amount determined by management on the basis of the character of the loans, loan performance, financial condition of borrowers, the value of collateral securing loans, and other relevant factors. We provide for loan losses based upon the consistent application of our documented allowance for loan loss methodology. All loan losses are charged to the allowance for loan losses and all recoveries are credited to it. Additions to the allowance for loan losses are provided by charges to income based on various factors which, in our judgment, deserve current recognition in estimating probable losses. We regularly review the loan portfolio, including a review of our classified assets, and make provisions for loan losses in order to maintain the allowance for loan losses in accordance with GAAP. The allowance for loan losses consists primarily of two components:

1. Specific allowances established for impaired loans, as defined by GAAP. The amount of impairment provided for as a specific allowance is measured based on the deficiency, if any, between the present value of expected future cash flows discounted at the loan's effective interest rate at the time of impairment or, as a practical expedient, at the loan's observable market price, or the fair value of the collateral if the loan is collateral-dependent, and the carrying value of the loan; and

2. General allowances established for loan losses on a portfolio basis for loans that do not meet the definition of impaired loans. The portfolio is grouped into homogenous pools by similar risk characteristics, primarily by loan type and regulatory classification. We apply an estimated incurred loss rate to each loan group. The loss rates applied are based upon our historical loss experience over a designated look back period adjusted, as appropriate, for the quantitative, qualitative, and environmental factors discussed below. This evaluation is inherently subjective, as it requires material estimates that may be susceptible to significant revisions based upon changes in economic and real estate market conditions.

Actual loan losses may be significantly more than the allowance for loan losses we have established, which could have a material negative effect on our financial results.

The adjustments to historical loss experience are based on our evaluation of several quantitative, qualitative, and environmental factors, including:

- the loss emergence period, which represents the average amount of time between when loss events occur for specific loan types and when such problem loans are identified and the related loss amounts are confirmed through charge-offs;
- changes in any concentration of credit (including, but not limited to, concentrations by geography, industry, or collateral type);
- changes in the number and amount of non-accrual loans and past due loans;
- changes in national, state, and local economic trends;
- changes in the types of loans in the loan portfolio;
- changes in the experience and ability of personnel;
- changes in lending strategies; and
- changes in lending policies and procedures.

In addition, we may establish an unallocated allowance to provide for probable losses that have been incurred as of the reporting date but are not reflected in the allocated allowance.

We evaluate the allowance for loan losses based upon the combined total of the specific and general components. Generally, when the loan portfolio increases, absent other factors, the allowance for loan loss methodology results in a higher dollar amount of estimated probable losses than would be the case without the increase. Generally, when the loan portfolio decreases, absent other factors, the allowance for loan losses methodology results in a lower dollar amount of estimated probable losses than would be the case without the decrease. Periodically, management conducts an analysis to estimate the loss emergence period for various loan categories based on samples of historical charge-offs. Model output by loan category is reviewed to evaluate the reasonableness of the reserve levels in comparison to the estimated loss emergence period applied to historical loss experience.

We evaluate the loan portfolio on a quarterly basis and the allowance is adjusted accordingly. While we use the best information available to make evaluations, future adjustments to the allowance may be necessary if conditions differ substantially from the information used in making the evaluations. In addition, various regulatory agencies, as an integral part of their examination process, will periodically review the allowance for loan losses. Such agencies may require us to recognize additions to the allowance based on their analysis of information available to them at the time of their examination.

The following tables contain changes in the allowance for loan losses disaggregated by loan type for the periods noted:

	For the Year Ended December 31, 2018 (dollars in thousands)						
	Residential Mortgages	Commercial Mortgages	Home Equity	Commercial & Industrial	Consumer	Impaired	Total
Allowance for loan losses:							
Balance at December 31, 2017	$ 5,047	$ 8,289	$ 630	$ 946	$ 315	$ 93	$ 15,320
Charge-offs	—	—	—	(73)	(36)	—	(109)
Recoveries	—	—	—	48	7	—	55
Provision for (Release of)	(101)	1,337	(113)	494	(22)	(93)	1,502
Balance at December 31, 2018	$ 4,946	$ 9,626	$ 517	$ 1,415	$ 264	$ —	$ 16,768

	For the Year Ended December 31, 2017 (dollars in thousands)						
	Residential Mortgages	Commercial Mortgages	Home Equity	Commercial & Industrial	Consumer	Impaired	Total
Allowance for loan losses:							
Balance at December 31, 2016	$ 4,898	$ 8,451	$ 651	$ 807	$ 264	$ 190	$ 15,261
Charge-offs	—	—	—	(284)	(39)	—	(323)
Recoveries	—	—	—	13	7	—	20
Provision for (Release of)	149	(162)	(21)	410	83	(97)	362
Balance at December 31, 2017	$ 5,047	$ 8,289	$ 630	$ 946	$ 315	$ 93	$ 15,320

	For the Year Ended December 31, 2016							
	Residential Mortgages	Commercial Mortgages	Home Equity	Commercial & Industrial	Consumer	Unallocated	Impaired	Total
	(dollars in thousands)							
Allowance for loan losses:								
Balance at December 31, 2015	$ 5,244	$ 8,094	$ 699	$ 615	$ 354	$ 11	$ 174	$ 15,191
Change in methodology	336	(377)	(3)	136	(92)	—	—	—
Charge-offs	—	—	—	(71)	(33)	—	—	(104)
Recoveries	13	7	1	14	7	—	—	42
Provision for (Release of)	(695)	727	(46)	113	28	(11)	16	132
Balance at December 31, 2016	$ 4,898	$ 8,451	$ 651	$ 807	$ 264	$ —	$ 190	$ 15,261

The following tables contain period-end balances of the allowance for loan losses and related loans receivable disaggregated by impairment method:

	December 31, 2018					
	Residential Mortgages	Commercial Mortgages	Home Equity	Commercial & Industrial	Consumer	Total
	(dollars in thousands)					
Allowance for loan losses						
Individually evaluated for impairment	$ —	$ —	$ —	$ —	$ —	$ —
Collectively evaluated for impairment	4,945	9,626	517	1,415	265	16,768
Total	$ 4,945	$ 9,626	$ 517	$ 1,415	$ 265	$ 16,768
Loans receivable						
Individually evaluated for impairment	$ 647	$ —	$ 88	$ 5	$ —	$ 740
Collectively evaluated for impairment	603,684	757,957	69,248	93,707	34,436	1,559,032
Total	$ 604,331	$ 757,957	$ 69,336	$ 93,712	$ 34,436	$1,559,772

	December 31, 2017					
	Residential Mortgages	Commercial Mortgages	Home Equity	Commercial & Industrial	Consumer	Total
	(dollars in thousands)					
Allowance for loan losses						
Individually evaluated for impairment	$ 93	$ —	$ —	$ —	$ —	$ 93
Collectively evaluated for impairment	5,047	8,289	630	946	315	15,227
Total	$ 5,140	$ 8,289	$ 630	$ 946	$ 315	$ 15,320
Loans receivable						
Individually evaluated for impairment	$ 968	$ 213	$ 86	$ 29	$ —	$ 1,296
Collectively evaluated for impairment	537,952	633,436	74,358	65,266	38,591	1,349,603
Total	$ 538,920	$ 633,649	$ 74,444	$ 65,295	$ 38,591	$1,350,899

As discussed in Note 2, *Summary of Significant Accounting Policies*, the provision for loan losses is evaluated on a periodic basis by management in order to determine the adequacy of the allowance for loan losses.

7. FEDERAL HOME LOAN BANK OF BOSTON STOCK

As a voluntary member of the FHLB of Boston, the Bank is required to invest in stock of the FHLB of Boston (which is considered a restricted equity security) in an amount based upon its outstanding advances from the FHLB of Boston. At December 31, 2018 and December 31, 2017, the Bank's investment in FHLB of Boston stock totaled $6.8 million and $4.2 million, respectively. No market exists for shares of this stock. The Bank's cost for FHLB of Boston stock is equal to its par value. Upon redemption of the stock, which is at the discretion of the FHLB of Boston, the Bank would receive an amount equal to the par value of the stock. At its discretion, the FHLB of Boston may also declare dividends on its stock.

The Bank's investment in FHLB of Boston stock is reviewed for impairment at each reporting date based on the ultimate recoverability of the cost basis of the stock. As of December 31, 2018 and December 31, 2017, no impairment has been recognized.

8. BANKING PREMISES AND EQUIPMENT

A summary of the cost and accumulated depreciation and amortization of property, leasehold improvements, and equipment is presented below:

	December 31, 2018	December 31, 2017	Estimated Useful Lives
	(dollars in thousands)		
Land	$ 1,116	$ 1,116	
Building and leasehold improvements	12,175	12,839	3-30 years
Equipment, including vaults	11,613	11,185	3-20 years
Work in process	84	9	
Subtotal	24,988	25,149	
Accumulated depreciation and amortization	(16,410)	(15,839)	
Total	$ 8,578	$ 9,310	

Total depreciation expense for the years ended December 31, 2018, 2017, and 2016 amounted to approximately $1.9 million, $1.9 million and $2.1 million, respectively, and is included in occupancy and equipment expenses in the accompanying consolidated statements of income.

9. GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill. At December 31, 2018 and 2017, the carrying value of goodwill, which is included in other assets, totaled $412,000. Goodwill is tested for impairment, based on its fair value, at least annually. As of December 31, 2018 and 2017, no goodwill impairment has been recognized.

Mortgage servicing rights. Periodically, the Company sells certain residential mortgage loans to the secondary market. Generally, these loans are sold without recourse or other credit enhancements. The Company did not have any loans held for sale at December 31, 2018 and December 31, 2017.

The Company sells loans and either releases or retains the servicing rights. For loans sold with servicing rights retained, we provide the servicing for the loans on a per-loan fee basis. Mortgage loans sold and servicing rights retained during the years ended December 31, 2018, 2017, and 2016 were $1.6 million, $11.9 million, and $50.0 million, respectively, with net gains recognized in gain on loans held for sale of $36,000, $182,000, and $998,000, respectively.

An analysis of mortgage servicing rights, which are included in other assets, follows:

	Mortgage Servicing Rights	Valuation Allowance	Total
		(dollars in thousands)	
Balance at December 31, 2015	$ 499	$ (8)	$ 491
Mortgage servicing rights capitalized	545	—	545
Amortization charged against servicing income	(202)	—	(202)
Change in impairment reserve	—	(22)	(22)
Balance at December 31, 2016	$ 842	$ (30)	$ 812
Mortgage servicing rights capitalized	132	—	132
Amortization charged against servicing income	(151)	—	(151)
Change in impairment reserve	—	—	—
Balance at December 31, 2017	$ 823	$ (30)	$ 793
Mortgage servicing rights capitalized	20	—	20
Amortization charged against servicing income	(147)	—	(147)
Change in impairment reserve	(30)	30	—
Balance at December 31, 2018	$ 666	$ —	$ 666

The fair value of our mortgage servicing rights ("MSR") portfolio was $1.0 million as of December 31, 2018 and 2017. The fair value of mortgage servicing rights is estimated based on the present value of expected cash flows, incorporating assumptions for discount rate, prepayment speed, and servicing cost.

The weighted-average amortization period for mortgage servicing rights portfolio was 7.5 years and 7.3 years at December 31, 2018 and December 31, 2017, respectively.

The estimated aggregate future amortization expense for mortgage servicing rights for each of the next five years and thereafter is as follows:

Year ended December 31:	Future Amortization Expense (dollars in thousands)
2019	$ 84
2020	75
2021	67
2022	59
2023	52
Thereafter	329
Total	$ 666

10. DEPOSITS

Deposits are summarized as follows:

	December 31, 2018	December 31, 2017
	(dollars in thousands)	
Demand deposits (non-interest bearing)	$ 494,492	$ 493,613
Interest bearing checking	431,702	462,957
Money market	135,585	69,259
Savings	628,212	589,741
Retail certificates of deposit under $100,000	36,223	38,068
Retail certificates of deposit $100,000 or greater	57,692	69,093
Wholesale certificates of deposit	27,504	52,669
Total deposits	$ 1,811,410	$ 1,775,400

Certificates of deposit had the following schedule of maturities:

	December 31, 2018	December 31, 2017
	(dollars in thousands)	
Less than 3 months remaining	$ 24,219	$ 40,716
3 to 5 months remaining	17,486	19,107
6 to 11 months remaining	37,987	30,545
12 to 23 months remaining	28,529	42,421
24 to 47 months remaining	9,652	20,017
48 months or more remaining	3,546	7,024
Total certificates of deposit	$ 121,419	$ 159,830

Interest expense on retail certificates of deposit $100,000 or greater was $467,000, $446,000, and $475,000 for the years ended December 31, 2018, 2017, and 2016, respectively.

The aggregate amount of certificates of deposit in denominations that meet or exceed the FDIC insurance limit of $250,000 at December 31, 2018 and 2017 was $31.8 million and $44.7 million, respectively.

Related Party Deposits

Deposit accounts of directors, executive officers, and their respective affiliates totaled $6.8 million and $3.1 million as of December 31, 2018 and 2017, respectively.

11. BORROWINGS

Information relating to short-term borrowings is presented below:

	For the Year Ended December 31, 2018	2017
	(dollars in thousands)	
FHLB of Boston short-term advances		
Ending balance	$ 90,000	$ —
Average daily balance	15,183	32,418
Highest month-end balance	90,000	110,000
Weighted average interest rate	2.47%	1.21%

Information relating to long-term borrowings is presented below:

	December 31, 2018 Amount	Rate	December 31, 2017 Amount	Rate
	(dollars in thousands)			
FHLB of Boston long-term advances				
Due 09/01/2020; amortizing	$ 3,409	1.94%	$ 3,579	1.94%

All short- and long-term borrowings with the FHLB of Boston are secured by the Bank's stock in the FHLB of Boston and a blanket lien on "qualified collateral" defined principally as 90% of the market value of certain U.S. Government and GSE obligations and 75% of the carrying value of certain residential mortgage loans. Based upon collateral pledged, the Bank's unused borrowing capacity with the FHLB of Boston at December 31, 2018 was approximately $320.1 million.

The Bank also has a line of credit with the FRB Boston. At December 31, 2018 and 2017, the Bank had pledged commercial real estate and commercial & industrial loans with aggregate principal balances of approximately $291.7 million and $287.6 million, respectively, as collateral for this line of credit. Based upon the collateral pledged, the Bank's unused borrowing capacity with the FRB Boston at December 31, 2018 and 2017 was approximately $167.5 million and $158.0 million, respectively.

12. INCOME TAXES

In accordance with the Tax Cuts and Jobs Act of 2017, the Company's statutory federal tax rate decreased from 35% to 21% effective January 1, 2018. The change in tax law required a one-time non-cash write down of our net deferred tax assets of $3.9 million in 2017.

The components of income tax expense were as follows:

	For the Year Ended December 31, 2018	2017	2016
		(dollars in thousands)	
Current			
Federal	$ 5,524	$ 8,446	$ 7,551
State	2,404	2,225	1,833
Total current expense	7,928	10,671	9,384
Deferred			
Federal	(490)	2,948	(645)
State	(231)	(261)	(183)
Total deferred	(721)	2,687	(828)
Total income tax expense	$ 7,207	$ 13,358	$ 8,556

The following is a reconciliation of the total income tax provision, calculated at statutory federal income tax rates, to the income tax provision in the consolidated statements of income:

	For the Year Ended December 31,					
	2018	Rate	2017	Rate	2016	Rate
			(dollars in thousands)			
Provision at statutory rates	$ 6,528	21.00%	$ 9,861	35.00%	$ 8,908	35.00%
Increase/(decrease) resulting from:						
State tax, net of federal tax benefit	1,717	5.52	1,277	4.53	1,073	4.22
Tax-exempt income	(580)	(1.87)	(1,079)	(3.83)	(1,099)	(4.32)
ESOP dividends	(127)	(0.41)	(216)	(0.77)	(214)	(0.84)
Bank owned life insurance	(140)	(0.45)	(205)	(0.73)	(214)	(0.84)
Benefit from stock compensation	(168)	(0.54)	(190)	(0.67)	—	—
Impact of Tax Cuts and Jobs Act	—	—	3,870	13.74	—	—
Other	(23)	(0.07)	40	0.15	102	0.40
Total income tax expense	$ 7,207	23.18%	$ 13,358	47.42%	$ 8,556	33.62%

The Company's 2018 and 2017 net deferred tax assets were measured using 21% and consisted of the following components:

	December 31, 2018	December 31, 2017
	(dollars in thousands)	
Gross deferred tax assets		
Allowance for loan losses	$ 4,715	$ 4,306
Accrued retirement benefits	2,082	2,430
Unrealized losses on AFS securities	957	905
Incentive compensation	1,189	1,082
Equity based compensation	849	351
Rent	333	266
ESOP dividends	169	174
Other	155	164
Total gross deferred tax assets	10,449	9,678
Gross deferred tax liabilities		
Deferred loan origination costs	(459)	(401)
Depreciation of premises and equipment	(678)	(667)
Mortgage servicing rights	(187)	(223)
Goodwill	(114)	(114)
Derivative transactions	(294)	—
Total gross deferred tax liabilities	(1,732)	(1,405)
Net deferred tax asset	$ 8,717	$ 8,273

It is management's belief, that it is more likely than not, that the reversal of deferred tax liabilities and results of future operations will generate sufficient taxable income to realize the deferred tax assets. Therefore, no valuation allowance was required at either December 31, 2018 and 2017 for the deferred tax assets. It should be noted, however, that factors beyond management's control, such as the general state of the economy and real estate values, can affect future levels of taxable income and that no assurance can be given that sufficient taxable income will be generated in future periods to fully absorb deductible temporary differences.

At December 31, 2018 and 2017, the Company had no unrecognized tax benefits or any uncertain tax positions. The Company does not expect the total amount of unrecognized tax benefits to significantly increase in the next 12 months.

The Company's federal income tax returns are open and subject to examination from the 2015 tax return year and forward. The Company's state income tax returns are open from the 2015 and later tax return years based on individual state statute of limitations.

On January 1, 2017, The Company adopted Accounting Standards Update No. 2016-09 - "*Improvements to Employee Share-Based Payment Accounting*" ("ASU 2016-09"). ASU 2016-09 requires that excess tax benefits or tax deficiencies be recognized as income tax benefit or expense in earnings in the period that they occur. During the year ended December 31, 2018, the Company recognized a tax benefit of $225,000.

13. PENSION AND RETIREMENT PLANS

The Company has a noncontributory, defined benefit pension plan ("Pension Plan") covering substantially all employees hired before May 2, 2011. Employees in positions requiring at least 1,000 hours of service per year were eligible to participate upon the attainment of age 21 and the completion of 12 months of service. Benefits are based primarily on years of service and the employee's average monthly pay during the five highest consecutive plan years of the employee's final ten years. On October 23, 2017, the Company announced its decision to freeze the accrual of benefits within the Pension Plan, effective December 31, 2017. The Company also provides supplemental retirement benefits to certain current and former executive officers of the Company under the terms of Supplemental Executive Retirement Agreements ("Supplemental Retirement Plan"). Prior to 2016, the Company provided individual non-qualified defined benefit supplemental executive retirement plans ("DB SERPs") to certain executives. The DB SERPs generally provide for an annual benefit payable in equal monthly installments following the executive's retirement and continuing for at least the remainder of his or her lifetime, with such annual benefit generally based on the executive's years of service and his or her highest three consecutive years of base salary and bonus. In 2016, the Company's Board discontinued the use of DB SERPs for new entrants to the Company's non-qualified retirement programs. Instead, new entrants are provided with individual non-qualified defined contribution supplemental executive retirement plans ("DC SERPs"). Under the DC SERPs, the Company contributes an amount equal to 10% of the executive's base salary and bonus to his or her account under the Company's non-qualified deferred compensation plan, the Executive Deferred Compensation Plan. The Company also offers postretirement health care benefits for current and future retirees of the Bank. Certain employees receive a fixed monthly benefit at age 65 toward the purchase of postretirement medical coverage. The benefit received is based on the employee's years of active service. The Company uses a December 31 measurement date each year to determine the benefit obligations for these plans.

Projected benefit obligations and funded status were as follows:

	Pension Plan		Supplemental Retirement Plan	
	2018	2017	2018	2017
	(dollars in thousands)			
Change in projected benefit obligation				
Obligation at beginning of year	$ 43,943	$ 43,915	$ 9,204	$ 8,891
Service cost	—	1,500	354	267
Interest cost	1,557	1,826	309	364
Effect of curtailment	—	(7,366)	—	—
Actuarial loss/(gain)	(3,659)	5,313	(499)	182
Benefits paid	(1,319)	(1,245)	(538)	(500)
Obligation at end of year	40,522	43,943	8,830	9,204
Change in plan assets				
Fair value at beginning of year	45,247	39,821	—	—
Actual return on plan assets	(1,280)	6,671	—	—
Employer contribution	—	—	538	500
Benefits paid	(1,319)	(1,245)	(538)	(500)
Fair value at end of year	42,648	45,247	—	—
Funded status at end of year	$ 2,126	$ 1,304	$ (8,830)	$ (9,204)

Amounts recognized in the consolidated balance sheets consisted of:

	Pension Plan		Supplemental Retirement Plan	
	2018	2017	2018	2017
	(dollars in thousands)			
Other assets/(liabilities)	$ 2,126	$ 1,304	$ (8,830)	$ (9,204)

Amounts recognized in accumulated other comprehensive loss consisted of:

	Pension Plan		Supplemental Retirement Plan	
	2018	2017	2018	2017
	(dollars in thousands)			
Net actuarial loss/(gain)	$ 5,427	$ 5,021	$ 358	$ 861
Prior service (benefit)	(12)	(16)	—	—
Total	$ 5,415	$ 5,005	$ 358	$ 861

Certain disaggregated information related to our retirement plans were as follows:

	Pension Plan		Supplemental Retirement Plan	
	2018	2017	2018	2017
	(dollars in thousands)			
Projected benefit obligation	$ 40,522	$ 43,943	$ 8,830	$ 9,204
Accumulated benefit obligation	40,522	43,943	8,567	9,028
Fair value of plan assets	42,648	45,247	—	—
Funded status at end of year	2,126	1,304	(8,830)	(9,204)

The components of net periodic benefit cost and amounts recognized in other comprehensive income/ (loss) were as follows:

	Pension Plan		Supplemental Retirement Plan	
	2018	2017	2018	2017
	(dollars in thousands)			
Net periodic benefit cost				
Service cost	$ —	$ 1,500	$ 354	$ 267
Interest cost	1,557	1,826	309	364
Expected return on assets	(2,891)	(2,741)	—	—
Amortization of prior service credit	(4)	(4)	—	—
Amortization of net actuarial loss/(gain)	106	794	4	—
Net periodic benefit cost	(1,232)	1,375	667	631
Amounts recognized in other comprehensive income/(loss)				
Net actuarial loss/(gain)	512	1,383	(499)	182
Amortization of prior service credit	4	4	(4)	—
Amortization of net actuarial gain	(106)	(794)	—	—
Curtailment gain	—	(7,366)	—	—
Total recognized in other comprehensive income/(loss)	410	(6,773)	(503)	182
Total recognized in net periodic benefit cost and other comprehensive income/(loss)	$ (822)	$ (5,398)	$ 164	$ 813

Weighted-average assumptions used to determine projected benefit obligations are as follows:

	Pension Plan		Supplemental Retirement Plan	
	2018	2017	2018	2017
Discount rate	4.23%	3.58%	4.10%	3.39%
Rate of compensation increase	N/A	4.00%	4.00%	4.00%

Weighted-average assumptions used to determine net periodic benefit cost are as follows:

	Pension Plan		Supplemental Retirement Plan	
	2018	2017	2018	2017
Discount rate	3.58%	4.25%	3.39%	4.25%
Expected long-term return on plan assets	6.50%	7.00%	N/A	N/A
Rate of compensation increase	N/A	4.00%	4.00%	4.00%

To develop the expected long-term rate of return on assets assumption for the Pension Plan, the Company considered the historical returns and the future expectations for returns for each asset class, as well as target asset allocations of the pension portfolio. Based on this analysis, the Company selected 6.50% as the long-term rate of return on asset assumption.

The Company maintains an Investment Policy for its Pension Plan. The objective of this policy is to seek a balance between capital appreciation, current income, and preservation of capital, with a longer term weighting towards equities because of the extended time horizon of the Pension Plan.

The Investment Policy guidelines suggest that the target asset allocation percentages are from 30% to 60% in domestic large cap equities, from 5% to 20% in domestic small/mid cap equities, from 0% to 20% in international equities, and from 20% to 50% in cash and fixed income. The Company did not make contributions to its Pension Plan in 2018.

The Company's Pension Plan weighted-average asset allocations by asset category were as follows:

	December 31, 2018	December 31, 2017
Equity securities	60%	65%
Debt securities	35	29
Other	1	2
Cash and equivalents	4	4
Total	100%	100%

The three broad levels of fair values used to measure the Pension Plan assets are as follows:

- Level 1 – Quoted prices for identical assets in active markets.
- Level 2 – Quoted prices for similar assets in active markets; quoted prices for identical or similar assets in inactive markets; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets.
- Level 3 – Valuations derived from techniques in which one or more significant inputs or significant value drivers are unobservable in the markets and which reflect the Company's market assumptions.

The following table summarizes the various categories of the Pension Plan's assets:

	Fair Value as of December 31, 2018 Level 1	Level 2	Level 3	Total
	(dollars in thousands)			
Asset category				
Cash and cash equivalents	$ 3,520	$ —	$ —	$ 3,520
Fixed Income	—	6,534	—	6,534
Equity securities				
Common Stock				
Large cap core	16,127	—	—	16,127
Mid cap core	—	—	—	—
Small cap core	2,090	—	—	2,090
Mutual funds				
Domestic Equity	4,320	—	—	4,320
International	3,409	—	—	3,409
Domestic Fixed Income	6,648			6,648
Preferred Stock	—	—	—	—
Total	$ 36,114	$ 6,534	$ —	$ 42,648

	Fair Value as of December 31, 2017			
	Level 1	Level 2	Level 3	Total
	(dollars in thousands)			
Asset category				
Cash and cash equivalents	$ 1,627	$ —	$ —	$ 1,627
Fixed Income	—	7,292	—	7,292
Equity securities				
Common Stock				
Large cap core	18,026	—	—	18,026
Mid cap core	56	—	—	56
Small cap core	2,333	—	—	2,333
Mutual funds				
Domestic Equity	4,564	—	—	4,564
International	3,818	—	—	3,818
Domestic Fixed Income	7,531			7,531
Preferred Stock	—	—	—	—
Total	$ 37,955	$ 7,292	$ —	$ 45,247

There were no transfers between fair value levels during the years ended December 31, 2018 and 2017.

The Company offers postretirement health care benefits for current and future retirees of the Bank. Employees receive a fixed monthly benefit at age 65 toward the purchase of postretirement medical coverage. The benefit received is based on the employee's years of active service. The Company uses a December 31 measurement date each year to determine the benefit obligation for this plan.

Projected benefit obligations and funded status were as follows:

	Postretirement Healthcare Plan	
	2018	2017
	(dollars in thousands)	
Change in projected benefit obligation		
Obligation at beginning of year	$ 617	$ 568
Service cost	23	19
Interest cost	22	23
Actuarial loss/(gain)	(30)	37
Benefits paid	(34)	(30)
Obligation at end of year	598	617
Change in plan assets		
Fair value at beginning of year	—	—
Actual return on plan assets	—	—
Employer contribution	33	30
Benefits paid	(33)	(30)
Fair value at end of year	—	—
Funded status at end of year	$ (598)	$ (617)

Amounts recognized in the consolidated balance sheets consisted of:

	Postretirement Healthcare Plan	
	2018	2017
	(dollars in thousands)	
Other liabilities	$ (598)	$ (617)

Amounts recognized in accumulated other comprehensive loss consisted of:

	Postretirement Healthcare Plan	
	2018	2017
	(dollars in thousands)	
Net actuarial (gain)/loss	$ (113)	$ (82)
Prior service cost	—	—
Total	$ (113)	$ (82)

Information for retirement plans with an accumulated benefit obligation in excess of plan assets:

	Postretirement Healthcare Plan	
	2018	2017
	(dollars in thousands)	
Projected benefit obligation	$ 598	$ 617
Accumulated benefit obligation	598	617
Fair value of plan assets	—	—

The components of net periodic benefit cost and amounts recognized in other comprehensive income were as follows:

	Postretirement Healthcare Plan	
	2018	2017
	(dollars in thousands)	
Net periodic benefit cost		
Service cost	$ 23	$ 19
Interest cost	22	23
Expected return on assets	—	—
Amortization of prior service credit	—	—
Amortization of net actuarial gain	—	(9)
Net periodic benefit cost	45	33
Amounts recognized in other comprehensive income/(loss)		
Net actuarial (gain) loss	(30)	37
Amortization of prior service credit	—	—
Amortization of net actuarial gain	—	9
Total recognized in other comprehensive income/(loss)	(30)	46
Total recognized in net periodic benefit cost and other comprehensive income/(loss)	$ 15	$ 79

Weighted-average assumptions used to determine projected benefit obligations are as follows:

	Postretirement Healthcare Plan	
	2018	2017
Discount rate	4.22%	3.58%
Rate of compensation increase	N/A	N/A

Weighted-average assumptions used to determine net periodic benefit cost are as follows:

	Postretirement Healthcare Plan	
	2018	2017
Discount rate	3.58%	4.25%
Expected long-term return on plan assets	N/A	N/A
Rate of compensation increase	N/A	N/A

Assumed health care cost trend rates are as follows:

	Postretirement Healthcare Plan	
	2018	2017
Health care cost trend rate assumed for next year	4.00%	4.00%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	4.00%	4.00%
Year that the rate reaches the ultimate trend rate	2018	2017

Assumed health care trend rates have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	One Percentage Point	
	Increase	Decrease
	(dollars in thousands)	
Effect on total service and interest cost	$ —	$ —
Effect on postretirement benefit obligation	4	(4)

Benefits expected to be paid in the next ten years are as follows:

	Pension Plan	Supplemental Retirement Plan	Postretirement Healthcare Plan	Total
		(dollars in thousands)		
Year-ended December 31,				
2019	$ 1,585	$ 577	$ 33	$ 2,195
2020	1,748	575	34	2,357
2021	1,811	572	33	2,416
2022	1,947	590	34	2,571
2023	2,063	587	34	2,684
2024-2028 inclusive	11,479	2,882	171	14,532
Ten year total	$ 20,633	$ 5,783	$ 339	$ 26,755

The estimated amounts that will be amortized from accumulated other comprehensive income into net periodic benefit cost during 2019 are as follows:

	Pension Plan	Supplemental Retirement Plan	Postretirement Healthcare Plan	Total
		(dollars in thousands)		
Prior service cost	$ (4)	$ —	$ —	$ (4)
Net (gain)/loss	152	—	(4)	148
Total	$ 148	$ —	$ (4)	$ 144

Employee Profit Sharing and 401(k) Plan

The Company maintains a Profit Sharing Plan ("PSP") that provides for deferral of federal and state income taxes on employee contributions allowed under Section 401(k) of federal law. Beginning in 2018, the Company matched employee contributions up to 100% of the first 4% of each participant's salary, eligible bonus, and eligible incentive, up from 3% in 2017. Employees are eligible to participate in the PSP on the first day of their initial date of service. Each year, the Company may also make a discretionary contribution to the PSP. In 2018, employees were eligible to participate in the discretionary contribution portion of the PSP after completing 12 months of employment, and 1,000 hours of service. The employee must be employed on the last day of the calendar year, or retire at the normal retirement age of 65 during the calendar year to receive the discretionary contribution. Effective in 2019, employees are eligible to participate in the discretionary contribution portion of the PSP on the first day of their initial date of service.

Employee Stock Ownership Plan

The Company has an Employee Stock Ownership Plan ("ESOP") for its eligible employees. Employees are eligible to participate upon the attainment of age 21 and the completion of 12 months of service consisting of at least 1,000 hours. Purchases of the Company's stock by the ESOP will be funded by employer contributions or reinvestment of cash dividends.

Total expenses related to the Profit Sharing and ESOP Plans for the years ended December 31, 2018, 2017 and 2016, amounted to approximately $2.6 million, $1.5 million, and $949,000, respectively.

Defined Contribution SERP Plan ("DC SERP")

For executives participating in the DC SERP plan, the Company made a discretionary contribution of 10% of each executive's base salary and bonus to his or her account under the Company's DC SERP, the Executive Deferred Compensation Plan. Total expenses related to the Company's DC SERP for the years ended December 31, 2018, 2017 and 2016, amounted to approximately $209,000, $126,000, and $68,000, respectively.

14. SHARE-BASED COMPENSATION

In 1993, the Company adopted a Stock Option Plan for key employees as an incentive for them to assist the Company in achieving long-range performance goals. During 2005, the Company's shareholders amended the plan to permit the issuance of restricted stock, restricted stock units, and stock appreciation rights.

In 2017, the Company adopted the 2017 Equity and Cash Incentive Plan (the "2017 Plan") and all future awards will be made under the 2017 Plan. The 2017 plan permits the issuance of restricted stock, restricted stock units (both time and performance-based), stock options, and stock appreciation rights.

Stock options time-vest over a five-year period. All options expire ten years from the date granted and have been issued at fair value at the date of grant which, in some instances, may be less than publicly traded values. There were no outstanding stock options at December 31, 2018. A summary of stock option transactions for the periods of December 31, 2018 and 2017, and changes during the years ended on those dates, is presented below:

	2018		2017	
	Number of Options	Weighted Average Exercise Price	Number of Options	Weighted Average Exercise Price
Stock Options				
Outstanding at beginning of year	16,377	$ 29.21	45,612	$ 30.23
Granted	—	—	—	—
Forfeited	—	—	—	—
Expired	(2,600)	29.21	(4,500)	30.11
Exercised	(13,777)	29.21	(24,735)	30.93
Outstanding at end of year	—	$ —	16,377	29.21
Exercisable at end of year	—	$ —	16,377	$ 29.21

Restricted stock awards time-vest either over a three-year or five-year period and have been fair valued as of the date of grant. The holders of restricted stock awards participate fully in the rewards of stock ownership of the Company, including voting and dividend rights. A summary of non-vested restricted shares outstanding as of December 31, 2018 and 2017, and changes during the years ended on those dates, is presented below:

	2018		2017	
	Number of Shares	Weighted Average Grant Value	Number of Shares	Weighted Average Grant Value
Restricted stock				
Non-vested at beginning of year	43,240	$ 53.13	41,957	$ 44.17
Granted	17,373	80.43	18,906	64.62
Vested	(15,760)	50.10	(14,113)	42.62
Forfeited	(3,542)	60.84	(3,510)	49.19
Non-vested at end of year	41,311	$ 65.10	43,240	$ 53.13

Performance-based restricted stock units vest based upon the Company's performance over a three-year period and have been fair valued as of the date of grant. The holders of performance-based restricted stock units do not participate in the rewards of stock ownership of the Company until vested. A summary of non-vested performance-based restricted stock units outstanding as of December 31, 2018 and 2017, and changes during the years ended on those dates, is presented below:

	2018		2017	
	Number of Units	Weighted Average Grant Value	Number of Units	Weighted Average Grant Value
Performance-based restricted stock units				
Non-vested at beginning of year	21,613	$ 56.05	25,941	$ 45.17
Granted	23,511	76.56	12,079	64.72
Vested (Performance achieved)	—	—	—	—
Forfeited	(3,713)	70.68	(8,597)	46.19
Expired (Performance not achieved)	—	—	(7,810)	44.17
Non-vested at end of year	41,411	$ 66.39	21,613	$ 56.05

Time based restricted stock units vest over a three-year-period and have been fair valued as of the date of the grant. The holders of time based restricted stock units do not participate in the rewards of stock ownership of the company until vested. A summary of nonvested time based restricted stock units outstanding as of December, 31 2018 and 2017, and changes during the years ended on those dates, is presented below:

	2018		2017	
	Number of Shares	Weighted Average Grant Value	Number of Shares	Weighted Average Grant Value
Time-based restricted stock units				
Non-vested at beginning of year	—	$ —	—	$ —
Granted	7,839	76.56	—	—
Vested	(225)	76.56	—	—
Forfeited	(837)	76.56	—	—
Non-vested at end of year	6,777	$ 76.56	—	$ —

The following table presents the amounts recognized in the consolidated income statement for restricted stock awards, time-based restricted stock units, and performance-based restricted stock units:

	December 31,		
	2018	2017	2016
		(dollars in thousands)	
Share-based compensation expense	$ 2,592	$ 1,045	$ 997
Related income tax benefit	$ 729	$ 427	$ 407

The 2017 Plan allows Directors of the Company to receive their annual retainer fee in the form of stock in the Company. Total shares issued under the 2017 Plan in the years ended December 31, 2018 and 2017 were 4,164 and 3,672, respectively.

15. FINANCIAL INSTRUMENTS WITH OFF-BALANCE-SHEET RISK

To meet the financing needs of its customers, the Bank is a party to financial instruments with off-balance-sheet risk in the normal course of business. These financial instruments are primarily comprised of commitments to extend credit, commitments to sell residential real estate mortgage loans, risk participation agreements, and standby letters of credit. Those instruments involve, to varying degrees, elements of credit and interest rate risk in excess of the amounts recognized in the consolidated balance sheets.

The Bank's exposure to credit loss in the event of nonperformance by the other party to the financial instrument for loan commitments and standby letters of credit is represented by the contractual amount of those instruments assuming that the amounts are fully advanced and that collateral or other security is of no value. The Bank uses the same credit policies in making commitments and conditional obligations as it does for on-balance-sheet instruments.

Off-balance-sheet financial instruments with contractual amounts that present credit risk included the following:

	December 31, 2018	December 31, 2017
	(dollars in thousands)	
Financial instruments whose contractual amount represents credit risk:		
Commitments to extend credit:		
Unused portion of existing lines of credit	$ 368,410	$ 304,298
Origination of new loans	24,505	45,061
Standby letters of credit	8,752	8,322
Financial instruments whose notional amount exceeds the amount of credit risk:		
Commitments to sell residential mortgage loans	—	1,490

Standby letters of credit are conditional commitments issued by the Bank to guarantee performance of a customer to a third party. Those guarantees are primarily issued to support public and private borrowing arrangements. Most guarantees extend for one year. The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loan facilities to customers. The collateral supporting those commitments varies and may include real property, accounts receivable, or inventory.

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 some of the commitments may expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. The Bank evaluates each customer's creditworthiness on a case-by-case basis. The amount of collateral obtained upon extension of the credit is based on management's credit evaluation of the customer. Collateral held varies, but may include primary residences, accounts receivable, inventory, property, plant and equipment, and income-producing commercial real estate.

See Note 22 - DERIVATIVES AND HEDGING ACTIVITIES for a discussion of the Company's derivatives and hedging activities.

16. COMMITMENTS AND CONTINGENCIES

Lease Commitments. The Company is obligated under various lease agreements covering its main office, branch offices, and other locations. These agreements are accounted for as operating leases and their terms expire between 2019 and 2030 and, in some instances, contain options to renew for periods up to 25 years. The total minimum rentals due in future periods under these agreements in effect at December 31, 2018 were as follows:

Year Ended December 31,	Future Minimum Lease Payments
	(dollars in thousands)
2019	4,448
2020	4,661
2021	4,662
2022	4,553
2023	4,455
Thereafter	17,128
Total minimum lease payments	$ 39,907

Several lease agreements contain clauses calling for escalation of minimum lease payments contingent on increases in real estate taxes, gross income adjustments, percentage increases in the consumer price index, and certain ancillary maintenance costs. Total rental expense was $4.7 million, $4.7 million, and $4.6 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Under the terms of a sublease agreement, the Company will receive minimum annual rental payments of approximately $32,000 through July 31, 2019. Total rental income was $62,000, $64,000, and $76,000 for the years ended December 31, 2018, 2017, and 2016, respectively.

Change in Control Agreements. The Company has entered into agreements with its Chief Executive Officer and with certain other senior officers, whereby, following the occurrence of a change in control of the Company, if employment is terminated (except because of death, retirement, disability, or for "cause" as defined in the agreements) or is voluntarily terminated for "good reason," as defined in the agreements, said officers will be entitled to receive additional compensation, as defined in the agreements.

17. SHAREHOLDERS' EQUITY

Capital guidelines issued by the Federal Reserve Bank (the "FRB") and by the FDIC require that the Company and the Bank maintain minimum capital levels for capital adequacy purposes. These regulations also require banks and their holding companies to maintain higher capital levels to be considered "well-capitalized." Failure to meet minimum capital requirements can initiate certain mandatory, and possibly additional discretionary actions by regulators that, if undertaken, could have a direct material effect on the Company's financial statements. Under capital adequacy guidelines and the regulatory framework for prompt corrective action, there are specific capital guidelines that involve quantitative measures of assets, liabilities, and certain off-balance-sheet items as calculated under regulatory accounting practices. The risk-based capital rules are designed to make regulatory capital more sensitive to differences in risk profiles among bank and bank holding companies, to account for off-balance-sheet exposure, and to minimize disincentives for holding liquid assets.

In July 2013, the Federal Reserve, the Office of the Comptroller of the Currency ("OCC"), and the FDIC approved final rules (the "Capital Rules") establishing a new comprehensive capital framework for U.S. banking organizations. The Capital Rules generally implement the Basel Committee on Banking Supervision's (the "Basel Committee") December 2010 final capital framework referred to as "Basel III" for strengthening international capital standards. The Capital Rules revise the definitions and the components of regulatory capital, as well as address other issues affecting the numerator in banking institutions' regulatory capital ratios. The Capital Rules also address asset risk weights and other matters affecting the denominator in banking institutions' regulatory capital ratios and replace the existing general risk-weighting approach with a more risk-sensitive approach.

The Capital Rules: (i) include "Common Equity Tier 1" ("CET1") and related regulatory capital ratio of CET1 to risk-weighted assets; (ii) specify that Tier 1 capital consists of CET1 and "Additional Tier 1 capital" instruments meeting certain revised requirements; (iii) mandate that most deductions/adjustments to regulatory capital measures be made to CET1 and not to the other components of capital; and (iv) expand the scope of the deductions from and adjustments to capital as compared to existing regulations. Under the Capital Rules, for most banking organizations, including the Company, the most common form of Additional Tier 1 capital is non-cumulative perpetual preferred stock, and the most common forms of Tier 2 capital are subordinated notes and a portion of the allocation for loan and lease losses, in each case, subject to the Capital Rules' specific requirements.

Pursuant to the Capital Rules, effective January 1, 2015, the minimum capital ratios are as follows:

- 4.5% CET1 to risk-weighted assets;
- 6.0% Tier 1 capital (that is, CET1 plus Additional Tier 1 capital) to risk-weighted assets;
- 8.0% Total capital (that is, Tier 1 capital plus Tier 2 capital) to risk-weighted assets; and
- 4.0% Tier 1 capital to average consolidated assets as reported on consolidated financial statements (called "leverage ratio").

The Capital Rules also include a "capital conservation buffer," composed entirely of CET1, in addition to these minimum risk-weighted asset ratios. The capital conservation buffer is designed to absorb losses during periods of economic stress. Banking institutions that do not hold the requisite capital conservation buffer will face constraints on dividends, capital instrument repurchases, interest payments on capital instruments and discretionary bonus payments based on the amount of the shortfall. Thus, the capital standards applicable to the Company include an additional capital conservation buffer of 2.5% of CET1, effectively resulting in minimum ratios inclusive of the capital conservation buffer of (i) CET1 to risk-weighted assets of at least 7%, (ii) Tier 1 capital to risk-weighted assets of at least 8.5%, and (iii) total capital to risk-weighted assets of at least 10.5%.

The Capital Rules provide for a number of deductions from and adjustments to CET1. These include, for example, the requirement that mortgage servicing assets, deferred tax assets arising from temporary differences that could not be realized through net operating loss carrybacks, and significant investments in non-consolidated financial entities be deducted from CET1 to the extent that any one such category exceeds 10% of CET1 or all such items, in the aggregate, exceed 15% of CET1. In November 2017, the Federal Reserve finalized a rule pausing the phase-in of these deductions and adjustments for non-advanced approaches institutions. This rule is in effect pending the comment period and review of the general proposal to simplify the Capital Rules for non-advanced approaches institutions.

In addition, under the current general risk-based capital rules, the effects of accumulated other comprehensive income or loss items included in shareholders' equity (for example, mark-to-market of securities held in the available for sale portfolio) under U.S. generally accepted accounting principles ("GAAP") are reversed for the purposes of determining regulatory capital ratios. Pursuant to the Capital Rules, the effects of certain of the above items are not excluded. However, banking organizations, including the Company, that are not subject to the advanced approaches rule, could make a one-time permanent election to exclude these items. The Company made the one-time permanent election to exclude these items.

The Capital Rules also preclude certain hybrid securities, such as trust preferred securities, from inclusion in bank holding companies' Tier 1 capital, although bank holding companies that had total consolidated assets of less than $15 billion at December 31, 2009 may include trust preferred securities issued prior to May 19, 2010 as a component of Tier 1 capital.

The risk-weighting categories in the Capital Rules are standardized and include a risk-sensitive number of categories, depending on the nature of the assets, generally ranging from 0% for U.S. government and agency securities, to 1,250% for certain credit exposures, and resulting in higher risk weights for a variety of asset classes.

Management believes that as of December 31, 2018 and 2017, the Company and the Bank met all applicable minimum capital requirements and were considered "well-capitalized" by both the FRB and the FDIC. There have been no events or conditions since the end of the year that management believes would have changed the Company's or the Bank's category. In November 2018, the federal banking agencies issued a proposed rule to simplify the regulatory capital requirements for depository institutions and their holding companies with assets of less than $10 billion that meet certain conditions. If a final rule is adopted, it would likely affect the capital requirements applicable to the Company and the Bank.

The Company's and the Bank's actual and required capital measures were as follows:

	Actual		Minimum Capital Required For Capital Adequacy		Minimum Capital Required For Capital Adequacy Plus Capital Conservation Buffer Basel III Phase-In Schedule		Minimum Capital Required For Capital Adequacy Plus Capital Conservation Buffer Basel III Fully Phased In		Minimum To Be Well-Capitalized Under Prompt Corrective Action Provisions	
	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
					(dollars in thousands)					
At December 31, 2018										
Cambridge Bancorp:										
Total capital (to risk-weighted assets)	$189,888	13.2%	$114,666	8.0%	$ 141,541	9.875%	$ 150,500	10.5%	N/A	N/A
Tier I capital (to risk-weighted assets)	173,070	12.1%	86,000	6.0%	112,875	7.875%	121,833	8.5%	N/A	N/A
Common equity tier I capital (to risk-weighted assets)	173,070	12.1%	64,500	4.5%	91,375	6.375%	100,333	7.0%	N/A	N/A
Tier I capital (to average assets)	173,070	8.5%	81,507	4.0%	81,507	4.000%	81,507	4.0%	N/A	N/A
Cambridge Trust Company:										
Total capital (to risk-weighted assets)	$185,507	12.9%	$114,666	8.0%	$ 141,541	9.875%	$ 150,500	10.5%	$143,333	10.0%
Tier I capital (to risk-weighted assets)	168,689	11.8%	86,000	6.0%	112,875	7.875%	121,833	8.5%	114,666	8.0%
Common equity tier I capital (to risk-weighted assets)	168,689	11.8%	64,500	4.5%	91,375	6.375%	100,333	7.0%	93,166	6.5%
Tier I capital (to average assets)	168,689	8.3%	81,507	4.0%	81,507	4.000%	81,507	4.0%	101,884	5.0%
At December 31, 2017										
Cambridge Bancorp:										
Total capital (to risk-weighted assets)	$168,615	13.7%	$ 98,136	8.0%	$ 113,470	9.250%	$ 128,804	10.5%	N/A	N/A
Tier I capital (to risk-weighted assets)	153,281	12.5%	73,602	6.0%	88,936	7.250%	104,270	8.5%	N/A	N/A
Common equity tier I capital (to risk-weighted assets)	153,281	12.5%	55,202	4.5%	70,535	5.750%	85,869	7.0%	N/A	N/A
Tier I capital (to average assets)	153,281	8.1%	76,026	4.0%	76,026	4.000%	76,026	4.0%	N/A	N/A
Cambridge Trust Company:										
Total capital (to risk-weighted assets)	$164,880	13.4%	$ 98,136	8.0%	$ 113,470	9.250%	$ 128,804	10.5%	$122,670	10.0%
Tier I capital (to risk-weighted assets)	149,546	12.2%	73,602	6.0%	88,936	7.250%	104,270	8.5%	98,136	8.0%
Common equity tier I capital (to risk-weighted assets)	149,546	12.2%	55,202	4.5%	70,535	5.750%	85,869	7.0%	79,736	6.5%
Tier I capital (to average assets)	149,546	7.9%	76,026	4.0%	76,026	4.000%	76,026	4.0%	95,033	5.0%

18. OTHER INCOME

The components of other income were as follows:

	For the Year Ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
Safe deposit box income	$ 342	$ 348	$ 366
Loan fee income	358	473	229
Miscellaneous income	569	334	326
Total other income	$ 1,269	$ 1,155	$ 921

19. OTHER OPERATING EXPENSES

The components of other operating expenses were as follows:

	For the Year Ended December 31,		
	2018	2017	2016
	(dollars in thousands)		
Director fees	$ 724	$ 576	$ 513
Charitable donations & sponsorships	518	432	434
Printing and supplies	272	251	291
Travel and entertainment	456	339	331
Dues and memberships	293	260	276
Physical security	131	172	233
Postage and mailing	201	229	241
Miscellaneous expense	(331)	885	613
Total other operating expenses	$ 2,264	$ 3,144	$ 2,932

Miscellaneous expense in 2018 and 2017 includes the reclassification adjustment for retirement plan expenses as required upon adoption of ASU 2017-07.

20. OTHER COMPREHENSIVE INCOME

Comprehensive income is defined as all changes to equity except investments by and distributions to shareholders. Net income is a component of comprehensive income, with all other components referred to in the aggregate as "other comprehensive income." The Company's other comprehensive income consists of unrealized gains or losses on securities held at year-end classified as available for sale and the component of the unfunded retirement liability computed in accordance with the requirements of ASC 715, "*Compensation – Retirement Benefits.*" The before-tax and after-tax amount of each of these categories, as well as the tax (expense)/benefit of each, is summarized as follows:

	For the Year Ended December 31, 2018			For the Year Ended December 31, 2017			For the Year Ended December 31, 2016		
	Before Tax Amount	Tax (Expense) or Benefit	Net-of-tax Amount	Before Tax Amount	Tax (Expense) or Benefit	Net-of-tax Amount	Before Tax Amount	Tax (Expense) or Benefit	Net-of-tax Amount
	(dollars in thousands)								
Unrealized (losses)/gains on available for sale Securities									
Unrealized holding (losses)/gains arising during the period	$ (231)	$ (11)	$ (242)	$ 187	$ (59)	$ 128	$(1,224)	$ 489	$ (735)
Reclassification adjustment for (gains)/losses recognized in net income	(2)	—	(2)	3	(2)	1	(438)	157	(281)
Derivatives									
Change in interest rate contracts	1,045	(294)	751	—	—	—	—	—	—
Defined benefit retirement plans									
Net change in retirement liability	124	(35)	89	6,545	(2,674)	3,871	(738)	301	(437)
Total Other Comprehensive Income/(Loss)	$ 936	$ (340)	$ 596	$ 6,735	$ (2,735)	$ 4,000	$(2,400)	$ 947	$(1,453)

Reclassifications out of Accumulated Other Comprehensive Income ("AOCI") are presented below:

Details about Accumulated Other Comprehensive Income (Loss) Components	For the Year Ended December 31, 2018	2017	2016	Affected Line Item in the Statement where Net Income is Presented
		(dollars in thousands)		
Unrealized gains and losses on available for sale securities	$ 2	$ (3)	$ 438	(Loss) gain on disposition of investment securities
Tax benefit or (expense)	—	2	(157)	Provision for income taxes
Net of tax	$ 2	$ (1)	$ 281	Net income

21. EARNINGS PER SHARE

The following represents a reconciliation between basic and diluted earnings per share:

	For the Year Ended December 31, 2018	2017	2016
		(dollars in thousands, except per share data)	
Earnings per common share - basic:			
Numerator:			
Net income	$ 23,881	$ 14,816	$ 16,896
Less dividends and undistributed earnings allocated to participating securities	(239)	(157)	(182)
Net income applicable to common shareholders	$ 23,642	$ 14,659	$ 16,714
Denominator:			
Weighted average common shares outstanding	4,062	4,031	3,990
Earnings per common share – basic	$ 5.82	$ 3.64	$ 4.19
Earnings per common share - diluted:			
Numerator:			
Net income	$ 23,881	$ 14,816	$ 16,896
Less dividends and undistributed earnings allocated to participating securities	(239)	(157)	(181)
Net income applicable to common shareholders	$ 23,642	$ 14,659	$ 16,715
Denominator:			
Weighted average common shares outstanding	4,062	4,031	3,990
Dilutive effect of common stock equivalents	37	35	39
Weighted average diluted common shares outstanding	4,099	4,066	4,029
Earnings per common share – diluted	$ 5.77	$ 3.61	$ 4.15

22. DERIVATIVES AND HEDGING ACTIVITIES

The Company utilizes interest rate swaps and floors to mitigate exposure to interest rate risk and to facilitate the needs of our customers. The Company's derivative financial instruments are used to manage differences in the amount, timing, and duration of the Company's known or expected cash receipts principally related to the Company's assets.

Cash Flow Hedges of Interest Rate Risk

The Company uses interest floors to manage its exposure to interest rate movements. Interest rate floors designated as cash flow hedges involve the receipt of variable-rate amounts from a counterparty if interest rates fall below the strike rate on the contract in exchange for an up-front premium. The Company executed an interest rate floor with a notional value of $150.0 million during the fourth quarter of 2018.

For derivatives designated and that qualify as cash flow hedges of interest rate risk, the gain or loss on the derivative is recorded in accumulated other comprehensive income and subsequently reclassified into interest income in the same period(s) during which the hedged transaction affects earnings. Gains and losses on the derivative representing hedge components excluded from the assessment of effectiveness are recognized over the life of the hedge on a systematic and rational basis. The earnings recognition of excluded components is presented in interest income. Amounts reported in accumulated other comprehensive income related to derivatives will be reclassified to interest income as interest payments are received on the Company's variable-rate assets.

Non-designated Hedges

Derivatives not designated as hedges are not speculative and result from a service the Company provides to certain customers. For the Company's customers, these are interest rate swaps and risk participation agreements.

Interest Rate Swaps. The Company enters into interest rate swap contracts to help commercial loan borrowers manage their interest rate risk. The interest rate swap contracts with commercial loan borrowers allow them to convert floating-rate loan payments to fixed-rate loan payments. When the Bank enters into an interest rate swap contract with a commercial loan borrower, it simultaneously enters into a "mirror" swap contract with a third party. The third party exchanges the client's fixed-rate loan payments for floating-rate loan payments. These derivatives are not designated as hedges and therefore, changes in fair value are recognized in earnings. Because these derivatives have mirror-image contractual terms, the changes in fair value substantially offset each other through earnings. Fees earned in connection with the execution of derivatives related to this program are recognized in earnings through other loan related derivative income.

The credit risk associated with swap transactions is the risk of default by the counterparty. To minimize this risk, the Company enters into interest rate agreements only with highly rated counterparties that management believes to be creditworthy. The notional amounts of these agreements do not represent amounts exchanged by the parties and, thus, are not a measure of the potential loss exposure.

Risk Participation Agreements. The Company enters into risk participation agreements ("RPAs") with other banks participating in commercial loan arrangements. Participating banks guarantee the performance on borrower-related interest rate swap contracts. RPAs are derivative financial instruments and are recorded at fair value. These derivatives are not designated as hedges and therefore, changes in fair value are recognized in earnings with a corresponding offset within other assets or other liabilities.

Under a risk participation-out agreement, a derivative asset, the Company participates out a portion of the credit risk associated with the interest rate swap position executed with the commercial borrower, for a fee paid to the participating bank. Under a risk participation-in agreement, a derivative liability, the Company assumes, or participates in, a portion of the credit risk associated with the interest rate swap position with the commercial borrower, for a fee received from the other bank.

The following tables present the notional amount, the location, and fair values of derivative instruments in the Company's Consolidated Balance Sheets:

	December 31, 2018					
	Derivative Assets			Derivative Liabilities		
	Notional Amount	Balance Sheet Location	Fair Value	Notional Amount	Balance Sheet Location	Fair Value
	(dollars in thousands)			(dollars in thousands)		
Derivatives designated as hedging instruments						
Interest rate contracts	$ 150,000	Other Assets	$ 1,970	$ —	Other Liabilities	$ —
Total derivatives designated as hedging instruments			$ 1,970			$ —
Derivatives not designated as hedging instruments						
Loan related derivative contracts						
Interest rate swaps with customers	$ 150,489	Other Assets	$ 5,782	$ —	Other Liabilities	$ —
Mirror swaps with counterparties	—	Other Assets	—	150,489	Other Liabilities	5,782
Risk participation agreements out to counterparties	19,000	Other Assets	28	—	Other Liabilities	—
Risk participation agreements in with counterparties	—	Other Assets	—	63,825	Other Liabilities	179
Total derivatives not designated as hedging instruments			$ 5,810			$ 5,961

	December 31, 2017					
	Derivative Assets			Derivative Liabilities		
	Notional Amount	Balance Sheet Location	Fair Value	Notional Amount	Balance Sheet Location	Fair Value
	(dollars in thousands)			(dollars in thousands)		
Derivatives designated as hedging instruments						
Interest rate contracts	$ —	Other Assets	$ —	$ —	Other Liabilities	$ —
Total derivatives designated as hedging instruments			$ —			$ —
Derivatives not designated as hedging instruments						
Loan related derivative contracts						
Interest rate swaps with customers	$ 74,758	Other Assets	$ 1,859	$ —	Other Liabilities	$ —
Mirror swaps with counterparties	—	Other Assets	—	74,758	Other Liabilities	1,859
Risk participation agreements out to counterparties	—	Other Assets	—	—	Other Liabilities	—
Risk participation agreements in with counterparties	—	Other Assets	—	38,494	Other Liabilities	81
Total derivatives not designated as hedging instruments			$ 1,859			$ 1,940

The following table presents the effect of cash flow hedge accounting on Accumulated Other Comprehensive Income as of December 31, 2018:

	Amount of Gain or (Loss) Recognized in OCI on Derivative	Amount of Gain or (Loss) Recognized in OCI Included Component	Amount of Gain or (Loss) Recognized in OCI Excluded Component	Location of Gain or (Loss)	Amount of Gain or (Loss) Reclassified from Accumulated OCI into Income	Amount of Gain or (Loss) Reclassified from Accumulated OCI into Income Included Component	Amount of Gain or (Loss) Reclassified from Accumulated OCI into Income Excluded Component
	2018				2018		
	(dollars in thousands)				(dollars in thousands)		
Interest rate contracts	$ 1,002	$ —	$ 1,002	Interest Income	$ (43)	$ —	$ (43)
Total	$ 1,002	$ —	$ 1,002		$ (43)	$ —	$ (43)

The Company had no cash flow hedges for the year ended December 31, 2017.

During 2019, the Company estimates that an additional $194,000 will be reclassified out of accumulated other comprehensive income into earnings, as a reduction to interest income.

The following table presents the effect of the Company's derivative financial instruments on the Income Statement as of December 31, 2018:

	Year Ended December 31, 2018
	Interest Income (Expense)
	(dollars in thousands)
Total amounts of income and expense line items presented in the income statement in which the effects of fair value or cash flow hedges are recorded	$ (43)
The effects of fair value and cash flow hedging:	
Gain or (loss) on cash flow hedging relationships in Subtopic 815-20	
Interest rate contracts	
Amount of gain or (loss) reclassified from accumulated other comprehensive income into income	$ (43)
Amount of Gain or (Loss) Reclassified from Accumulated OCI into Income - Included Component	—
Amount of Gain or (Loss) Reclassified from Accumulated OCI into Income - Excluded Component	$ (43)

The following table presents the effect of the Company's derivative financial instruments that are not designated as hedging instruments on the Income Statement as of the periods presented:

		Amount of Gain or (Loss) Recognized in Income on Derivative		
		Year Ended December 31	Year Ended December 31	Year Ended December 31
		2018	2017	2016
	Location of Gain or (Loss)		(dollars in thousands)	
Other contracts	Other income	$ 276	$ 426	$ 209
Total		$ 276	$ 426	$ 209

Credit-risk-related Contingent Features

The Company's derivative agreements with institutional counterparties contain various credit-risk related contingent provisions, such as requiring the Company to maintain a well-capitalized capital position. If the Company fails to meet these conditions, the counterparties could request the Company make immediate payment or demand that the Company provide immediate and ongoing full collateralization on derivative positions in net liability positions.

As of December 31, 2018, the fair value of derivatives in a net liability position, which includes accrued interest but excludes any adjustment for nonperformance risk, related to these agreements was $811,000. As of December 31, 2018, the Company has minimum collateral posting thresholds with certain of its derivative counterparties and has posted collateral of $260,000. If the Company had breached any of these provisions at December 31, 2018, it could have been required to settle its obligations under the agreements at their termination value $811,000.

By using derivatives, the Company is exposed to credit risk to the extent that counterparties to the derivative contracts do not perform as required. Should a counterparty fail to perform under the terms of a derivative contract, the Company's credit exposure on interest rate swaps is limited to the net positive fair value and accrued interest of all swaps with each counterparty. The Company seeks to minimize counterparty credit risk through credit approvals, limits, monitoring procedures, and obtaining collateral, where appropriate. Institutional counterparties must have an investment grade credit rating and be approved by the Company's Board of Directors. As such, management believes the risk of incurring credit losses on derivative contracts with institutional counterparties is remote. The Company's exposure relating to institutional counterparties was $743,000 and $1.2 million at December 31, 2018 and December 31, 2017, respectively. The Company's exposure relating to customer counterparties was approximately $3.9 million and $342,000 at December 31, 2018 and December 31, 2017, respectively. Credit exposure may be reduced by the value of collateral pledged by the counterparty.

Balance Sheet Offsetting

Certain financial instruments may be eligible for offset in the consolidated balance sheet and/or subject to master netting arrangements or similar agreements. The Company's derivative transactions with institutional counterparties are generally executed under International Swaps and Derivative Association ("ISDA") master agreements which include "right of set-off" provisions. In such cases there is generally a legally enforceable right to offset recognized amounts and there may be an intention to settle such amounts on a net basis. Generally, the Company does not offset such financial instruments for financial reporting purposes.

The following tables present the information about financial instruments that are eligible for offset in the consolidated balance sheet as December 31, 2018 and December 31, 2017:

	Gross Amounts of Recognized	Gross Amounts Offset	Net Amounts Recognized	Gross Amounts Not Offset: Financial Instruments	Gross Amounts Not Offset: Collateral Pledged (Received)	Net Amount
	December 31, 2018 (dollars in thousands)					
Offsetting of Derivative Assets						
Derivative Assets	$ 7,780	$ —	$ 7,780	$ 3,099	$ (743)	$ 3,938
Offsetting of Derivative Liabilities						
Derivative Liabilities	$ 5,961	$ —	$ 5,961	$ 3,099	$ 260	$ 2,602

	Gross Amounts of Recognized	Gross Amounts Offset	Net Amounts Recognized	Gross Amounts Not Offset: Financial Instruments	Gross Amounts Not Offset: Collateral Pledged (Received)	Net Amount
	December 31, 2017 (dollars in thousands)					
Offsetting of Derivative Assets						
Derivative Assets	$ 1,859	$ —	$ 1,859	$ 326	$ (1,131)	$ 402
Offsetting of Derivative Liabilities						
Derivative Liabilities	$ 1,940	$ —	$ 1,940	$ 326	$ —	$ 1,614

23. FAIR VALUE MEASUREMENTS

The following is a summary of the carrying values and estimated fair values of the Company's significant financial instruments as of the dates indicated:

	December 31, 2018		December 31, 2017	
	Carrying Value	Estimated Fair Value	Carrying Value	Estimated Fair Value
	(dollars in thousands)			
Financial assets				
Cash and cash equivalents	$ 18,473	$ 18,473	$ 103,591	$ 103,591
Securities available for sale	168,163	168,163	205,017	205,017
Securities held to maturity	282,869	281,310	232,188	233,554
Loans, net	1,543,004	1,484,905	1,335,579	1,304,719
Loans held for sale	—	—	—	—
FHLB Boston stock	6,844	6,844	4,242	4,242
Accrued interest receivable	5,762	5,762	5,128	5,128
Mortgage servicing rights	666	941	793	1,049
Interest rate contracts	1,970	1,970	—	—
Loan level interest rate swaps	5,782	5,782	1,859	1,859
Risk participation agreements out to counterparties	28	28	—	—
Financial liabilities				
Deposits	1,811,410	1,809,051	1,775,400	1,772,838
Short-term borrowings	90,000	90,000	—	—
Long-term borrowings	3,409	3,363	3,579	3,559
Loan level interest rate swaps	5,782	5,782	1,859	1,859
Risk participation agreements in with counterparties	179	179	81	81

The Company follows ASC 820, *"Fair Value Measurements and Disclosures,"* for financial assets and liabilities. ASC 820 defines fair value, establishes a framework for measuring fair value, and expands disclosure requirements about fair value measurements. ASC 820, among other things, emphasizes that fair value is a market-based measurement, not an entity-specific measurement, and states that a fair value measurement should be determined based on the assumptions the market participants would use in pricing the asset or liability. In addition, ASC 820 specifies a hierarchy of valuations techniques based on whether the types of valuation information ("inputs") are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Company's market assumptions. These two types of inputs have created the following fair value hierarchy:

- Level 1 – Quoted prices for identical assets or liabilities in active markets.
- Level 2 – Quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in inactive markets; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets.
- Level 3 – Valuations derived from techniques in which one or more significant inputs or significant value drivers are unobservable in the markets and which reflect the Company's market assumptions.

Under ASC 820, fair values are based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When available, the Company uses quoted market prices to determine fair value. If quoted prices are not available, fair value is based upon valuation techniques, such as matrix pricing or other models that use, where possible, current market-based or independently sourced market parameters, such as interest rates. If observable market-based inputs are not available, the Company uses unobservable inputs to determine appropriate valuation adjustments using methodologies applied consistently over time.

Valuation techniques based on unobservable inputs are highly subjective and require judgments regarding significant matters, such as the amount and timing of future cash flows and the selection of discount rates that may appropriately reflect market and credit risks. Changes in these judgments often have a material impact on the fair value estimates. In addition, since these estimates are as of a specific point in time, they are susceptible to material near-term changes. The fair values disclosed do not reflect any premium or discount that could result from offering significant holdings of financial instruments at bulk sale, nor do they reflect the possible tax ramifications or estimated transaction costs. Changes in economic conditions may also dramatically affect the estimated fair values.

The Company uses fair value measurements to record fair value adjustments to certain assets and to determine fair value disclosures. Securities available for sale, and derivative instruments and hedges are recorded at fair value on a recurring basis. Additionally, from time to time, the Company may be required to record at fair value other assets on a nonrecurring basis, such as collateral dependent impaired loans.

The following tables summarize certain assets reported at fair value on a recurring basis:

	Fair Value as of December 31, 2018			
	Level 1	**Level 2**	**Level 3**	**Total**
		(dollars in thousands)		
Measured on a recurring basis				
Securities available for sale				
U.S. GSE obligations	$ —	$ 74,039	$ —	$ 74,039
Mortgage-backed securities	—	89,268	—	89,268
Corporate debt securities	—	4,856	—	4,856
Mutual funds	—	—	—	—
Other assets				
Interest rate swaps with customers	—	5,782	—	5,782
Risk participation agreements out to counterparties	—	28	—	28
Interest rate contracts	—	1,970	—	1,970
Other liabilities				
Mirror swaps with counterparties	—	5,782	—	5,782
Risk participation agreements in with counterparties	—	179	—	179

	Fair Value as of December 31, 2017			
	Level 1	Level 2	Level 3	Total
	(dollars in thousands)			
Measured on a recurring basis				
Securities available for sale				
U.S. GSE obligations	$ —	$ 88,791	$ —	$ 88,791
Mortgage-backed securities	—	110,626	—	110,626
Corporate debt securities	—	5,001	—	5,001
Mutual funds	599	—	—	599
Other assets				
Interest rate swaps with customers	—	1,859	—	1,859
Risk participation agreements out to counterparties	—	—	—	—
Interest rate cash flow derivative	—	—	—	—
Other liabilities				
Mirror swaps with counterparties	—	1,859	—	1,859
Risk participation agreements in with counterparties	—	81	—	81

There were no assets measured at fair value on a non-recurring basis during the year ended December 31, 2018 and 2017.

There were no transfers between fair value levels for the years ended December 31, 2018 and 2017.

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

Investment Securities

For investment securities, fair values are primarily based upon valuations obtained from a national pricing service which uses matrix pricing with inputs that are observable in the market or can be derived from, or corroborated by, observable market data. When available, quoted prices in active markets for identical securities are utilized.

Loans Held for Sale

For loans held for sale, fair values are estimated using projected future cash flows, discounted at rates based upon either trades of similar loans or mortgage-backed securities, or at current rates at which similar loans would be made to borrowers with similar credit ratings and for similar remaining maturities.

Loans

For most categories of loans, fair values are estimated using projected future cash flows, discounted at rates based upon current rates at which similar loans would be made to borrowers with similar credit ratings, and for similar remaining maturities. Projected estimated cash flows are adjusted for prepayment assumptions, liquidity premium assumptions, and credit loss assumptions. Loans that are deemed to be impaired in accordance with ASC 310, “Receivables,” are valued based upon the lower of cost or fair value of the underlying collateral.

FHLB of Boston Stock

The fair value of FHLB of Boston stock equals its carrying value since such stock is only redeemable at its par value.

Deposits

The fair value of non-maturity deposit accounts is the amount payable on demand at the reporting date. This amount does not take into account the value of the Bank’s long-term relationships with core depositors. The fair value of fixed-maturity certificates of deposit is estimated using a replacement cost of funds approach and is based upon rates currently offered for deposits of similar remaining maturities.

Long-Term Borrowings

For long-term borrowings, fair values are estimated using future cash flows, discounted at rates based upon current costs for debt securities with similar terms and remaining maturities.

Other Financial Assets and Liabilities

Cash and cash equivalents, accrued interest receivable, and short-term borrowings have fair values which approximate their respective carrying values because these instruments are payable on demand or have short-term maturities and present relatively low credit risk and interest rate risk.

Derivative Instruments and Hedges

The valuation of these instruments is determined using widely accepted valuation techniques including discounted cash flow analysis on the expected cash flows of each derivative. This analysis reflects the contractual terms of the derivatives, including the period to maturity, and uses observable market-based inputs, including interest rate curves and implied volatilities. The Bank incorporates credit valuation adjustments to appropriately reflect nonperformance risk in the fair value measurements. In adjusting the fair value of its derivative contracts for the effect of nonperformance risk, the Bank has considered the impact of netting and any applicable credit enhancements, such as collateral postings.

Off-Balance-Sheet Financial Instruments

In the course of originating loans and extending credit, the Bank will charge fees in exchange for its commitment. While these commitment fees have value, the Bank has not estimated their value due to the short-term nature of the underlying commitments and their immateriality.

Values Not Determined

In accordance with ASC 820, the Company has not estimated fair values for non-financial assets such as banking premises and equipment, goodwill, the intangible value of the Bank's portfolio of loans serviced for itself, and the intangible value inherent in the Bank's deposit relationships (i.e., core deposits), among others. Accordingly, the aggregate fair value amounts presented do not represent the underlying value of the Company.

24. QUARTERLY RESULTS OF OPERATIONS (UNAUDITED)

2018 Quarters	Fourth	Third	Second	First
		(dollars in thousands, except share data)		
Interest and Dividend Income	$ 18,385	$ 17,602	$ 16,936	$ 16,132
Interest Expense	1,975	1,431	1,082	979
Net Interest and Dividend Income	16,410	16,171	15,854	15,153
Provision for (Release of) Loan Losses	715	457	(79)	409
Net Interest and Dividend Income after Provision for Loan Losses	15,695	15,714	15,933	14,744
Noninterest Income	8,038	8,929	7,844	8,178
Noninterest Expense	16,842	15,879	15,765	15,501
Income Before Taxes	6,891	8,764	8,012	7,421
Income Taxes	1,585	2,105	1,901	1,616
Net Income	$ 5,306	$ 6,659	$ 6,111	$ 5,805
Share Data:				
Average Shares Outstanding, Basic	4,065,681	4,064,620	4,059,927	4,053,355
Average Shares Outstanding, Diluted	4,102,546	4,101,378	4,094,489	4,071,975
Basic Earnings Per Share	$ 1.29	$ 1.62	$ 1.49	$ 1.42
Diluted Earnings Per Share	$ 1.28	$ 1.61	$ 1.48	$ 1.41

2017 Quarters	Fourth	Third	Second	First
		(dollars in thousands, except share data)		
Interest and Dividend Income	$ 15,744	$ 15,673	$ 15,101	$ 14,673
Interest Expense	970	1,034	871	712
Net Interest and Dividend Income	14,774	14,639	14,230	13,961
Provision for (Release of) Loan Losses	2	310	20	30
Net Interest and Dividend Income after Provision for Loan Losses	14,772	14,329	14,210	13,931
Noninterest Income	7,575	7,977	7,345	7,327
Noninterest Expense	15,012	14,602	14,732	14,946
Income Before Taxes	7,335	7,704	6,823	6,312
Income Taxes	6,371	2,694	2,309	1,984
Net Income	$ 964	$ 5,010	$ 4,514	$ 4,328
Share Data:				
Average Shares Outstanding, Basic	4,038,948	4,037,026	4,034,397	4,011,925
Average Shares Outstanding, Diluted	4,073,707	4,070,332	4,068,360	4,050,791
Basic Earnings Per Share	$ 0.24	$ 1.23	$ 1.11	$ 1.07
Diluted Earnings Per Share	$ 0.23	$ 1.22	$ 1.10	$ 1.06

25. CONDENSED FINANCIAL STATEMENTS OF PARENT COMPANY

The condensed balance sheets of Cambridge Bancorp, the Parent Company, as of December 31, 2018 and 2017 and the condensed statements of income and cash flows for each of the years in the three-year period ended December 31, 2018 are presented below. The statements of changes in shareholders' equity are identical to the consolidated statements of changes in shareholders' equity and are therefore not presented here.

CONDENSED BALANCE SHEET

	December 31, 2018	December 31, 2017
	(dollars in thousands)	
ASSETS		
Cash	$ 4,412	$ 3,735
Investment in subsidiary, at equity	162,614	144,222
Total assets	$ 167,026	$ 147,957
SHAREHOLDERS' EQUITY		
Shareholders' equity	$ 167,026	$ 147,957
Total shareholders' equity	$ 167,026	$ 147,957

CONDENSED STATEMENTS OF INCOME

	For the Year Ended December 31, 2018	2017	2016
		(dollars in thousands)	
Income			
Dividends from subsidiary	$ 8,615	$ 8,052	$ 3,412
Total income	8,615	8,052	3,412
Expenses			
Other expenses	116	—	—
Total expenses	116	—	—
Income before income taxes and equity in undistributed income of subsidiary	8,499	8,052	3,412
Income tax benefit	(32)	—	—
Income of parent company	8,531	8,052	3,412
Equity in undistributed income of subsidiary	15,350	6,764	13,484
Net income	$ 23,881	$ 14,816	$ 16,896

CONDENSED STATEMENTS OF CASH FLOWS

	For the Year Ended December 31,		
	2018	2017	2016
		(dollars in thousands)	
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 23,881	$ 14,816	$ 16,896
Adjustments to reconcile net income to net cash provided by operating activities			
Undistributed income of subsidiary	(15,350)	(6,764)	(13,484)
Net cash provided by operating activities	8,531	8,052	3,412
CASH FLOWS FROM BY FINANCING ACTIVITIES:			
Proceeds from the issuance of common stock	761	1,522	2,020
Repurchase of common stock	(574)	(470)	(1,560)
Cash dividends paid on common stock	(8,041)	(7,582)	(7,428)
Net cash used in financing activities	(7,854)	(6,530)	(6,968)
Net increase (decrease) in cash	677	1,522	(3,556)
Cash at beginning of year	3,735	2,213	5,769
Cash at end of year	$ 4,412	$ 3,735	$ 2,213

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders
Cambridge Bancorp:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Cambridge Bancorp and subsidiaries (the “Company”) as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, changes in shareholders’ equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively, the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission”, and our report dated March 18, 2019 expressed an unqualified opinion on the effectiveness of the Company’s internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. 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 audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company’s auditor since 2006.

Boston, Massachusetts
March 18, 2019

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders
Cambridge Bancorp:

Opinion on Internal Control Over Financial Reporting

We have audited Cambridge Bancorp and subsidiaries' (the "Company") internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively, the "consolidated financial statements"), and our report dated March 18, 2019 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

Boston, Massachusetts
March 18, 2019

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Disclosure Controls and Procedures

As required by Rules 13a-15 and 15d-15 of the Securities Exchange Act of 1934, the Company has evaluated, with the participation of management, including the Chief Executive Officer and the Chief Financial Officer, as of the end of the period covered by this report, the effectiveness of the design and operation of its disclosure controls and procedures.

Based on such evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that such disclosure controls and procedures were effective as of December 31, 2018 in ensuring that material information required to be disclosed by the Company, including its consolidated subsidiaries:

a) was made known to the certifying officers by others within the Company and its consolidated subsidiaries in the reports that it files or submits under the Exchange Act; and

b) is recorded, processed, summarized, and reported within the time periods specified in the Securities Exchange Commission rules and forms.

On a quarterly basis, the Company evaluates the disclosure controls and procedures and may, from time to time, make changes aimed at enhancing their effectiveness and to ensure that the Company's systems evolve with its business.

Changes in Internal Controls over Financial Reporting

There have been no changes in the Company's internal controls over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal controls over financial reporting in 2018.

Management's Report on Internal Control Over Financial Reporting

The management of the Company is responsible for establishing and maintaining adequate internal control (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended) over financial reporting. The Company's internal control over financial reporting is a process designed to provide reasonable assurance to the Company's Chief Executive Officer and Chief Financial Officer regarding the reliability of financial reporting and preparation of the Company's financial statements in accordance with accounting principles generally accepted in the U.S.

In designing and evaluating the Company's disclosure controls and procedures, the Company and its management recognize that any controls and procedures, no matter how well designed and operated, can provide only a reasonable assurance of achieving the desired control objectives, and management was required to apply its judgment in evaluating and implementing possible controls and procedures. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation and may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2018. In making this assessment, management used the criteria set forth in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on management's assessment, the Company believes that, as of December 31, 2018, the Company's internal control over financial reporting is effective based on the criteria established by *Internal Control—Integrated Framework (2013)* issued by COSO.

KPMG LLP, an independent registered public accounting firm, has audited the Company's consolidated financial statements included in this Annual Report on Form 10-K and, as part of its audit, has issued its report, included herein on page 100, on the effectiveness of the Company's internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this Item is incorporated herein by reference to the captions “Proposal 1: Election of Directors,” “Board of Directors and Committees – Board Committees – Audit Committee,” “Executive Officers,” and “Section 16(a) Beneficial Ownership Reporting Compliance” in the Company’s definitive proxy statement for the 2019 Annual Meeting of Shareholders (the “Proxy Statement”), which will be filed with the SEC no later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

Item 11. Executive Compensation.

The information required by this Item is incorporated herein by reference to the captions “Compensation Discussion and Analysis,” “Director Compensation Table,” “Executive Compensation,” “Compensation Committee Interlocks and Insider Participation,” and “Compensation Committee Report” in the Company’s Proxy Statement, which are incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this Item is incorporated herein by reference to the caption “Proposal 1: Election of Directors” in the Proxy Statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this Item is incorporated herein by reference to the captions “Indebtedness and Other Transactions,” “Policies and Procedures for Related Party Transactions” and “Corporate Governance – Director Independence” in the Company’s Proxy Statement.

Item 14. Principal Accounting Fees and Services.

The information required by this Item is incorporated herein by reference to the caption “Independent Registered Public Accounting Firm” in the Proxy Statement.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) Documents filed as a Part of this Annual Report on Form 10-K:

(1) Financial Statements—Included in Item 8 of this Annual Report on Form 10-K.

Audited Consolidated Financial Statements

(2) Financial Statement Schedules

1. **Financial Statements**. The financial statements of the Company required in response to this item are listed in response to Part II, Item 8 of this Annual Report on Form 10-K.
2. **Financial Statement Schedules**. There are no financial statement schedules that are required to be filed as part of this form since they are not applicable or the information is included in the consolidated financial statements.
3. **Exhibits**. The following exhibits are included as part of this Form 10-K.

(3) Index to Exhibits.

Exhibit Number	Description
2.1	Agreement and Plan of Merger, dated December 5, 2018, by and between Cambridge Bancorp, Cambridge Trust Company and Optima Bank & Trust Company (incorporated by reference to Exhibit 2.1 of the Form 8-K filed with the SEC on December 6, 2018)
3.1	Articles of Organization (incorporated by reference to Exhibit 3.1 of the Form 8-K filed with the SEC on June 19, 2018)
3.2	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
4.1	Specimen stock certificate (incorporated by reference to Exhibit 4.1 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.1**	Cambridge Bancorp Amended 1993 Stock Option Plan (incorporated by reference to Exhibit 10.1 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.1(a) **	Cambridge Bancorp Amended 1993 Stock Option Plan—Form of Restricted Stock Agreement (incorporated by reference to Exhibit 10.1(a) of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.1(b) **	Cambridge Bancorp Amended 1993 Stock Option Plan—Form of Restricted Stock Unit Agreement (incorporated by reference to Exhibit 10.1(b) of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.1(c) **	Cambridge Bancorp Amended 1993 Stock Option Plan—Form of Nonstatutory Stock Option Agreement (incorporated by reference to Exhibit 10.1(c) of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)

Exhibit Number	Description
10.1(d) **	Cambridge Bancorp Amended 1993 Stock Option Plan—Form of Incentive Stock Option Agreement (incorporated by reference to Exhibit 10.1(d) of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.2**	Cambridge Bancorp 2017 Equity and Cash Incentive Plan (incorporated by reference to Exhibit 10.2 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.3**	Cambridge Bancorp Director Stock Plan, amended as of April 25, 2011 (incorporated by reference to Exhibit 10.3 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.4**	2016 Annual Incentive Plan (incorporated by reference to Exhibit 10.4 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.5**	The Executive Nonqualified Excess Plan of Cambridge Trust Company (incorporated by reference to Exhibit 10.5 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.6**	Cambridge Trust Company Amended and Restated Supplemental Executive Retirement Agreement for Denis K. Sheahan, dated July 7, 2017 (incorporated by reference to Exhibit 10.6 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.7**	Cambridge Trust Company Supplemental Executive Retirement Agreement for Lynne M. Burrow, dated February 27, 2008 (incorporated by reference to Exhibit 10.7 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.8**	Cambridge Trust Company Supplemental Executive Retirement Agreement for Albert R. Rietheimer, dated February 21, 2008 (incorporated by reference to Exhibit 10.8 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.9**	Cambridge Trust Company Supplemental Executive Retirement Agreement for Michael A. Duca, dated August 14, 2008 (incorporated by reference to Exhibit 10.9 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.10**	First Amendment to Cambridge Trust Company Supplemental Executive Retirement Agreement for Michael A Duca, dated December 22, 2016 (incorporated by reference to Exhibit 10.10 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.11**	Cambridge Trust Company Supplemental Executive Retirement Agreement for Martin B. Millane, Jr., dated January 1, 2016 (incorporated by reference to Exhibit 10.11 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.12**	Change in Control Agreement with Denis K. Sheahan, dated December 21, 2015 (incorporated by reference to Exhibit 10.12 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.13**	Change in Control Agreement with Lynne M. Burrow, dated September 16, 2008 (incorporated by reference to Exhibit 10.13 of Amendment No. 2 of the Registration Statement File No. 1-38184 on Form 10 filed with the SEC on October 4, 2017)
10.14**	Change in Control Agreement with Michael Carotenuto, dated November 20, 2018 (incorporated by reference to Exhibit 10.1 of the Form 8-K filed with the SEC on November 22, 2018)
10.15**	Change in Control Agreement with Martin Millane, dated November 20, 2018 (incorporated by reference to Exhibit 10.2 of the Form 8-K filed with the SEC on November 22, 2018)
10.16**	Change in Control Agreement with Mark D. Thompson, dated September 17, 2017 (incorporated by reference to Exhibit 10.1 of the Form 8-K filed with the SEC on November 30, 2017)
10.17**	Change in Control Agreement with Jennifer Pline, dated November 20, 2018 (incorporated by reference to Exhibit 10.3 of the Form 8-K filed with the SEC on November 22, 2018)
10.18**	Change in Control Agreement with Daniel R. Morrison, dated December 5, 2018
10.19**	Cambridge Trust Company Supplemental Executive Retirement Agreement for Mark D. Thompson, dated September 25, 2017 (incorporated by reference to Exhibit 99.1 of the Form 8-K filed with the SEC on November 30, 2017)

Exhibit Number	Description
10.20**	Offer Letter for Mark D. Thompson, dated September 17, 2017 (incorporated by reference to Exhibit 10.18 of the Form 10-K filed with the SEC on March 21, 2018)
10.21**	Offer Letter for Jennifer A. Pline, dated November 7, 2016 (incorporated by reference to Exhibit 10.19 of the Form 10-K filed with the SEC on March 21, 2018)
10.22**	Cambridge Trust Company Supplemental Executive Retirement Agreement for Jennifer A. Pline, dated January 30, 2017
10.23**	Offer Letter for Daniel R. Morrison, dated December 5, 2018
10.24**	Offer Letter for Pamela A. Morrison, dated December 5, 2018
10.25**	Offer Letter for William D. Young, dated December 5, 2018
10.26**	Short-Term Incentive Plan, effective January 1, 2018 (incorporated by reference to Exhibit 10.20 of the Form 10-Q filed with the SEC on August 9, 2018)
10.27**	Long-Term Incentive Plan, effective January 1, 2018 (incorporated by reference to Exhibit 10.21 of the Form 10-Q filed with the SEC on August 9, 2018)
21*	Subsidiaries of the Registrant
23.1*	Consent of KPMG LLP
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.2*	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
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 Definition Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith.
** Management Compensatory plans or arrangements.

Item 16. Form 10-K Summary.

None.

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.

CAMBRIDGE BANCORP

March 18, 2019	By: /s/ Denis K. Sheahan Denis K. Sheahan Chairman, Chief Executive Officer
March 18, 2019	By: /s/ Michael F. Carotenuto Michael F. Carotenuto Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Name	Title	Date
/s/ Denis K. Sheahan Denis K. Sheahan	Chairman, Chief Executive Officer (Principal Executive Officer)	March 18, 2019
/s/ Michael F. Carotenuto Michael F. Carotenuto	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 18, 2019
/s/ Donald T. Briggs Donald T. Briggs	Director	March 18, 2019
/s/ Jeanette G. Clough Jeanette G. Clough	Director	March 18, 2019
/s/ Sarah G. Green Sarah G. Green	Director	March 18, 2019
/s/ Edward F. Jankowski Edward F. Jankowski	Director	March 18, 2019
/s/ Hambleton Lord Hambleton Lord	Director	March 18, 2019
/s/ Leon A. Palandjian Leon A. Palandjian	Director	March 18, 2019
/s/ Cathleen A. Schmidt Cathleen A. Schmidt	Director	March 18, 2019
/s/ R. Gregg Stone R. Gregg Stone	Director	March 18, 2019
/s/ Anne M. Thomas Anne M. Thomas	Director	March 18, 2019
/s/ Mark D. Thompson Mark D. Thompson	President and Director	March 18, 2019
/s/ David C. Warner David C. Warner	Director	March 18, 2019
/s/ Linda Whitlock Linda Whitlock	Director	March 18, 2019
/s/ Susan R. Windham-Bannister Susan R. Windham-Bannister	Director	March 18, 2019

[THIS PAGE INTENTIONALLY LEFT BLANK]

[THIS PAGE INTENTIONALLY LEFT BLANK]

[THIS PAGE INTENTIONALLY LEFT BLANK]

Cambridge Trust Directors and Officers

Directors

Donald T. Briggs
Executive Vice President,
Development Federal Realty Investment Trust

Jeanette G. Clough
President and Chief Executive Officer,
Mount Auburn Hospital

Sarah G. Green
Retired Chief Operating Officer,
Federal Reserve Bank of Richmond

Edward F. Jankowski
Retired Senior Vice President,
Residential Lending and Corporate Compliance
Rockland Trust Company

Hambleton Lord
Managing Director,
Launchpad Venture Group
Co-Founder, Seraf

Leon A. Palandjian
Managing Member,
Intercontinental Capital Management, LLC

Cathleen A. Schmidt
Executive Director & CEO,
McLane Middleton Professional Association

Denis K. Sheahan
Chairman, Chief Executive Officer,
Cambridge Bancorp and Cambridge Trust Company

R. Gregg Stone
Manager,
Kestrel Management, LLC

Anne M. Thomas
Retired Special Counsel,
City of Somerville

Mark D. Thompson
President,
Cambridge Bancorp and Cambridge Trust Company

David C. Warner
Lead Director,
Cambridge Bancorp and Cambridge Trust Company
Partner, J. M. Forbes & Co. LLP

Linda Whitlock
Retired President and Chief Executive Officer,
Boys & Girls Clubs of Boston
Founder and Principal,
The Whitlock Group

Susan R. Windham-Bannister, Ph.D.
Managing Partner,
Biomedical Innovation Advisors LLC
President & CEO,
Biomedical Growth Strategies LLC

Officers

Michael F. Carotenuto
Senior Vice President, Chief Financial Officer & Corporate Secretary

Martin B. Millane, Jr.
Executive Vice President, Chief Lending Officer

Kerri A. Mooney
Senior Vice President, Director of Private Banking Offices

Puneet Nevatia
Senior Vice President, Chief Information Officer

Jennifer A. Pline
Executive Vice President, Head of Wealth Management

Pilar Pueyo
Senior Vice President, Director of Human Resources

John J. Sullivan
Senior Vice President, Director of Personal Lending

Jennifer M. Willis
Senior Vice President, Chief Marketing Officer

Cambridge Bancorp Board of Directors

(Front row from left to right): David C. Warner, Jeanette G. Clough, Mark D. Thompson, Denis K. Sheahan, Anne M. Thomas, Sarah G. Green, (Back row from left to right): Leon A. Palandjian, Cathleen A. Schmidt, Hambleton Lord, Linda Whitlock, R. Gregg Stone, Donald T. Briggs, Susan R. Windham-Bannister, Edward F. Jankowski.

Corporate Headquarters

Harvard Square
1336 Massachusetts Avenue
Cambridge, MA 02138
617-876-5500

Private Banking Offices

Harvard Square
1336 Massachusetts Avenue
Cambridge, MA 02138
617-876-2790

Huron Village
353 Huron Avenue
Cambridge, MA 02138
617-661-1317

Kendall Sqaure
415 Main Street
Cambridge, MA 02142
617-441-0951

Porter Square
1720 Massachusetts Avenue
Cambridge, MA 02138
617-661-0398

Beacon Hill
65 Beacon Street
Boston, MA 02108
617-523-3551

South End
565 Tremont Street
Boston, MA 02118
617-236-2247

Belmont
361 Trapelo Road
Belmont, MA 02478
617-484-0892

Concord
75 Main Street
Concord, MA 01742
978-369-9909

Lexington
1690 Massachusetts Avenue
Lexington, MA 02420
781-863-0976

Weston
494 Boston Post Road
Weston, MA 02493
781-893-5500

Wealth Management Offices

Boston, MA
75 State Street, 18th Floor
Boston, MA 02109
617-876-5500

84 State Street, Suite 760
Boston, MA 02109
617-441-1412

Concord, NH
49 South Main Street, Suite 203
Concord, NH 03301
603-226-1212

Manchester, NH
1000 Elm Street, Suite 201
Manchester, NH 03101
603-657-9015

Portsmouth, NH
One Harbour Place, Suite 240
Portsmouth, NH 03801
603-373-6010