

2019

ANNUAL REPORT



 **PathFinder**
BANCORP, INC.

OUR PURPOSE

To be the Local Bank Our Community Trusts.

OUR VISION

LOCAL

We have proudly served Central New York for over 150 years. Like our customers, we live, work and play here. That fact not only allows us to know our customers better, but gives our customers access to decision makers right here in Central New York.

COMMUNITY

Our success is intertwined with the success of the communities we serve. For that reason, and because it is the right thing to do, we invest our resources, time, and talents in those communities.

TRUST

Because we want to serve our local communities for another 150 years, we must earn the trust of our customers every day. We do that by being ethical, capable, honest, reliable and responsive. We do not sell products and services to our customers. We listen, and inquire, to determine our customers' needs. Then, with the help of a team of trusted advisors, we develop a program of services and products to uniquely satisfy those needs.

	2019	2018	2017	2016	2015
YEAR END (in thousands except per share amounts)					
Total assets	\$ 1,093,807	\$ 933,115	\$ 881,257	\$ 749,034	\$ 623,254
Investment securities available-for-sale	111,134	177,664	171,138	141,955	98,942
Investment securities held-to-maturity	122,988	53,908	66,196	54,645	44,297
Loans receivable, net	772,782	612,964	573,705	485,900	424,732
Deposits	881,893	727,060	723,603	610,983	490,315
Borrowings and subordinated debt	108,253	133,628	88,947	73,972	56,291
Shareholders' equity	90,669	64,459	62,144	58,361	71,229
FOR THE YEAR (in thousands)					
Net interest income	\$ 28,230	\$ 25,766	\$ 23,123	\$ 20,289	\$ 18,767
Core noninterest income (a)	4,443	4,029	3,559	3,618	3,606
Net gains (losses) on sales and redemptions of investment securities	410	(244)	489	594	422
Net gains/(losses) on sales of loans and foreclosed real estate	64	50	37	(40)	34
Noninterest expense (b)	25,309	23,057	20,621	18,654	17,069
Regulatory assessments	421	492	473	345	408
Interest income	41,758	34,810	29,413	24,093	21,424
Interest expense	13,528	9,044	6,290	3,804	2,657
Provision for loan losses	1,966	1,497	1,769	953	1,349
Net income attributable to the Company	4,276	4,031	3,491	3,272	2,889
PER SHARE					
Net income (basic)	\$ 0.80	\$ 0.97	\$ 0.86	\$ 0.79	\$ 0.67
Net income (diluted)	\$ 0.80	\$ 0.94	\$ 0.83	\$ 0.78	\$ 0.66
Book value per common share	15.94	14.72	14.44	13.67	13.28
Tangible book value per common share (c)	14.95	13.65	13.34	12.55	12.19
Cash dividends declared	0.240	0.240	0.215	0.200	0.160
PERFORMANCE RATIOS					
Return on average assets	0.43 %	0.45 %	0.42 %	0.48 %	0.48 %
Return on average equity	5.34	6.33	5.69	5.35	4.08
Return on average tangible equity (c)	5.67	6.84	6.16	5.80	4.46
Return on average common equity	6.02	6.33	5.69	5.35	5.00
Average equity to average assets	7.97	7.09	7.47	8.97	11.76
Equity to total assets at end of period	8.27	6.88	7.01	7.73	11.36
Dividend payout ratio (e)	30.21	24.93	25.21	25.18	25.22
Net interest rate spread	2.73	2.85	2.83	3.03	3.21
Net interest margin	2.98	3.02	2.97	3.14	3.31
Average interest-earning assets to average interest-bearing liabilities	116.84	116.52	116.05	118.35	121.73
Noninterest income to average assets	0.49	0.43	0.50	0.60	0.67
Noninterest expense to average assets	2.56	2.62	2.57	2.79	2.90
Efficiency ratio (d)	78.75	79.04	79.13	79.90	78.22
ASSET QUALITY RATIOS					
Nonperforming loans as a percent of total loans	0.67 %	0.35 %	0.84 %	0.98 %	1.24 %
Nonperforming assets as a percent of total assets	0.49	0.36	0.61	0.72	0.94
Allowance for loan losses to loans receivable	1.11	1.18	1.23	1.27	1.33
Allowance for loan losses as a percent of nonperforming loans	165.25	340.13	145.61	129.85	107.30
REGULATORY CAPITAL RATIOS (Bank Only)					
Total Core Capital (to Risk-Weighted Assets)	12.28 %	13.69 %	13.97 %	14.79 %	16.22 %
Tier 1 Capital (to Risk-Weighted Assets)	11.16	12.49	12.72	13.54	14.95
Tier 1 Common Equity (to Risk-Weighted Assets)	11.16	12.49	12.72	13.54	14.95
Tier 1 Capital (to adjusted assets)	8.20	8.31	8.16	9.06	10.00
NUMBER OF					
Banking offices	11	11	10	9	9
Fulltime equivalent employees	157	160	140	133	124

- (a) Exclusive of net gains/(losses) on sales and redemptions of investment securities and net gains/(losses) on sales of loans and foreclosed real estate
- (b) Exclusive of regulatory assessments
- (c) Tangible equity excludes intangible assets
- (d) The efficiency ratio is calculated as noninterest expense divided by the sum of net interest income and noninterest income, excluding net gains/(losses) on sales and redemptions of investment securities and net gains/(losses) on sales of loans and foreclosed real estate.

LETTER TO SHAREHOLDERS

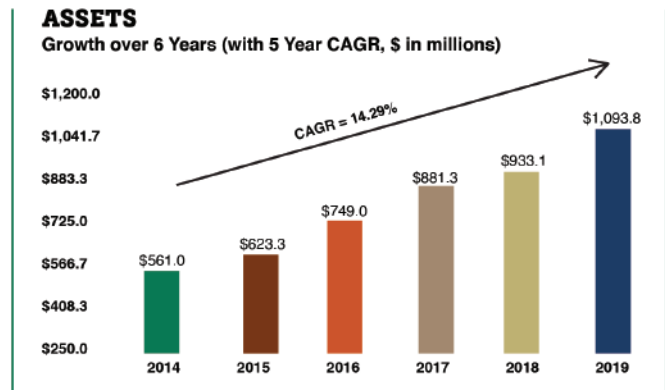
We are pleased to present our Annual Report to Shareholders for 2019, Pathfinder Bank's 160th anniversary of service to the communities of Central New York State. Our roots go deep in our Oswego County origins, and more recently, those same roots have reached out to new markets within the Central New York region, particularly in the Greater Syracuse market and the Mohawk Valley. Demand exists for a local community bank that makes differential decisions based upon deep community engagement and real-time local knowledge, with quality customer service and a full range of financial products, and we continue to meet that demand in the communities we serve. The steps we are taking to expand our service area, grow our customer base and to increase the breadth and sophistication of our product and service offerings, have put Pathfinder Bank on the right trajectory to realize the benefits of increased scale, a stronger balance sheet and, ultimately, to improve bottom-line performance.

SOLID 2019 PERFORMANCE RESULTING FROM A SIGNIFICANTLY STRONGER SECOND HALF

Performance continued to track solidly in 2019 despite some challenging operating headwinds that meaningfully reduced earnings during the first half of the year, that we then aggressively addressed moving into the second half of the year. As the year progressed, our team's hard work ultimately resulted in record total revenue of \$33.1 million for the full year, an increase of 12.0% compared to 2018. Total loans at year-end increased by \$161.2 million, a result of both organic and acquired growth, while asset quality metrics remained stable and favorable, with net charge-offs making up just 0.09% of average loans for the year. Total deposits were also up significantly in 2019, increasing by \$154.8 million, or 21.3%, from the end of 2018. However, our focus on deposits is now on further growing deposits absent reliance on higher-cost time deposits.

Net income was \$4.3 million in 2019, compared to \$4.0 million for the previous year. However, as a result of the structure of our capital raise discussed later, net income attributable to common shareholders was \$3.6 million. Profitability in the first half of 2019 was impacted in part by added costs associated with the launch of our newest branch in Clay, NY, which opened late in the fourth quarter of 2018. In addition, we experienced net interest margin compression that was a result of the short-term interest rate increases orchestrated by the Federal Reserve during the second half of 2018, which significantly increased our deposit costs. Importantly, our earnings performance was markedly improved in the second half of 2019, as we productively deployed the new equity capital that was raised in May 2019. As this deployment of capital was happening, the Federal Reserve initiated a series of short term interest rate reductions that positively impacted our

funding costs and, in turn, our net interest margin, which trended up markedly in the third and fourth quarters. The combination of higher service fee income in the back half of 2019 and a significant reduction in the rate of growth of noninterest expense also contributed to a stronger bottom-line performance during the last six months of 2019.



Our continued growth trajectory in 2019 elevated total assets to more than \$1 billion for the first time in the Bank's history. It took 154 years to grow the Bank's assets to \$500 million, but it only took another six years to more than double our size, reflecting the success of our growth initiatives. We believe that our increased scale will contribute to a more efficient operating profile, which should benefit our bottom-line performance going forward. Additionally, cresting the \$1 billion asset threshold serves to elevate our profile with a larger group of potential investors, the cultivation of which is another important objective we have for 2020 and beyond. While we are not seeking new equity capital at this time, we do believe that a larger pool of interested investors can only be beneficial to our existing shareholders.

CURRENT MARKET UNCERTAINTY AND VOLATILITY

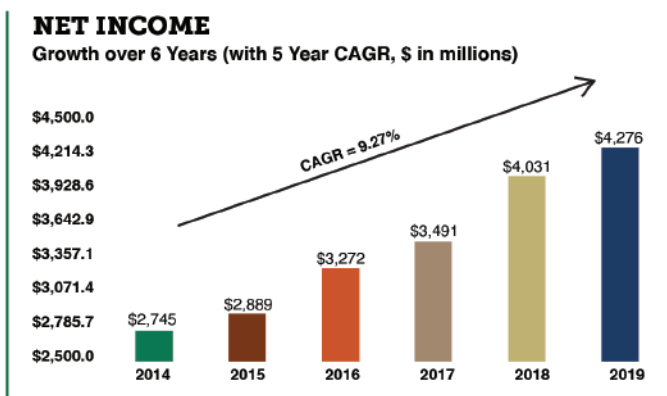
At the time of this writing, global economies and markets are extremely volatile due to the uncertain impacts correlated to the COVID-19 spread. In particular, the high demand for US Treasuries has brought longer-term interest rate yields to unprecedented lows. We are being thoughtful, strategic, and tactical in an on-going evaluation of:

1. Our business continuity planning.
2. Our balance sheet structure and pricing.
3. Interest rate and liquidity risks.
4. The potential impacts of economic slowdown on our credit portfolios, and,
5. Communication with Employees and Customers.

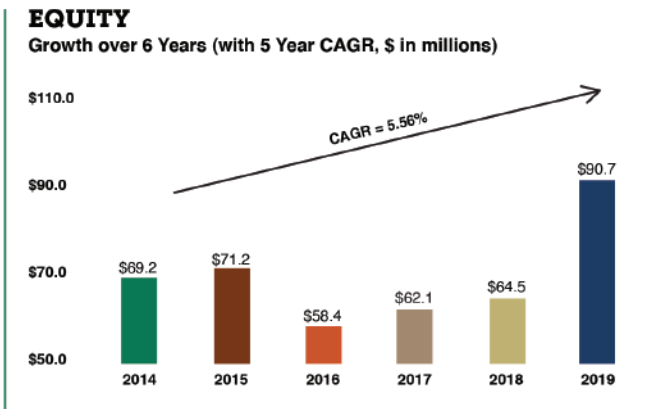
Periods of uncertainty demand vigilance, adaptability, and realism absent panicked decision making. On a daily basis, we are thoughtfully managing to short and longer-term impacts of this uncertainty and volatility.

A STRONGER BALANCE SHEET BOLSTERED BY GROWTH IN 2019

In the second quarter of 2019, we successfully completed a private placement of new equity capital with net proceeds of approximately \$19.6 million. This new capital was put to work in the months following the capital raise, which had a positive

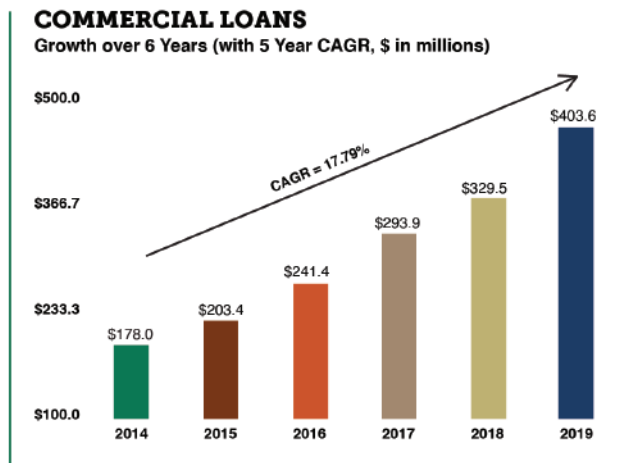
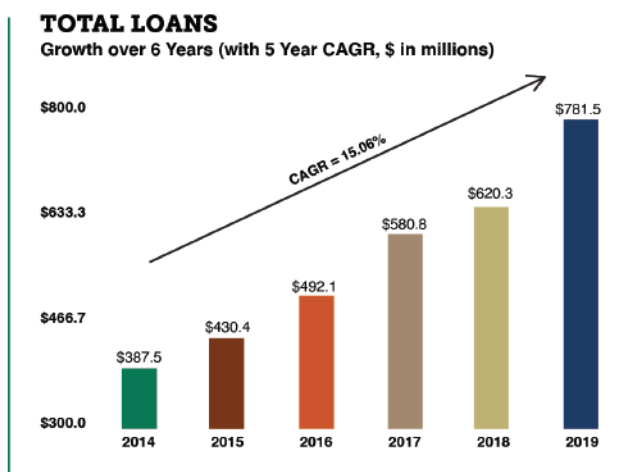


impact on our performance by enabling the Bank to significantly grow interest-earning assets through year-end. For the year, we increased interest-earning assets by \$157.9 million, or 18.0%, from the end of 2018. The capital raise involved the sale of common stock, convertible perpetual preferred stock and a warrant to purchase an additional 125,000 shares of common stock in the future, to local investors and a California-based private equity firm, which is a leading investor in the community banking sector. The local investors included members of your Board of Directors and executive management team, as well as additional accredited individual investors. This transaction immediately strengthened our balance sheet, improved our regulatory capital ratios, and enabled us to respond to attractive growth opportunities through year-end.

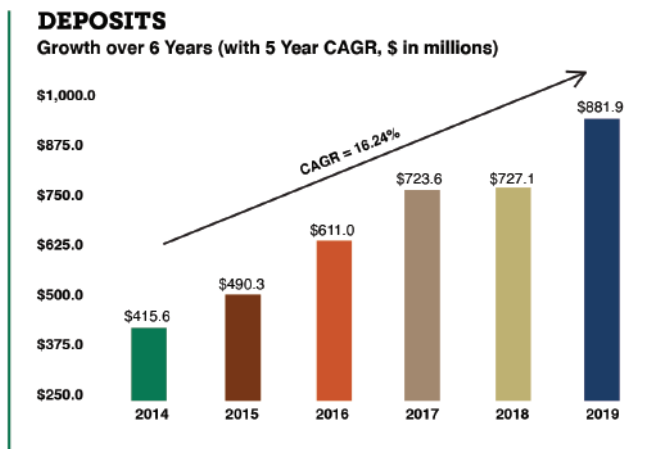


FINE TUNING OUR BUSINESS MODEL

Pathfinder Bank has historically maintained a strong presence in consumer deposit gathering and residential mortgage lending within our market area. This approach to business has served our customers and the Bank well for 160 years. While retail banking remains an important part of our business, in recent years, we have significantly elevated our focus on commercial and business banking to drive stronger growth and increased profitability. We have carved out a solid commercial banking franchise by offering products that are attractive to small- and medium-sized businesses, and by differentiating our commercial lending through customer service, solution flexibility, differentiated local decision making, and convenience. We assembled a strong team that is experienced in originating, underwriting, and servicing commercial real estate and commercial business loans. As a result, we have significantly increased our commercial lending portfolios while maintaining strong asset quality metrics, which reflect our consistent and sound underwriting practices.



Efficiently funding this loan growth has become increasingly important as we have elevated our position as a commercial lender within our market area. In the second half of 2019, we implemented core strategies designed to enhance our deposit mix by focusing our deposit gathering activities on non-maturity deposits from both retail and business customers. We are working to accomplish this through employee training, modifications to our incentive programs, and by enhancing our customer-facing technologies, as well as a team focused solely on business deposit conversion to our platforms. This will remain a significant organizational focus going forward as we work to reduce our current reliance on borrowed funds and time deposits to fund loan growth. We will be converting to a new digital banking platform in August 2020, which will provide more convenience for our retail sector, but more importantly, provide a more robust Treasury Management platform for our commercial business deposits.



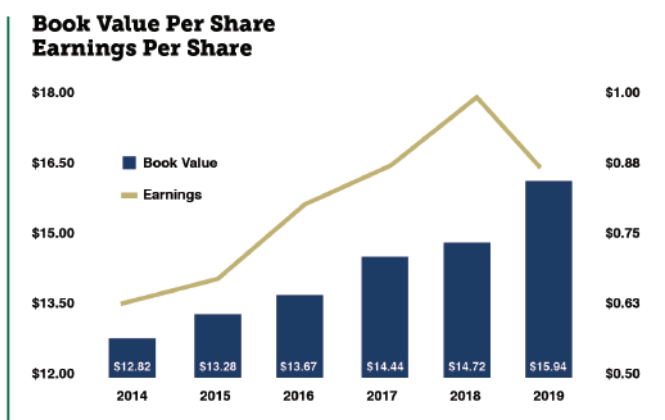
We are also taking steps to reduce dependence on net interest income by enhancing our fee-based income from loan and deposit products, as well as from other financial services such as the sale of insurance products and the offering of personal investment services. In the second half of 2019, we instituted a program to better understand and monitor the competitive environment for loan and deposit service fees and to improve the profitability of a significant number of customer relationships. We believe that this knowledge will result in improved product design and better customer relationship management, and enable us to increase service fee income by properly charging for the value we provide, consistent with competitive rates. We currently offer property and casualty and life insurance through Pathfinder Risk Management and brokerage services through Pathfinder Investment Services,

and we also see opportunities to continue to gradually grow these businesses in our expanding market footprint.

As discussed above, we have more than doubled the size of the Company during the last five years. With a rate of growth that rapid, it was necessary to continuously invest – often ahead of the expected growth in revenues - in creating the infrastructure and staff capabilities necessary to support an institution with over \$1 billion in total assets. We believe that the infrastructure that we have built remains appropriately sized to handle the additional expansion we are targeting during the next three years. This being the case, we expect that the rate of operating expense growth will slow in comparison to recent periods. This will remain an important focus as we work to get more operating leverage from further expected revenue increases.

AN UPWARD TRAJECTORY

While the annual report typically reviews a company’s performance for the year, a more important purpose is to identify potential opportunities or challenges in the coming months, as well as provide a clear vision of the company’s direction. Shareholders are holding a stake in where the company is going, much more so than where it has been. We had a strong second half of 2019, and we are solidly positioned for further earnings growth in 2020. We are convinced that Pathfinder Bank is on an upward trajectory and that we have a strategic framework in place that will keep the Company ascending in service to our customers and value to our owners.



With the recent extreme volatility in the equity markets, we are most pleased to have accomplished our most significant strategic goal in 2019 – the successful completion of our capital raise. We are excited by our prospects as we begin 2020, where we anticipate further building on our already-strong capital base through increased retained earnings.

Once again, it is important to note that, despite significant loan growth in 2019, our asset quality metrics were strong throughout the year and remained so at year-end. Our consistent, safe, and sound underwriting practices will remain firmly in place as we continue to compete for commercial lending relationships within our market. Perhaps as significant, we have a clear commitment to developing an improved deposit mix that will provide better control over funding costs in a broader range of interest rate environments and a stronger net interest margin over time. At the same time, the increase in commercial banking relationships will provide increased recurring sources of noninterest income, along with access to lower-cost transactional deposits. We are highly cognizant of the uncertainties noted above relative to COVID-19,

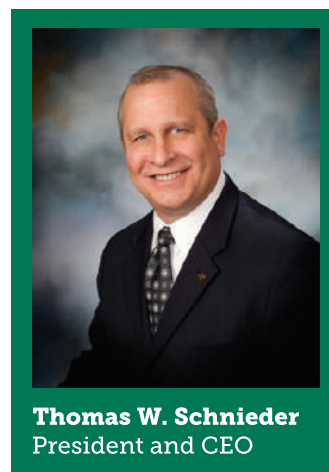
and they may significantly impact our ability to achieve our strategic objectives designed to build value.

We have made a significant investment in building a banking platform to handle recent growth, as well as targeted future growth. During 2020, we plan to continue making upgrades, with a new digital banking platform that will improve our internet, mobile, and, significantly, our treasury management capabilities for businesses. During the fourth quarter, we expect to open a new branch in the Southwest Corridor of the City of Syracuse to serve our growing customer base in this market, as well as to provide community banking to an underserved neighborhood within the City of Syracuse, and the rest of Onondaga County, we remain focused on our organic growth initiatives in the foreseeable future.

We will continue to explore opportunities to expand our market reach through a combination of de novo branching and potential acquisitions of existing branches and/or other financial service entities. We finished 2019 with a strong capital position that will enable us to explore and evaluate opportunities that we believe will strengthen our franchise and build shareholder value. Given that, we believe organic growth in our stable, yet ascending market, provides value and any acquisition analysis would need to be strategically aligned and short-term accretive

The concept of sustainability is rising in importance for investment professionals, as more investment funds are making environmental, social, and governance (ESG) factors a significant consideration that informs their investment decisions. Also, recent surveys of individual investors show a growing interest in investing for positive social impact. While our industry was not as quick as some to respond to the need for more transparency on sustainability practices, this is starting to change with banks of all sizes. Along with our plan to elevate our interaction with the investment community in 2020, we plan to make sustainability part of the communication effort to ensure that Pathfinder Bank remains attractive to this important segment of the investment community.

We begin the year in a substantially stronger financial and operating position than at the same time last year. Given our recent earnings momentum, as well as the identified opportunities to further enhance earnings and franchise value in the near term, we have high expectations for 2020 and beyond. We appreciate your continued ownership investment and support, and we look forward to updating you on our progress throughout the year.



Chris Burritt

Thomas W. Schnieder

2019

FINANCIAL REVIEW



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

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

For the Fiscal Year Ended December 31, 2019

OR

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

For the transition period from _____ to _____
Commission File No. 001-36695

PATHFINDER BANCORP, INC.

(Exact name of registrant as specified in its charter)

Maryland
(State or other jurisdiction of
incorporation or organization)

38-3941859
(I.R.S. Employer
Identification No.)

214 West First Street
Oswego, NY 13126

(Address of principal executive offices) (Zip code)

Registrant's telephone number, including area code (315) 343-0057

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$0.01 par value	PBHC	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None

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 Section 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 such files). Yes No

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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 Act). Yes No

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant, computed by reference to the last sale price on June 30, 2019, as reported by the NASDAQ Capital Market (\$14.55), was approximately \$51.3 million.

As of March 20, 2020, there were 4,740,446 shares outstanding of the Registrant's common stock.

DOCUMENTS INCORPORATED BY REFERENCE:

Proxy Statement for the 2020 Annual Meeting of Shareholders of the Registrant (Part III).

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DECEMBER 31, 2019
PATHFINDER BANCORP, INC.

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PART I

FORWARD-LOOKING STATEMENTS

When used in this Annual Report the words or phrases “will likely result”, “are expected to”, “will continue”, “is anticipated”, “estimate”, “project” or similar expressions are intended to identify “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements are subject to certain risks and uncertainties. Actual results and financial condition may differ, possibly materially, from the anticipated results and financial condition indicated in these forward-looking statements. Important factors that could cause the Company’s actual results and financial condition to differ from those indicated in the forward-looking statements include, among others:

- Credit quality and the effect of credit quality on the adequacy of our allowance for loan losses;
- Deterioration in financial markets that may result in impairment charges relating to our securities portfolio;
- Competition in our primary market areas;
- Changes in interest rates and national or regional economic conditions;
- Changes in monetary and fiscal policies of the U.S. Government, including policies of the U.S. Treasury and the Federal Reserve Board;
- Significant government regulations, legislation and potential changes thereto;
- A reduction in our ability to generate or originate revenue-producing assets as a result of compliance with heightened capital standards;
- Increased cost of operations due to regulatory oversight, supervision and examination of banks and bank holding companies, and higher deposit insurance premiums;
- Cyberattacks, computer viruses and other technological threats that may breach the security of our websites or other systems;
- Technological changes that may be more difficult or expensive than expected;
- Limitations on our ability to expand consumer product and service offerings due to consumer protection laws and regulations; and
- Other risks described herein and in the other reports and statements we file with the SEC.

The outbreak of Coronavirus Disease 2019 (“COVID-19”) could adversely impact a broad range of industries in which the Company’s customers operate and impair their ability to fulfill their financial obligations to the Company. The World Health Organization has declared Covid-19 to be a global pandemic indicating that almost all public commerce and related business activities must be, to varying degrees, curtailed with the goal of decreasing the rate of new infections.

The spread of the outbreak will likely cause significant disruptions in the U.S. economy and is highly likely to disrupt banking and other financial activity in the areas in which the Company operates and could also potentially create widespread business continuity issues for the Company. The Company’s business is dependent upon the willingness and ability of its employees and customers to conduct banking and other financial transactions. If the global response to contain COVID-19 escalates or is unsuccessful, the Company could experience a material adverse effect on its business, financial condition, results of operations and cash flows.

These risks and uncertainties should be considered in evaluating forward-looking statements and undue reliance should not be placed on such statements. Undue reliance should not be placed on any such forward-looking statements, which speak only as of the date made. The factors listed above could affect the Company’s financial performance and could cause the Company’s actual results for future periods to differ materially from any opinions or statements expressed with respect to future periods in any current statements. Additionally, all statements in this document, including forward-looking statements, speak only as of the date they are made, and the Company undertakes no obligation to update any statement in light of new information or future events.

ITEM 1: BUSINESS

GENERAL

Pathfinder Bancorp, Inc.

Pathfinder Bancorp, Inc. (the "Company") is a Maryland corporation headquartered in Oswego, New York. The primary business of the Company is its investment in Pathfinder Bank (the "Bank") which is 100% owned by the Company. The Company is subject to supervision and regulation by the Board of Governors of the Federal Reserve System (the "Federal Reserve Board"). Pathfinder Bank is a commercial bank chartered by the New York State Department of Financial Services (the "NYSDFS").

The Company owns a non-consolidated Delaware statutory trust subsidiary, Pathfinder Statutory Trust II, of which 100% of the common equity is owned by the Company. Pathfinder Statutory Trust II was formed in connection with the issuance of \$5.2 million in trust preferred securities.

At December 31, 2019 and 2018, 4,709,238 and 4,362,328 shares of Company common stock were outstanding, respectively. In addition, the Company had 1,155,283 shares of Series B convertible perpetual preferred stock outstanding at December 31, 2019. There was no convertible perpetual preferred stock outstanding at December 31, 2018.

At December 31, 2019, the Company had total consolidated assets of \$1.1 billion, total deposits of \$881.9 million and shareholders' equity of \$90.4 million plus a noncontrolling interest of \$235,000, which represents the 49% of the FitzGibbons Agency, LLC not owned by the Company.

The Company's executive office is located at 214 West First Street, Oswego, New York and the telephone number at that address is (315) 343-0057. Its internet address is www.pathfinderbank.com. Information on our website is not and should not be considered to be a part of this report.

Pathfinder Bank

The Bank is a New York-chartered commercial bank and its deposit accounts are insured up to applicable limits by the Federal Deposit Insurance Corporation ("FDIC") through the Deposit Insurance Fund ("DIF"). The Bank is subject to extensive regulation by the NYSDFS, as its chartering agency, and by the FDIC, as its deposit insurer and primary federal regulator. The Bank is a member of the Federal Home Loan Bank of New York ("FHLBNY") and is also subject to certain regulations by the Federal Home Loan Bank System.

The Bank is primarily engaged in the business of attracting deposits from the general public in the Bank's market area, and investing such deposits, together with other sources of funds, in loans secured by residential and commercial real estate, and commercial business and consumer assets other than real estate. In addition, the Bank originates unsecured small business and consumer loans. The Bank also invests a portion of its assets in a broad range of debt securities issued by the United States Government and its agencies and sponsored enterprises, state and municipal governments and agencies, and corporations. The Company also invests in mortgage-backed securities issued or guaranteed by United States Government sponsored enterprises, collateralized mortgage obligations and similar debt securities issued by both government sponsored entities and private (non-governmental) issuers, and asset-backed securities that are generally issued by private entities. The Company invests primarily in debt securities but will, within certain regulatory limits, invest from time to time in mutual funds and equity securities. The Bank's principal sources of funds are deposits, principal and interest payments on loans and investments, as well as borrowings from correspondent financial institutions. The principal source of the Company's income is interest on loans and investment securities. The Bank's principal expenses are interest paid on deposits and borrowed funds, employee compensation and benefits, data processing and facilities.

The Bank also owns 100% of Whispering Oaks Development Corp. ("Whispering Oaks"), a New York corporation that is retained to operate or develop real estate-related projects. At December 31, 2019, Whispering Oaks operated a small tenant-occupied commercial building that houses an ATM facility for the Bank, and, through a wholly-owned second-tier subsidiary, is the sole limited partner in an unconsolidated special-purpose real estate management partnership. The partnership currently operates a low-income residential housing facility. The activities of Whispering Oaks resulted in a pre-tax loss of \$37,000 in 2019.

Additionally, the Bank owns 100% of Pathfinder Risk Management Company, Inc., which was established to record the 51% controlling interest upon the December 2013 purchase of the FitzGibbons Agency, an Oswego County property, casualty and life insurance brokerage business with approximately \$840,000 in annual revenues. The activities of Pathfinder Risk Management Company, Inc. resulted in pre-tax income of \$20,000 in 2019. The Company's 51% controlling interest in this entity resulted in income of \$10,000 for the Company on a consolidated basis in 2019.

Employees

As of December 31, 2019, the Bank had 151 full-time employees and 12 part-time employees. The employees are not represented by a collective bargaining unit and we consider our relationship with our employees to be good.

MARKET AREA AND COMPETITION

Market Area

We provide financial services to individuals, families, small to mid-size businesses and municipalities through our seven branch offices located in Oswego County, NY, three branch offices located in Onondaga County, NY and one limited purpose office located in Oneida County, NY. Our primary lending market area includes both Oswego and Onondaga Counties. However, our primary deposit generating area is concentrated in Oswego County and in the areas surrounding our Onondaga County branches.

The economies of Oswego County and Onondaga County are based primarily on manufacturing, energy production, health care, education, and government. In addition to financial services, the broader Central New York market has a more diverse array of economic sectors, including food processing production and transportation. The region has more recently also developed particular strength in the commercialization of certain emerging technologies such as bio-processing, medical devices, aircraft systems and renewable energy.

Based on recent independent market survey reports, median home values were \$151,400 in Onondaga County and \$116,500 in Oswego County at the end of 2019. Home values have shown only modest increases in recent years within the Syracuse, NY metro area, including Onondaga and Oswego Counties. This modest increase in home values within the area followed a period in which home values within the area exhibited relative stability compared to many other areas of the country during the most recent economic recession that began in 2008.

Competition

Pathfinder Bank encounters strong competition both in attracting deposits and in originating real estate and other loans. Our most direct competition for deposits and loans comes from commercial banks, savings institutions and credit unions in our market area, including money-center banks such as JPMorgan Chase & Co. and Bank of America, regional banks such as M&T Bank and Key Bank N. A., and community banks such as NBT Bank and Community Bank N.A., all of which have substantially greater total assets than we do. Local credit unions, some of which also have more assets than the Company, are particularly strong competitors for consumer deposits and consumer loans. In addition, potential new competitors may be emerging that are generically defined as financial technology (also referred to as “FinTech” or “fintech”) companies. These entities seek to employ new technology and various forms of innovation in order to compete with traditional methods of delivering financial services. The advanced use of smartphones for mobile banking, automated investing services and cryptocurrency are examples of such technologies. Financial technology companies consist of both well-capitalized startup entities, divisions of established financial institutions and/or established technology companies. These entities seek to replace or supplement the financial services provided by established financial service entities, such as the Company. Many established financial institutions are now implementing, or planning to implement, various forms of fintech solutions and technologies in order to broaden their product and service offerings and/or to gain improved competitive positions in this emerging marketplace. Some of these technologies either have been implemented to varying degrees by the Bank, or will be available to the Bank for future implementation through its network of service providers and computer system vendors. It cannot be predicted with certainty at this time how effective these new competitors will be in our marketplace or what costs the Company will incur in the future to implement and maintain competitive technologies.

Our primary focus is to build and develop profitable consumer and commercial customer relationships while maintaining our role as a community bank. We compete for deposits by offering depositors a high level of personal service, a wide range of competitively-priced financial services, and a well distributed network of branches, ATMs, and electronic banking. We compete for loans through our competitive pricing, our experienced and active loan officers, local knowledge of our market and local decision making, strong community support and involvement, and a highly reputable brand. As the economy has improved in recent years, and loan demand has increased, competition from financial institutions for commercial and residential loans has also increased. Additionally, some of our competitors offer products and services that we do not offer, such as trust services and private banking.

As of June 30, 2019, based on the most recently-available FDIC data, we had the largest market share in Oswego County, representing 46.2% of all deposits, and we additionally held 1.8% of all deposits in Onondaga County. In addition, when combining both Oswego and Onondaga Counties, we have the fifth largest market share of sixteen institutions, representing 6.9% of the total market.

LENDING ACTIVITIES

General

Our primary lending activity is originating commercial real estate and commercial loans, the vast majority of which have periodically adjustable rates of interest, and one-to-four family residential real estate loans, the majority of which have fixed rates of interest. Our loan portfolio also includes municipal loans, home equity loans and lines and consumer loans. In order to diversify our loan portfolio, increase our revenues, and make our loan portfolio less interest rate sensitive, the Company has actively sought to increase its commercial real estate and commercial business lending activities, consistent with safe and sound underwriting practices. Accordingly, we offer adjustable-rate commercial mortgage loans, short-and medium-term mortgage loans, and floating rate commercial loans and lines of credit.

Commercial Real Estate Loans

Over the past several years, we have focused on originating commercial real estate loans, and we believe that commercial real estate loans will continue to provide growth opportunities for us. We expect to increase, subject to our underwriting standards and market conditions, this business line in the future with a target loan size of \$500,000 to \$2.0 million to small businesses and real estate projects in our market area. Commercial real estate loans are secured by properties such as multi-family residential, office, retail, warehouse and owner-occupied commercial properties.

Our commercial real estate underwriting policies provide that such real estate loans are typically made in amounts up to 80% of the appraised value of the property. Commercial real estate loans are offered with interest rates that are generally fixed for up to three or five years then are adjustable based on the FHLBNY advance rate. Contractual maturities generally do not exceed 20 years. In reaching a decision whether to make a commercial real estate loan, we consider market conditions, operating trends, net cash flows of the property, the borrower's expertise and credit history, and the appraised value of the underlying property. We will also consider the terms and conditions of the leases and the stability of the tenant base. We generally require that the properties securing these real estate loans have debt service coverage ratios (the ratio of earnings before interest, taxes, depreciation and amortization divided by interest expense and current maturities of long term debt) of at least 120%. Environmental due diligence is generally conducted for commercial real estate loans. Typically, commercial real estate loans made to corporations, partnerships and other business entities require personal guarantees by the owners of 20% or more of the borrowing entity.

A commercial real estate borrower's financial condition is monitored on an ongoing basis by requiring current financial statements, rent rolls, payment history reviews, property inspections and periodic face-to-face meetings with the borrower. We generally require borrowers with aggregate outstanding balances exceeding \$100,000 to provide annual updated financial statements and/or federal tax returns. These requirements also apply to all guarantors on these loans.

Loans secured by commercial real estate generally have greater credit risk than one-to-four family residential real estate loans. The increased credit risk associated with commercial real estate loans is a result of several factors, including larger loan balances concentrated with a limited number of borrowers, the impact of local and general economic conditions on the borrower's ability to repay the loan. Furthermore, the repayment of loans secured by commercial real estate properties typically depends upon the successful operation of the real property securing the loan. If the cash flows from the property are reduced, the borrower's ability to repay the loan may be impaired. However, commercial real estate loans generally have higher interest rates than loans secured by one-to-four family residential real estate.

Commercial Loans

We typically originate commercial loans, including commercial term loans and commercial lines of credit, on the basis of a borrower's ability to make repayment from the cash flows of the borrower's business, conversion of current assets in the normal course of business (for seasonal working capital lines), the industry and market in which they operate, experience and stability of the borrower's management team, earnings projections and the underlying assumptions, and the value and marketability of any collateral securing the loan. As a result, the availability of funds for the repayment of commercial loans and commercial lines of credit is substantially dependent on the success of the business itself and the general economic environment in our market area. Therefore, commercial loans and commercial lines of credit that we originate have greater credit risk than one-to-four family residential real estate loans.

Commercial term loans are typically secured by equipment, furniture and fixtures, inventory, accounts receivable or other business assets, or, in some circumstances, such loans may be unsecured. From time to time, we also originate commercial loans that are guaranteed by the United States Small Business Administration ("SBA") or United States Department of Agriculture ("USDA") loan programs. Over the past several years, we have focused on increasing our commercial lending and our business strategy is to continue to increase our originations of commercial loans to small businesses in our market area, subject to our underwriting standards and market conditions. Our commercial loans are generally comprised of adjustable-rate loans, indexed to the prime rate, with terms

consisting of three to seven years, depending on the needs of the borrower and the useful life of the underlying collateral. We make commercial loans to businesses operating in our market area for purchasing equipment, property improvements, business expansion or working capital. If a commercial loan is secured by equipment, the maturity of a term loan will depend on the useful life of the equipment purchased, the source of repayment for the loan and the purpose of the loan. We generally obtain personal guarantees on our commercial loans.

Our commercial lines of credit are typically adjustable rate lines, indexed to the prime interest rate. Generally, our commercial lines of credit are secured by business assets or other collateral, and generally payable on-demand pursuant to an annual review. Since the commercial lines of credit may expire without being drawn upon, the total committed amounts do not necessarily represent future cash requirements.

Residential Real Estate Loans

Historically, our primary lending focus consisted of originating one-to-four family, owner-occupied residential mortgage loans, substantially all of which were secured by properties located in our market area. As noted above, we have shifted our lending focus in recent years towards originating more commercial real estate and commercial loans.

We currently offer one-to-four family residential real estate loans with terms up to 30 years that are generally underwritten according to Federal National Mortgage Association (“Fannie Mae”) guidelines, and we refer to loans that conform to such guidelines as “conforming loans.” We generally originate both fixed-rate and adjustable-rate mortgage loans in amounts up to the maximum conforming loan limits as established by the Federal Housing Finance Agency, which as of December 31, 2019, was generally \$484,350 for single-family homes in our market area.

Although conforming loans are generally saleable at management’s discretion, we generally hold our one-to-four family residential real estate loans in our portfolio but have the capability to sell the mortgages into the secondary market, at management’s discretion, as a source of liquidity or as a means of managing interest-rate risk. Such loan sales were conducted on a limited basis in 2019 and 2018. A significant portion of our loan portfolio consists of fixed-rate one-to-four family residential real estate loans with terms in excess of 15 years. We also originate one-to-four family residential real estate loans secured by non-owner occupied properties. However, we generally do not make loans in excess of 80% loan-to-value on non-owner occupied properties.

For most owner-occupied one-to-four family residential real estate loans with loan-to-value ratios of between 80% and 95%, we require the borrower to obtain private mortgage insurance (“PMI”). Our lending policies limit the maximum loan-to-value ratio on both fixed-rate and adjustable-rate owner-occupied mortgage loans to 80% of the appraised value of the collateralized property, with the exception of a limited use product which allows for loans up to 90% with no PMI. For first mortgage loan products, we require the borrower to obtain title insurance. We also require homeowners’ insurance, fire and casualty, and, if necessary, flood insurance on properties securing real estate loans. We do not, and have never offered or invested in, one-to-four family residential real estate loans specifically designed for borrowers with sub-prime credit scores, including interest-only, negative amortization or payment option adjustable-rate mortgage loans.

Our fixed-rate one-to-four family residential real estate loans include loans that generally amortize on a monthly basis over periods between 10 to 30 years. Fixed-rate one-to-four family residential real estate loans often remain outstanding for significantly shorter periods than their contractual terms because borrowers have the right to refinance or prepay their loans.

Our adjustable-rate one-to-four family residential real estate loans generally consist of loans with initial interest rates fixed for one, three, or five years, and annual adjustments thereafter are indexed based on changes in the one-year United States Treasury bill constant maturity rate. Our adjustable-rate mortgage loans generally have an interest rate adjustment limit of 200 basis points per adjustment, with a maximum lifetime interest rate adjustment limit of 600 basis points. In the current low interest rate environment, we have not originated a significant amount of adjustable-rate mortgage loans. Although adjustable-rate one-to-four family residential real estate loans may reduce, to an extent, our vulnerability to changes in market interest rates because they periodically re-price, as interest rates increase the required payments due from a borrower also increase (subject to rate caps), thereby increasing the potential for default by the borrower. At the same time, the ability of the borrower to repay the loan and the marketability of the underlying collateral may be adversely affected by higher interest rates. Upward adjustments of the contractual interest rate are also limited by our maximum periodic and lifetime rate adjustments.

Residential Construction Loans

Our one-to-four family residential real estate loan portfolio also includes residential constructions loans. Our residential construction loans generally have initial terms of up to six months, subject to extension, during which the borrower pays interest only. Upon

completion of construction, these loans typically convert to permanent loans secured by the completed residential real estate. Our construction loans generally have rates and terms comparable to residential real estate loans that we originate.

Tax-exempt Loans

We make loans to local governments and municipalities for either tax anticipation or for small expenditure projects, including equipment acquisitions and construction projects. Our municipal loans are generally fixed for a term of one year or less, and are generally unsecured. Interest earned on municipal loans is tax exempt for federal tax purposes, which enhances the overall yield on each loan. Generally, the municipality will have a deposit relationship with us along with the lending relationship.

We also make tax-exempt loans to commercial borrowers based on obligations issued by a state or local authority to provide economic development such as the state dormitory authority.

Home Equity Loans and Junior Liens

Home equity loans and junior liens are made up of lines of credit secured by owner-occupied and non-owner occupied one-to-four family residences and second and third real estate mortgage loans. Home equity loans and home equity lines of credit are generally underwritten using the same criteria that we use to underwrite one-to-four family residential mortgage loans. We typically originate home equity loans and home equity lines of credit on the basis of the applicant's credit history, an assessment of the applicant's ability to meet existing obligations and payments on the proposed loan, and the value of the collateral securing the loan. Home equity loans are offered with fixed interest rates. Lines of credit are offered with adjustable rates, which are indexed to the prime rate, and with a draw period of up to 10 years and a payback period of up to 20 years. The loan-to-value ratio for our home equity loans is generally limited to 80% when combined with the first security lien, if applicable. The loan to value of our home equity lines of credit is generally limited to 80%, unless the Bank holds the first mortgage. If we hold the first mortgage, we will permit a loan to value of up to 90%, and we adjust the interest rate and underwriting standards to compensate for the additional risk.

For all first lien position mortgage loans, we use outside independent appraisers. For second position mortgage loans where we also hold the existing first mortgage, we will use the lesser of the existing appraisal amount used in underwriting the first mortgage or assessed value. For all other second mortgage loans, we will use a third-party service which gathers all data from real property tax offices and gives the property a low, middle and high value, together with similar properties for comparison. The middle value from the third-party service will be the value used in underwriting the loan. If the valuation method for the loan amount requested does not provide a value, or the value is not sufficient to support the loan request and it is determined that the borrower(s) are credit worthy, a full appraisal may be ordered.

Home equity loans and junior liens secured by junior mortgages have greater risk than one-to-four family residential mortgage loans secured by first mortgages. We face the risk that the collateral will be insufficient to compensate us for loan losses and costs of foreclosure, after repayment of the senior mortgages, if applicable. When customers default on their loans, we attempt to work out the relationship in order to avoid foreclosure because the value of the collateral may not be sufficient to compensate us for the amount of the unpaid loan and we may be unsuccessful in recovering the remaining balance from those customers. Moreover, decreases in real estate values could adversely affect our ability to fully recover the loan balance in the event of a default.

Consumer Loans

We are authorized to make loans for a variety of personal and consumer purposes and our consumer loan portfolio consists primarily of automobile, recreational vehicles and unsecured personal loans, as well as unsecured lines of credit and loans secured by deposit accounts. Our procedure for underwriting consumer loans includes an assessment of the applicant's credit history and ability to meet existing obligations and payments for the proposed loan, as well as an evaluation of the value of the collateral security, if any.

Consumer loans generally entail greater credit-related risk than one-to-four family residential mortgage loans, particularly in the case of loans that are unsecured or are secured by assets that tend to depreciate in value, such as automobiles. As a result, consumer loan collections are primarily dependent on the borrower's continuing financial stability and thus are more likely to be adversely affected by job loss, divorce, illness or personal bankruptcy. In these cases, repossessed collateral for a defaulted consumer loan may not provide an adequate source of repayment for the outstanding loan, and the remaining value often does not warrant further substantial collection efforts against the borrower.

The Company will invest from time to time in pools of collateralized consumer loans originated and serviced by financial institutions operating outside of the Company's primary market area. Third party-originated consumer loan pools are generally acquired primarily when, in the view of management, they offer superior risk vs. return characteristics to debt securities. Such pools will, in some instances, have projected economic advantages in terms of yield and/or other portfolio characteristics, such as interest rate risk

sensitivity, superior to debt securities that would otherwise be purchased and are acquired to increase the overall performance characteristics of the Company's interest earning-asset portfolios viewed as a whole. Loans acquired through these transactions are required by the Company's internal policies to be underwritten to standards that are consistent with those of the Company's own underwriting guidelines and internal practices. Pre-purchase due diligence is performed that includes a thorough review of the originating institution's regulatory compliance procedures, underwriting practices and individual loan documentation. Since these pools are subject to borrower credit default and are collateralized by out-of-market assets, the Company relies on the best efforts of the originating institution, acting as the loans' servicer, to collect on the loans within the pool and to mitigate losses due to such defaults. Such mitigation efforts include the orderly and timely liquidation of loan collateral, as necessary. Accordingly, such loan pools have both the credit risk typically associated with consumer loans and servicer risk components that are carefully monitored by the Company on an ongoing basis.

Loan Originations, Purchases, Sales and Servicing

We benefit from a number of sources for our loan originations, including real estate broker referrals, existing customers, borrowers, builders, attorneys, and "walk-in" customers. Our loan origination activity may be affected adversely by a rising interest rate environment which may result in decreased loan demand. Other factors, such as the overall health of the local economy and competition from other financial institutions, can also impact our loan originations. Although we originate both fixed-rate and adjustable-rate loans, our ability to generate each type of loan depends upon borrower demand, market interest rates, borrower preference for fixed-rate versus adjustable-rate loans, and the interest rates offered on each type of loan by other lenders in our market area. These lenders include commercial banks, savings institutions, credit unions, and mortgage banking companies that also actively compete for local real estate loans. Accordingly, the volume of loan originations may vary from period to period.

The majority of the fixed rate residential loans that are originated each year meet the underwriting guidelines established by Fannie Mae. While infrequent, in the past, we have sold residential mortgage loans in the secondary market, and we may do so in the future, although we continue to service loans once they are sold.

From time to time, although infrequent, we may purchase commercial real estate loan participations in which we are not the lead lender. In these circumstances, we follow our customary loan underwriting and approval policies. We also have participated out portions of commercial and commercial real estate loans that exceeded our loans-to-one borrower legal lending limit and for purposes of risk diversification.

In recent years, the Bank has occasionally purchased broadly-diversified pools of essentially homogenous loans from originators outside of the Bank's market area. These originators generally specialize in loan types, such as consumer loans, other than those loan types that the Bank specializes in. These loans, which are generally relatively short in duration, are acquired to provide supplementary interest income as well as to provide improvements to the Bank's overall asset/liability mix, particularly with respect to interest rate risk. Third party-originated loan pools are acquired primarily when, in the view of management, they offer superior risk vs. return characteristics to debt securities. Such loans are generally acquired through the facilitation of third-party brokerages and are serviced in perpetuity by the originating entries or their designees. Funding for loan purchases of this type is generally obtained through incremental usage of brokered deposits and/or other forms of borrowed funds.

At December 31, 2019 the Bank held nine pools of loans originated by six unaffiliated third-party lenders with an aggregate amortized historical cost of \$97.1 million. Of these totals, \$89.1 million in aggregate amortized historical cost relates to seven loan pools acquired in 2019. Purchased loans have certain credit risk profiles distinct from those of the Bank's self-originated portfolio, most especially the portion of the purchased loans that are classified as unsecured consumer loans. At December 31, 2019, the Bank held \$27.2 million, \$22.2 million and \$6.6 million in purchased pooled loans secured by automobiles, residential real estate and commercial & industrial collateral, respectively. These purchased pools of loans totaled \$56.0 million on that date. In addition, the Bank held \$41.1 million in unsecured purchased consumer loans at December 31, 2019. All loans within these pools were considered to be performing at December 31, 2019.

The purchased pools of loans were subject to prepurchase analyses led by a team of the Bank's senior executives and credit analysts. In each case, the Bank's analytical processes considered the types of loans being evaluated, the underwriting criteria employed by the originating entity, the historical performance of such loans, especially in the most recent deeply recessionary environments, the collateral enhancements and other credit loss mitigation factors offered by the seller and the capabilities and financial stability of the servicing entities involved. In the view of management, from a credit risk perspective, these loan pools also benefit from broad diversification, including wide geographic dispersion, the readily-verifiable historical performance of similar loans issued by the originators, as well as the overall experience and skill of the underwriters and servicing entities involved as counterparties to the Bank in these transactions. In addition, these loan pools generally have significant underlying loan collateral and/or one or more of the following forms of credit enhancement: (1) contractual rights of loan substitution in the event of individual loan defaults, (2) retention of a portion of the principal amount of each loan by the seller, or (3) contractually-specified credit enhancement reserves accumulated from the collected cash flows generated by borrowers' repayment activities in excess of those cash flows due to the Bank.

Management believes that the substantial level of diversification within these loan pools and the presence of other mitigation factors, specific to each of the acquired pools in varying degrees, provides significant overall reduction of the potential credit risks inherent in these purchases. The performance of all purchased loan pools are monitored regularly from detailed reports and remittance reconciliations provided at least monthly by the servicing entities.

Loan Approval Procedures and Authority

The Bank's lending activities follow written, non-discriminatory underwriting standards and loan origination procedures established by management and the board of directors. Our policies are designed to provide loan officers with guidelines on acceptable levels of risk, given a broad range of factors. The loan approval process is intended to assess the borrower's ability to repay the loan, the viability of the loan and the adequacy of the value of the collateral that will secure the loan, if applicable.

The board of directors grants loan officers individual lending authority to approve extensions of credit. The level of authority for loan officers varies based upon the loan type, total relationship, form of collateral and risk rating of the borrower. Each loan officer is charged with the responsibility of achieving high credit standards. Individual lending authority can be increased, suspended or removed by the board of directors, as recommended by the President or Executive Vice President and Chief Banking Officer.

If a loan is in excess of any individual loan officer's lending authority, the extension of credit must be referred to the Officer Loan Committee ("OLC"). The OLC is comprised of the President (serving as chairman), the Executive Vice President and Chief Banking Officer (serving as chair in the absence of the President), the Executive Vice President, Chief Operating Officer, as well as other members of the management team and retail and commercial lenders as may be appointed by the President. The OLC has authority to approve all commercial loans, and one-to-four family residential real estate loans where the total related credit is \$1.2 million or less which are not within the lenders' individual authority. In addition, the OLC may approve all municipal loans, where the total related credit is \$2.5 million or less, and the individual loan amount is \$2.5 million or less for rated municipal loans, and \$1.5 million for unrated credits. The OLC has the authority to approve all consumer loans where the total related credit is \$2.5 million or less and the individual loan amount is \$200,000 for unsecured loans or \$750,000 for secured loans. The Executive Loan Committee, which consists of members of the Bank's board of directors, must approve all extensions of credit in excess of the limits for the OLC and lenders individual authority.

Loans to One Borrower

Under New York law, New York commercial banks are subject to loans-to-one borrower limits, which are substantially similar as those applicable to national banks, which generally restrict loans to one borrower to an amount equal to 15% of unimpaired capital and unimpaired surplus, which was \$14.3 million at December 31, 2019, on an unsecured basis, and an additional amount equal to 10% of unimpaired capital and unimpaired surplus, which was \$9.5 million at December 31, 2019, if the loan is secured by readily marketable collateral (generally, financial instruments and bullion, but not real estate), subject to exceptions.

Additionally, our internal loan policies limit the total related credit to be extended to any one borrower (after application of the rules of attribution), with respect to any and all loans with the Bank to 10% of tier 1 and 2 capital, subject to certain exceptions. The indebtedness includes all credit exposure whether direct or contingent, used or unused.

ASSET QUALITY

Loan Delinquencies and Collection Procedures

When a loan becomes delinquent, we make attempts to contact the borrower to determine the cause of the delayed payments and seek a solution to permit the loan to be brought current within a reasonable period of time. The outcome can vary with each individual borrower. In the case of mortgage loans and consumer loans, a late notice is sent 15 days after an account becomes delinquent. If delinquency persists, notices are sent at the 30 day delinquency mark, the 45 day delinquency mark and the 60 day delinquency mark. We also attempt to establish telephone contact with the borrower early on in the process. In the case of residential mortgage loans, included in every late notice is a letter that includes information regarding home-ownership counseling. As part of a workout agreement, we will accept partial payments during the month in order to bring the account current. If attempts to reach an agreement are unsuccessful and the customer is unable to comply with the terms of the workout agreement, we will review the account to determine if foreclosure is warranted, in which case, consistent with New York law, we send a 90 day notice of foreclosure and then a 30 day notice before legal proceedings are commenced. A consumer final demand letter is sent in the case of a consumer loan. In the case of commercial loans and commercial mortgage loans, we follow a similar notification practice with the exception of the previously mentioned information on home-ownership counseling. In addition, commercial loans do not require 90 day notices of foreclosure. Generally, commercial borrowers only receive 10 day notices before legal proceedings can be commenced. Commercial loans may experience longer workout times that may trigger a need for a loan modification that could meet the requirements of a troubled debt restructured loan.

Impaired Loans, Non-performing Loans and Troubled Debt Restructurings

The policy of the Bank is to provide a continuous assessment of the quality of its loan portfolio through the maintenance of an internal and external loan review process. The process incorporates a loan risk grading system designed to recognize degrees of risk on individual commercial and mortgage loans in the portfolio. Management is responsible for monitoring of asset quality and risk grade designations, which are communicated to the board on a regular basis.

We generally cease accruing interest on our loans when contractual payments of principal or interest have become 90 days past due or management has serious doubts about further collectability of principal or interest, even though the loan is currently performing. A loan may remain on accrual status if it is in the process of collection and is either guaranteed or well secured. When a loan is placed on non-accrual status, unpaid interest credited to income is reversed. Interest received on non-accrual loans generally is applied against principal or interest if it is recognized on the cash basis method. Generally, loans are restored to accrual status when the obligation is brought current, has performed in accordance with the contractual terms for a reasonable period of time, generally for a minimum of six months, and the ultimate collectability of the total contractual principal and interest is no longer in doubt.

Our Allowance for Loan and Lease Losses policy (“ALLL”) establishes criteria for selecting loans to be measured for impairment based on the following:

Residential and Consumer Loans:

- All loans rated substandard or worse, on nonaccrual, and above our total related credit (“TRC”) threshold balance of \$300,000.
- All Troubled Debt Restructured Loans

Commercial Lines and Loans, Commercial Real Estate and Tax-exempt loans:

- All loans rated substandard or worse, on nonaccrual, and above our TRC threshold balance of \$100,000.
- All Troubled Debt Restructured Loans

Impairment is measured by determining the present value of expected future cash flows or, for collateral-dependent loans, the fair value of the collateral adjusted for market conditions and selling expenses as compared to the loan carrying value.

Troubled Debt Restructurings (“TDR”)

TDRs are loan restructurings in which we, for economic or legal reasons related to an existing borrower’s financial difficulties, grant a concession to the debtor that we would not otherwise consider. Typically, a troubled debt restructuring involves a modification of terms of debt, such as reduction of the stated interest rate for the remaining original life of the debt, extension of the maturity date at a stated interest rate lower than the current market rate for new debt with similar risk, reduction of the face amount of the debt, or reduction of accrued interest. We consider modifications only after analyzing the borrower’s current repayment capacity, evaluating the strength of any guarantors based on documented current financial information, and assessing the current value of any collateral pledged. These modifications are made only when there is a reasonable and attainable workout plan that has been agreed to by the borrower and that is in our best interests. Some examples of residential TDRs include restructures encouraged by the Federal Government’s HAMP and HARP Programs, in which we have participated.

Loans on non-accrual status at the date of modification are initially classified as non-accrual troubled debt restructurings. Our policy provides that troubled debt restructured loans are returned to accrual status after a period of satisfactory and reasonable future payment performance under the terms of the restructuring. Satisfactory payment performance is generally no less than six consecutive months of timely payments and demonstrated ability to continue to repay.

Foreclosed real estate

Fair values for foreclosed real estate are initially recorded based on market value evaluations by third parties, less costs to sell (“initial cost basis”). Any write-downs required when the related loan receivable is exchanged for the underlying real estate collateral at the time of transfer to foreclosed real estate are charged to the allowance for loan losses. Values are derived from appraisals of underlying collateral or discounted cash flow analysis. Subsequent to foreclosure, valuations are updated periodically and assets are marked to current fair value, not to exceed the initial cost basis. In the determination of fair value subsequent to foreclosure, management also considers other factors or recent developments, such as, changes in absorption rates and market conditions from the time of valuation, and anticipated sales values considering management’s plans for disposition. Either change could result in adjustment to lower the property value estimates indicated in the appraisals.

Loan delinquencies together with properties within our Foreclosed Real Estate portfolio are reviewed monthly by the board of directors.

Classified Assets

Federal regulations provide for the classification of loans and other assets, such as debt and equity securities considered by the FDIC to be of lesser quality, as “substandard,” “doubtful” or “loss.” An asset is considered “substandard” if it is inadequately protected by the current net worth and paying capacity of the obligor or of the collateral pledged, if any. “Substandard” assets include those characterized by the “distinct possibility” that the insured institution will sustain “some loss” if the deficiencies are not corrected. Assets classified as “doubtful” have all of the weaknesses inherent in those classified “substandard,” with the added characteristic that the weaknesses present make “collection or liquidation in full,” on the basis of currently existing facts, conditions, and values, “highly questionable and improbable.” Assets classified as “loss” are those considered “uncollectible” and of such little value that their continuance as assets without the establishment of a specific allowance for loan losses is not warranted. Assets that do not currently expose the insured institution to sufficient risk to warrant classification in one of the aforementioned categories but possess weaknesses are designated as “special mention” by our management.

When an insured institution classifies problem assets as either substandard or doubtful, it may establish general allowances in an amount deemed prudent by management to cover losses that are both probable and reasonable to estimate. General allowances represent allowances which have been established to cover accrued losses associated with lending activities that are both probable and reasonable to estimate, but which, unlike specific allowances, have not been allocated to particular problem assets. When an insured institution classifies problem assets as “loss,” it is required either to establish a specific allowance for losses equal to 100% of that portion of the asset so classified or to charge-off such amount. An institution’s determination as to the classification of its assets and the amount of its valuation allowances is subject to review by the regulatory authorities, which may require the establishment of additional general or specific allowances.

In connection with the filing of our periodic regulatory reports and in accordance with our classification of assets policy, we continuously assess the quality of our loan portfolio and we regularly review the loans in our loan portfolio to determine whether any loans require classification in accordance with applicable regulations. Loans are listed on the “watch list” initially because of emerging financial weaknesses even though the loan is currently performing in accordance with its terms, or delinquency status, or if the loan possesses weaknesses although currently performing. Management reviews the status of our loan portfolio delinquencies, by loan types, with the full board of directors on a monthly basis. Individual classified loan relationships are discussed as warranted. If a loan deteriorates in asset quality, the classification is changed to “special mention,” “substandard,” “doubtful” or “loss” depending on the circumstances and the evaluation. Generally, loans 90 days or more past due are placed on nonaccrual status and classified “substandard.”

We also employ a risk grading system for our loans to help assure that we are not taking unnecessary and/or unmanageable risk. The primary objective of the loan risk grading system is to establish a method of assessing credit risk to further enable management to measure loan portfolio quality and the adequacy of the allowance for loan losses. Further, we contract with an external loan review firm to complete a credit risk assessment of the loan portfolio on a regular basis to help determine the current level and direction of our credit risk. The external loan review firm communicates the results of their findings to the Executive Loan Committee in writing and by periodically attending the Executive Loan Committee meetings. Any material issues discovered in an external loan review are also communicated immediately to the President of the Bank. See Note 5 to the consolidated financial statements for further details on the Company’s credit quality indicators that define our risk grading system.

Allowance for Loan Losses

The allowance for loan losses represents management’s estimate of losses inherent in the loan portfolio as of the date of the statement of condition and it is recorded as a reduction of loans. The allowance for loan losses is maintained at a level considered adequate to provide for losses that can be reasonably anticipated. Management performs a quarterly evaluation of the adequacy of the allowance. The allowance is increased by the provision for loan losses, and decreased by charge-offs, net of recoveries. Loans deemed to be uncollectible are charged against the allowance for loan losses, and subsequent recoveries, if any, are credited to the allowance. All or part of the principal balance of loans receivable are charged off to the allowance as soon as it is determined that the repayment of all or part of the principal balance is highly unlikely. Non-residential consumer loans are generally charged off no later than 120 days past due on a contractual basis, unless productive collection efforts are providing results. Consumer loans may be charged off earlier in the event of bankruptcy, or if there is an amount that is deemed uncollectible. No portion of the allowance for loan losses is restricted to any individual loan type and the entire allowance is available to absorb any and all loan losses.

The allowance is based on three major components which are: (i) specific components for impaired loans, (ii) recent historical losses and several qualitative factors applied to a general pool of loans, and (iii) an unallocated component.

The first component is the specific allowance that relates to loans that are classified as impaired. For these loans, an allowance is established when the discounted cash flows or collateral value of the impaired loan are lower than the carrying value of the loan. A loan is considered impaired when, based on current information and events, it is probable that we will be unable to collect the scheduled payments of principal or interest when due according to the contractual terms of the loan agreement. Impairment is measured by either the present value of the expected future cash flows discounted at the loan's effective interest rate or the fair value of the underlying collateral if the loan is collateral dependent. The majority of our loans utilize the fair value of the underlying collateral. Factors considered by management in determining impairment include payment status, collateral value and the probability of collecting scheduled principal and interest payments when due. Loans that experience insignificant payment delays and payment shortfalls generally are not classified as impaired. Management determines the significance of payment delays and shortfalls on a case-by case basis, taking into consideration all of the circumstances surrounding the loan and the borrower, including the length and reason for the delay, the borrower's prior payment record and the amount of shortfall in relation to what is owed.

The second component is the general allowance which covers pools of loans, by loan class, not considered impaired, smaller balance homogenous loans, such as residential real estate, home equity and other consumer loans. These pools of loans are evaluated for loss exposure based on historical loss rates for each of these categories of loans. The ratio of net charge-offs to loans outstanding within each loan class over the most recent eight quarters, lagged by one quarter, is used to generate the historical loss rates.

In addition, qualitative factors are added to the historical loss rates in arriving at the total allowance for loan losses needed for this general pool of loans. The qualitative factors include changes in national and local economic trends, the rate of growth in the portfolio, trends of delinquencies and nonaccrual balances, changes in loan policy, and changes in lending management experience and related staffing. Each factor is assigned a value to reflect improving, stable or declining conditions based on management's best judgment using relevant information available at the time of the evaluation. These qualitative factors, applied to each product class, make the evaluation inherently subjective, as it requires material estimates that may be susceptible to significant revision as more information becomes available.

The third component may consist of an unallocated allowance which is maintained to cover uncertainties that could affect management's estimate of probable losses. The unallocated component of the allowance, when present, reflects an additional margin for potential imprecision inherent in the underlying assumptions used in the methodologies for estimating specific and general losses in the portfolio. This component would typically be appropriate in times of significant economic dislocations or uncertainties in either, or both, the local and national economies. The unallocated allowance generally comprises less than 10% of the total allowance for loan losses and can be as little as 0% of total allowance.

When a loan is determined to be impaired, we will reevaluate the collateral which secures the loan. For real estate loans, we will obtain a new appraisal or broker's opinion, whichever is considered to provide the most accurate value in the event of sale. An evaluation of equipment held as collateral will be obtained from an independent firm able to provide such an evaluation. Collateral will be inspected not less than annually for all impaired loans and will be reevaluated not less than every two years. Appraised values are discounted to arrive at the estimated selling price of the collateral, which is considered to be the estimated fair value. The discounts also include estimated costs to sell the property. For commercial and industrial loans secured by non-real estate collateral, such as accounts receivable, inventory and equipment, estimated fair values are determined based on the borrower's financial statements, inventory reports, accounts receivable agings or equipment appraisals or invoices. Indications of value from these sources are generally discounted based on the age of the financial information or the quality of the assets.

Large groups of homogeneous loans, including purchased loans, are evaluated for impairment in the aggregate. Accordingly, we do not separately identify individual residential mortgage loans with outstanding principal balances less than \$300,000, home equity and other consumer loans for impairment disclosures. We make exceptions to this general rule when such loans are (1) rated substandard or worse, on nonaccrual status and are related to borrowers with total related credit exposure in excess of our threshold balance of \$300,000; or (2) the loans are subject to a troubled debt restructuring agreement. The projected credit losses related to purchased loan pools are evaluated prior to purchase and the performance of those loans against expectations are analyzed at least monthly. Over the life of the purchased loan pools, the allowance for loan losses is adjusted, through the provision for loan losses, for expected loss experience, over the projected life of the loans. The expected credit loss experience is determined at the time of purchase and is modified, to the extent necessary, during the life of the purchased loan pools. The Bank does not initially increase the allowance for loan losses on the purchase date of the loan pools.

In addition, the FDIC and NYSDFS, as an integral part of their examination process, periodically review our allowance for loan losses and may require us to recognize additions to the allowance based on their judgments about information available to them at the time of their examination, which may not be currently available to management. Based on management's comprehensive analysis of the loan portfolio, we believe the current level of the allowance for loan losses is adequate.

INVESTMENT AND HEDGING ACTIVITIES

Our investment policy is established by the board of directors. Our investment policy dictates that investment decisions will be made based on the safety of the investment, liquidity requirements, potential returns, cash flow targets, and consistency with our interest rate risk management objectives. The Asset Liability Management Committee (the “ALCO”) of the board of directors acts in the capacity of an investment committee and is responsible for overseeing our investment program and evaluating on an ongoing basis our investment policy and objectives. Our President, Chief Operating Officer and Chief Financial Officer have the authority to purchase and sell securities within specific guidelines established by the investment policy. All transactions are reviewed by the board of directors at its regular meetings.

The general objectives of the investment securities portfolio are to assist in the overall interest rate risk management of the Bank, while generating a reasonable rate of return consistent with the risk of purchased principal, provide a source of liquidity, and reduce our overall credit risk profile. We also purchase securities to provide necessary liquidity for day-to-day operations and when investable funds exceed loan demand. The effect that the proposed security purchase would have on our overall credit and interest rate risk profile and our risk-based equity ratios is also considered in evaluating the timing, mix and characteristics of investment security purchases.

All investment securities must meet regulatory guidelines and be permissible bank investments. Our investment securities include a broad range of debt securities issued by the United States Government and its agencies and sponsored enterprises, state and municipal governments and agencies, and corporations. The Company also invests in mortgage-backed securities issued or guaranteed by United States Government sponsored enterprises, collateralized mortgage obligations and similar debt securities issued by both government sponsored entities and private (non-governmental) issuers, and asset-backed securities that are generally issued by private entities. The Company invests primarily in debt securities but will from time to time also invest, within certain regulatory limits, in mutual funds and equity securities.

All securities purchased will be classified at the time of purchase as either held-to-maturity or available-for-sale. We do not maintain a trading account. Securities purchased with the intent and ability to hold until maturity will be classified as held-to-maturity. Securities placed in the held-to-maturity category will be accounted for at amortized cost.

Securities that do not qualify or are not categorized as held-to-maturity are classified as available-for-sale. This classification includes securities that may be sold in response to changes in interest rates, the security's prepayment risk, liquidity needs, the availability of and the yield on alternative investments, and funding sources and terms. These securities are reported at fair value, which is determined on a monthly basis. Unrealized gains and losses are reported as a separate component of capital, net of tax. The aggregate change in value of the portfolio is reported to the board of directors monthly.

The composition of the investment portfolio is substantially the same for securities classified as both held-to-maturity and available-for-sale, although the portion of the securities portfolio classified as available-for-sale generally has a higher concentration of shorter-term, highly liquid assets, such as U.S. Treasury securities. Such securities are held as part of the Bank's liquidity management programs. The Bank holds a significant portion of its investment securities in mortgage-backed securities and collateralized mortgage obligations (many, but not all of which are issued by government-sponsored enterprises) and direct federal government and federal agency obligations. Federal agency issuers include the Federal Farm Credit Bank, Federal Home Loan Bank, Federal National Mortgage Association (“Fannie Mae”), Federal Home Loan Mortgage Corporation (“Freddie Mac”) and the Government National Mortgage Association (“Ginnie Mae”), among others. For a discussion on mortgage backed securities, see “Mortgage-Backed Securities and Collateralized Mortgage Obligations.”

As part of our membership in the FHLBNY, we are required to maintain a dividend-earning investment in FHLBNY stock. This investment is classified separately from securities due to significant restrictions on sale or transfer of the stock. For further information regarding our securities portfolio, see Note 4 to the consolidated financial statements.

MORTGAGE-BACKED SECURITIES AND COLLATERALIZED MORTGAGE OBLIGATIONS

We purchase mortgage-backed securities and collateralized mortgage obligations guaranteed by Fannie Mae, Freddie Mac and Ginnie Mae. In recent years, the Bank has also increased the level of its investments in mortgage-backed securities and collateralized mortgage obligations issued by private entities. These securities are generally senior tranches, and most often the most senior tranche, of multi-class issuances that provide substantial credit enhancements to their senior tranches and therefore reasonable, but not absolute, protection for the Bank from the risks of default. We invest in mortgage-backed securities and collateralized mortgage obligations to achieve positive interest rate spreads with minimal administrative expense, and to lower our credit risk through geographic diversification. These securities are generally relatively short in duration and therefore reduce the Bank's sensitivity to changes in interest rates. All privately issued mortgage-backed securities held by the Bank at December 31, 2019 were either rated at or above the lowest investment grade for credit quality by a nationally-recognized statistical rating organization (a “NRSRO”) or were

the most senior tranches of securitizations that were not rated by a NRSRO at the time of the securities' issuance. We regularly monitor the credit quality of this portfolio. At December 31, 2019, no securities held by the Bank in this category had been downgraded by a NRSRO.

Mortgage-backed securities and collateralized mortgage obligations are created by pooling mortgages and issuing a security with an interest rate which is less than the interest rate on the underlying mortgages. These securities typically represent a participation interest in a pool of single- or multi-family mortgages and certain types of commercial real estate loans, although we generally focus our investments on mortgage related securities backed by one-to-four family real estate loans. The issuers of such securities pool and resell the participation interests in the form of securities to investors such as the Bank, and in the case of government agency sponsored issues, guarantee the payment of principal and interest to investors. Mortgage-backed securities and collateralized mortgage obligations generally yield less than the loans that underlie such securities because of the cost of payment guarantees, if any, and credit enhancements. These securities, which are most often fixed-rate, are usually substantially more liquid than individual mortgage loans.

Investments in collateralized mortgage obligations involve a risk that actual prepayments may differ from estimated prepayments over the life of the security, which may require adjustments to the amortization of any premium or accretion of any discount relating to such instruments, thereby changing the net yield on such securities. There is also reinvestment risk associated with the cash flows from such securities or if such securities are redeemed by the issuer. In addition, the market value of such securities may be adversely affected in a rising interest rate environment, particularly since vast majority our collateralized mortgage obligations have a fixed rate of interest. The relatively short weighted average remaining life of our collateralized mortgage obligation portfolio mitigates our potential risk of loss in a rising interest rate environment.

ASSET-BACKED SECURITIES

We also purchase asset-backed securities issued by private entities. These securities typically represent a participation interest in a pool of non-mortgage loans. Asset-backed securities are created by pooling homogenous non-mortgage loans (such as unsecured consumer loans) and issuing a security with an interest rate which is less than the interest rate on the underlying loan notes. The issuers of such securities pool and resell the participation interests in the form of securities to investors such as the Bank. Asset-backed securities generally yield less than the loans that underlie such securities because of the cost of credit enhancements. These securities, which may be fixed or adjustable-rate are usually more substantially more liquid than individual loans.

The securities of the type the Bank typically invests in are collateralized by consumer loans or commercial business trade receivables and are generally senior tranches of multi-class issuances. These tranches are offered with substantial credit enhancements and therefore reasonable, but not absolute, protection for the Company from the risks of default. We invest in asset-backed securities to achieve positive interest rate spreads with minimal administrative expense, and to lower our credit risk through geographical and asset-type diversification. These securities are generally relatively short in duration and therefore reduce the Bank's sensitivity to changes in interest rates. All asset-backed securities held by the Bank at December 31, 2019 were either rated at or above the lowest investment grade for credit quality by a NRSRO or were the most senior tranches of securitizations that were not rated by a NRSRO at the time of the securities' issuance. We regularly monitor the underlying credit quality of this portfolio. At December 31, 2019, no securities held by the Bank in this category had been downgraded by a NRSRO.

SOURCES OF FUNDS

General

Deposits have traditionally been our primary source of funds for use in lending and investment activities. We also rely on advances from the FHLBNY, the Certificates of Deposit Account Registry Service ("CDARS") provided by an independent third-party, Promontory Interfinancial Network, and other deposits acquired through unaffiliated third-party financial institutions as forms of brokered deposits. In addition to deposits and borrowings, we derive funds from scheduled loan payments, investment maturities, loan prepayments, retained earnings and income on interest-earning assets. While scheduled loan payments and income on interest-earning assets are relatively stable sources of funds, deposit inflows and outflows can vary widely and are influenced by prevailing market interest rates, economic conditions and competition from other financial institutions.

Deposits

A majority of our depositors are persons or businesses who work, reside or operate in Oswego and Onondaga Counties. We offer a variety of deposits, including checking, savings, money market deposit accounts, and certificates of deposit. Deposit account terms vary, with the principal differences being the minimum balance required, the amount of time the funds must remain on deposit and the interest rate. We establish interest rates, maturity terms, service fees and withdrawal penalties on a periodic basis. Management determines the rates and terms based on rates paid by competitors, our need for funds or liquidity, overall growth goals and federal and state regulations. The flow of deposits is influenced significantly by general economic conditions, changes in interest rates and

competition. The variety of deposit accounts that we offer allows us to be competitive in generating deposits and to respond with flexibility to changes in our customers' demands. We believe that deposits are a stable source of funds, but our ability to attract and maintain deposits at favorable rates will be affected by market conditions, including competition and prevailing interest rates. In addition, the Bank holds municipal deposits, which have been a more volatile source of funds.

The CDARS program is a form of a brokered deposit facility in which we have been a participant since 2009. In addition to offering depositors enhanced FDIC insurance coverage, being a participant in CDARS allows us to fund our balance sheet through the CDARS' One-Way Buy program. This program uses a competitive bid process for available deposits, up to a varying amount that was approximately \$50 million at any one weekly bidding session as of December 31, 2019, at specified terms. These deposits work well for us because of their weekly availability, coupled with their short term duration, which allows us to more closely mirror our funding needs. We believe this arrangement is a viable source of funding provided that we maintain our "well-capitalized" status. See Note 11 to the consolidated financial statements for further details on our brokered deposits.

In addition, from time to time, the Bank will acquire larger blocks of brokered deposits, outside of the CDARS program, that are obtained from unaffiliated third-party financial institutions. These brokered deposits generally have modestly longer maturity dates than the CDARS deposits, can be acquired in more substantial block size, and generally have issuance rates similar to the CDARS program.

Brokered deposits are employed by the Bank's management to supplement the funding that the Bank obtains from customer deposits and other borrowings, principally from the FHLBNY, and are used to increase the overall efficiency of the Bank's funding mix. Management intends to continue to use brokered deposits in the future as an integral part of its overall funding strategies.

Borrowings

The Bank has a number of existing credit facilities available to it. At December 31, 2019, the Bank had existing lines of credit at FHLBNY, the Federal Reserve Bank ("FRB"), and two other correspondent banks. We obtain advances primarily from the FHLBNY utilizing the security of the common stock we own in the FHLBNY and qualifying residential mortgage loans as collateral, provided certain standards related to creditworthiness are met. These advances are made pursuant to several credit programs, each of which has its own interest rate and range of maturities. FHLBNY advances are generally available to meet seasonal and other withdrawals of deposit accounts and to permit increased lending.

Subordinated Loans

The Company has a non-consolidated subsidiary trust, Pathfinder Statutory Trust II, of which the Company owns 100% of the common equity. The Trust issued \$5,000,000 of 30-year floating rate Company-obligated pooled capital securities of Pathfinder Statutory Trust II ("Floating-Rate Debentures"). The Company borrowed the proceeds of the capital securities from its subsidiary by issuing floating rate junior subordinated deferrable interest debentures having substantially similar terms. The capital securities mature in 2037 and are treated as Tier 1 capital by the FDIC and the FRB. The capital securities of the trust are a pooled trust preferred fund of Preferred Term Securities VI, Ltd., with interest rates that reset quarterly, and are indexed to the 3-month London Interbank Offered Rate ("LIBOR") plus 1.65%. These securities have a five-year call provision. The Company guarantees all of these securities.

As currently scheduled, The United Kingdom's Financial Conduct Authority ("FCA"), the organization responsible for regulating LIBOR, will cease publishing LIBOR indices at the end of 2021. The Alternative Reference Rates Committee (the "ARRC"), formed by the FRB and the Federal Reserve Bank of New York, has been charged with developing an alternative rate that will replace LIBOR in the United States (U.S. dollar-denominated LIBOR). The ARRC has identified the Secured Overnight Financing Rate ("SOFR") as the rate that represents best practice for use in U.S. dollar-denominated LIBOR derivatives and other financial contracts. Accordingly, SOFR currently represents the ARRC's preferred alternative to LIBOR. However, the replacement of LIBOR is a highly complex task due to the large number and aggregate magnitude of currently-outstanding LIBOR-based contracts, as well as the broad range of users of these indices. As a result, there are a number of significant objections to the adoption of the SOFR index that have been brought forth for consideration by a wide-range of entities. Management has analyzed the Company's aggregate exposure to instruments that are indexed to LIBOR (including the Company's acquired loan participations, fixed-income investments, hedging instruments and the Floating-Rate Debentures) and concluded that the adoption of SOFR, or another similar index that may ultimately be promulgated by the ARRC, will not materially impact the Company or the results of its operations.

The Company's equity interest in the trust subsidiary is included in other assets on the Consolidated Statements of Financial Condition at December 31, 2019 and 2018. For regulatory reporting purposes, the Federal Reserve has indicated that the preferred securities will continue to qualify as Tier 1 Capital subject to previously specified limitations, until further notice. If regulators make a determination that Trust Preferred Securities can no longer be considered in regulatory capital, the securities become callable and the Company may redeem them.

On October 15, 2015, the Company executed a \$10.0 million non-amortizing Subordinated Loan with an unrelated third party that is scheduled to mature on October 1, 2025. The Company has the right to prepay the Subordinated Loan at any time after October 15, 2020 without penalty. The annual interest rate charged to the Company will be 6.25% through the maturity date of the subordinated loan. The Subordinated Loan is senior in the Company's credit repayment hierarchy only to the Company's common equity and preferred stock and, as a result, qualifies as Tier 2 capital for all future periods when applicable. The Company paid \$172,000 in origination and legal fees as part of this transaction. These fees will be amortized over the life of the Subordinated Loan through its first call date using the effective interest method. The effective cost of funds related to this transaction is 6.44% calculated under this method. Accordingly, interest expense of \$650,000 and \$647,000 were recorded in the years ended December 31, 2019 and 2018, respectively.

SUPERVISION AND REGULATION

General

Pathfinder Bank is a New York-chartered commercial bank and the Company is a Maryland corporation and a registered bank holding company. The Bank's deposits are insured up to applicable limits by the FDIC. The Bank is subject to extensive regulation by NYSDFS, as its chartering agency, and by the FDIC, its primary federal regulator and deposit insurer. The Bank is required to file reports with, and is periodically examined by, the FDIC and the NYSDFS concerning its activities and financial condition and must obtain regulatory approvals prior to entering into certain transactions, including, but not limited to, mergers with or acquisitions of other financial institutions. As a registered bank holding company, the Company is regulated by the Federal Reserve Board.

The regulatory and supervisory structure establishes a comprehensive framework of activities in which an institution can engage and is intended primarily for the protection of depositors and the deposit insurance funds, rather than for the protection of shareholders and creditors. The regulatory structure also gives the regulatory authorities extensive discretion in connection with their supervisory and enforcement activities and examination policies, including policies concerning the establishment of deposit insurance assessment fees, classification of assets and establishment of adequate loan loss reserves for regulatory purposes. Any change in such regulatory requirements and policies, whether by the New York State legislature, the NYSDFS, the FDIC, the Federal Reserve Board or the United States Congress, could have a material adverse impact on the financial condition and results of operations of the Company and the Bank.

Set forth below is a summary of certain material statutory and regulatory requirements applicable to the Company and the Bank. The summary is not intended to be a complete description of such statutes and regulations and their effects on the Company and the Bank.

The Dodd-Frank Act

The Dodd-Frank Act significantly changed bank regulation and has affected the lending, investment, trading and operating activities of depository institutions and their holding companies. The Dodd-Frank Act created the Consumer Financial Protection Bureau with extensive powers to supervise and enforce consumer protection laws. The Consumer Financial Protection Bureau has broad rule-making authority for a wide range of consumer protection laws that apply to all banks and savings institutions, including the authority to prohibit "unfair, deceptive or abusive" acts and practices. Banks and savings institutions with \$10 billion or less in assets, such as Pathfinder Bank, continue to be examined by their applicable federal bank regulators. The Dodd-Frank Act also gave state attorneys general the ability to enforce applicable federal consumer protection laws.

The Dodd-Frank Act broadened the base for FDIC assessments for deposit insurance and permanently increased the maximum amount of deposit insurance to \$250,000 per depositor. The Dodd-Frank Act also, among other things, required originators of certain securitized loans to retain a portion of the credit risk, stipulated regulatory rate-setting for certain debit card interchange fees, repealed restrictions on the payment of interest on commercial demand deposits and contained a number of reforms related to mortgage originations. The Dodd-Frank Act increased the ability of shareholders to influence boards of directors by requiring companies to give shareholders a non-binding vote on executive compensation and so-called "golden parachute" payments. The Dodd-Frank Act also directed the Federal Reserve Board to promulgate rules prohibiting excessive compensation paid to company executives, regardless of whether the company is publicly traded or not.

The Economic Growth, Regulatory Relief and Consumer Protection Act of 2018 (the "EGRRCPA")

On May 24, 2018, the EGRRCPA was enacted, which repealed or modified certain provisions of the Dodd-Frank Act and eased regulations on all financial institutions with the exception of the largest banks. The EGRRCPA's provisions include, among other items: (i) exempting banks with less than \$10 billion in assets from the ability-to-repay requirements for certain qualified residential mortgage loans held in portfolio; (ii) not requiring appraisals for certain transactions valued at less than \$400,000 in rural areas; (iii) exempting banks that originate fewer than 500 open-end and 500 closed-end mortgages from HMDA's expanded data disclosures; (iv) clarifying that, subject to various conditions, reciprocal deposits of another depository institution obtained using a deposit broker through a deposit placement network for purposes of obtaining maximum deposit insurance would not be considered brokered

deposits subject to the FDIC's brokered-deposit regulations; (v) raising eligibility for the 18-month exam cycle from \$1 billion to banks with \$3 billion in assets; and (vi) simplifying capital calculations by requiring regulators to establish for institutions under \$10 billion in assets a community bank leverage ratio at a percentage not less than 8% and not greater than 10%; that such institutions may elect to replace the general applicable risk-based capital requirements for determining well-capitalized status. In addition, the law required the Federal Reserve Board to raise the asset threshold under its Small Bank Holding Company Policy Statement from \$1 billion to \$3 billion for bank or savings and loan holding companies that are exempt from consolidated capital requirements, provided that such companies meet certain other conditions such as not engaging in significant nonbanking activities.

New York Bank Regulation

Pathfinder Bank derives its lending, investment, branching and other authority primarily from the applicable provisions of New York State Banking Law and the regulations of the NYSDFS, as limited by federal laws and regulations. Under these laws and regulations, commercial banks, including Pathfinder Bank, may invest in real estate mortgages, consumer and commercial loans, certain types of debt securities, including certain corporate debt securities and obligations of federal, state and local governments and agencies, certain types of corporate equity securities and certain other assets. Under the statutory authority for investing in equity securities, a bank may invest up to 2% of its assets or 20% of its capital, whichever is less in exchange-registered corporate stock. Investment in the stock of a single corporation is limited to the lesser of 1% of the bank's assets or 15% of the Bank's capital. The Bank's authority to invest in equity securities is constrained by federal law, as explained later. Such equity securities must meet certain earnings ratios and other tests of financial performance. A bank may also exercise trust powers upon approval of the NYSDFS. Pathfinder Bank does not presently have trust powers.

New York State chartered banks may also invest in subsidiaries. A bank may use this power to invest in corporations that engage in various activities authorized for banks, plus any additional activities that may be authorized by the NYSDFS.

Furthermore, New York banking regulations impose requirements on loans which a bank may make to its executive officers and directors and to certain corporations or partnerships in which such persons have equity interests. These requirements include that (i) certain loans must be approved in advance by a majority of the entire board of directors and the interested party must abstain from participating directly or indirectly in voting on such loan, (ii) the loan must be on terms that are not more favorable than those offered to unaffiliated third parties, and (iii) the loan must not involve more than a normal risk of repayment or present other unfavorable features.

Under the New York State Banking Law, the Superintendent may issue an order to a New York State chartered banking institution to appear and explain an apparent violation of law, to discontinue unauthorized or unsafe practices and to keep prescribed books and accounts. Upon a finding by the NYSDFS that any director, trustee or officer of any banking organization has violated any law, or has continued unauthorized or unsafe practices in conducting the business of the banking organization after having been notified by the Superintendent to discontinue such practices, such director, trustee or officer may be removed from office after notice and an opportunity to be heard. The Bank does not know of any past or current practice, condition or violation that may lead to any proceeding by the Superintendent or the NYSDFS against the Bank or any of its directors or officers.

New York State Community Reinvestment Regulation

Pathfinder Bank is also subject to provisions of the New York State Banking Law which imposes continuing and affirmative obligations upon banking institutions organized in New York State to serve the credit needs of its local community ("NYCRA") which are substantially similar to those imposed by the Federal Community Reinvestment Act ("CRA"). Pursuant to the NYCRA, a bank must file copies of all federal CRA reports with the NYSDFS. The NYCRA requires the NYSDFS to make a written assessment of a bank's compliance with the NYCRA every 24 to 36 months, utilizing a four-tiered rating system and make such assessment available to the public. The NYCRA also requires the Superintendent to consider a bank's NYCRA rating when reviewing a bank's application to engage in certain transactions, including mergers, asset purchases and the establishment of branch offices or automated teller machines, and provides that such assessment may serve as a basis for the denial of any such application. Pathfinder Bank's NYCRA most recent rating, dated March 31, 2015, was "satisfactory."

Federal Regulations

Capital Requirements. Federal regulations require federally insured depository institutions to meet several minimum capital standards: a common equity Tier 1 capital to risk-based assets ratio of 4.5%, a Tier 1 capital to risk-based assets ratio of 6.0%, a total capital to risk-based assets of 8.0%, and a 4.0% Tier 1 capital to total assets leverage ratio. These capital requirements were effective January 1, 2015 and are the result of a final rule implementing recommendations of the Basel Committee on Banking Supervision and certain requirements of the Dodd-Frank Act.

In determining the amount of risk-weighted assets for purposes of calculating risk-based capital ratios, all assets, including certain off-balance sheet assets (e.g., recourse obligations, direct credit substitutes, residual interests) are multiplied by a risk weight factor

assigned by the regulations based on the risks believed inherent in the type of asset. Higher levels of capital are required for asset categories believed to present greater risk. Common equity Tier 1 capital is generally defined as common stockholders' equity and retained earnings. Tier 1 capital is generally defined as common equity Tier 1 and additional Tier 1 capital. Additional Tier 1 capital includes certain noncumulative perpetual preferred stock and related surplus and minority interests in equity accounts of consolidated subsidiaries. Total capital includes Tier 1 capital (common equity Tier 1 capital plus additional Tier 1 capital) and Tier 2 capital. Tier 2 capital is comprised of capital instruments and related surplus, meeting specified requirements, and may include cumulative preferred stock and long-term perpetual preferred stock, mandatory convertible securities, intermediate preferred stock and subordinated debt. Also included in Tier 2 capital is the allowance for loan and lease losses limited to a maximum of 1.25% of risk-weighted assets and, for institutions that have exercised an opt-out election regarding the treatment of Accumulated Other Comprehensive Income, up to 45% of net unrealized gains on available-for-sale equity securities with readily determinable fair market values. Pathfinder Bank exercised the opt-out election. Calculation of all types of regulatory capital is subject to deductions and adjustments specified in the regulations. In assessing an institution's capital adequacy, regulators take into consideration, not only these numeric factors, but qualitative factors as well, and has the authority to establish higher capital requirements for individual institutions when and where deemed necessary.

In addition to establishing the minimum regulatory capital requirements, the regulations limit capital distributions and certain discretionary bonus payments to management personnel if the institution does not hold a "capital conservation buffer" consisting of 2.5% of common equity Tier 1 capital to risk-weighted assets above the amount necessary to meet its minimum risk-based capital requirements. Notwithstanding the foregoing, pursuant to the EGRRCPA, during 2019, the FDIC finalized a rule that established a community bank leverage ratio ("CBLR"). The CBLR (Tier 1 capital to average consolidated assets) was established at 9% for institutions under \$10 billion in assets and such institutions may elect to utilize the CBLR threshold level of capital in lieu of the generally-applicable risk-based capital requirements under Basel III. Such institutions that meet the CBLR threshold and certain other qualifying criteria will automatically be deemed to be well-capitalized. The new rule took effect on January 1, 2020.

Standards for Safety and Soundness. As required by statute, the federal banking agencies have adopted final regulations and Interagency Guidelines Establishing Standards for Safety and Soundness to implement safety and soundness standards. The guidelines set forth the safety and soundness standards that the federal banking agencies use to identify and address problems at insured depository institutions before capital becomes impaired. The guidelines address internal controls and information systems, internal audit systems, credit underwriting, loan documentation, interest rate exposure, asset growth, asset quality, earnings, compensation, fees and benefits and, more recently, safeguarding customer information. If the appropriate federal banking agency determines that an institution fails to meet any standard prescribed by the guidelines, the agency may require the institution to submit to the agency an acceptable plan to achieve compliance with the standard.

Business and Investment Activities. Under federal law, all state-chartered FDIC-insured banks, including commercial banks, have been limited in their activities as principal and in their equity investments to the type and the amount authorized for national banks, notwithstanding state law. Federal law permits certain exceptions to these limitations.

The FDIC is also authorized to permit state banks to engage in state authorized activities or investments not permissible for national banks (other than non-subsidiary equity investments) if they meet all applicable capital requirements and it is determined that such activities or investments do not pose a significant risk to the FDIC insurance fund. The FDIC has adopted regulations governing the procedures for institutions seeking approval to engage in such activities or investments. The Gramm-Leach-Bliley Act of 1999 specified that a state bank may control a subsidiary that engages in activities as principal that would only be permitted for a national bank to conduct in a "financial subsidiary," if a bank meets specified conditions and deducts its investment in the subsidiary for regulatory capital purposes.

Prompt Corrective Regulatory Action. Federal law requires, among other things, that federal bank regulatory authorities take "prompt corrective action" with respect to banks that do not meet minimum capital requirements. For these purposes, the law establishes five capital categories: well capitalized, adequately capitalized, undercapitalized, significantly undercapitalized and critically undercapitalized.

An institution is deemed to be "well capitalized" if it has a total risk-based capital ratio of 10.0% or greater, a Tier 1 risk-based capital ratio of 8.0% or greater, a leverage ratio of 5.0% or greater and a common equity Tier 1 ratio of 6.5% or greater. An institution is "adequately capitalized" if it has a total risk-based capital ratio of 8.0% or greater, a Tier 1 risk-based capital ratio of 6.0% or greater, a leverage ratio of 4.0% or greater and a common equity Tier 1 ratio of 4.5% or greater. An institution is "undercapitalized" if it has a total risk-based capital ratio of less than 8.0%, a Tier 1 risk-based capital ratio of less than 6.0%, a leverage ratio of less than 4.0% or a common equity Tier 1 ratio of less than 4.5%. An institution is deemed to be "significantly undercapitalized" if it has a total risk-based capital ratio of less than 6.0%, a Tier 1 risk-based capital ratio of less than 4.0%, a leverage ratio of less than 3.0% or a common equity Tier 1 ratio of less than 3.0%. An institution is considered to be "critically undercapitalized" if it has a ratio of tangible equity (as defined in the regulations) to total assets that is equal to or less than 2.0%.

“Undercapitalized” banks must adhere to growth, capital distribution (including dividend) and other limitations and are required to submit a capital restoration plan. A bank’s compliance with such a plan must be guaranteed by any company that controls the undercapitalized institution in an amount equal to the lesser of 5% of the institution’s total assets when deemed undercapitalized or the amount necessary to achieve the status of adequately capitalized. If an “undercapitalized” bank fails to submit an acceptable plan, it is treated as if it is “significantly undercapitalized.” “Significantly undercapitalized” banks must comply with one or more of a number of additional measures, including, but not limited to, a required sale of sufficient voting stock to become adequately capitalized, a requirement to reduce total assets, cessation of taking deposits from correspondent banks, the dismissal of directors or officers and restrictions on interest rates paid on deposits, compensation of executive officers and capital distributions by the parent holding company. “Critically undercapitalized” institutions are subject to additional measures including, subject to a narrow exception, the appointment of a receiver or conservator within 270 days after being designated “critically undercapitalized.”

At December 31, 2019, Pathfinder Bank was well-capitalized.

Transactions with Related Parties. Transactions between a bank (and, generally, its subsidiaries) and its related parties or affiliates are limited by Sections 23A and 23B of the Federal Reserve Act. An affiliate of a bank is any company or entity that controls, is controlled by or is under common control with the bank. In a holding company context, the parent bank holding company (“BHC”) and any companies which are controlled by such parent holding company are affiliates of the bank. Generally, Sections 23A and 23B of the Federal Reserve Act limit the extent to which the bank or its subsidiaries may engage in “covered transactions” with any one affiliate to 10% of such institution’s capital stock and surplus and contain an aggregate limit on all such transactions with all affiliates to an amount equal to 20% of such institution’s capital stock and surplus. The term “covered transaction” includes the making of loans, purchase of assets, issuance of a guarantee and similar transactions.

In addition, loans or other extensions of credit by the institution to the affiliate are required to be collateralized in accordance with specified requirements. The law also requires that affiliate transactions be on terms and conditions that are substantially the same, or at least as favorable to the institution, as those provided to non-affiliates.

Pathfinder Bank’s authority to extend credit to its directors, executive officers and 10% shareholders, as well as to entities controlled by such persons, is currently governed by the requirements of Sections 22(g) and 22(h) of the Federal Reserve Act and Regulation O of the Federal Reserve Board. Among other things, these provisions generally require that extensions of credit to insiders:

- be made on terms that are substantially the same as, and follow credit underwriting procedures that are not less stringent than, those prevailing for comparable transactions with unaffiliated persons and that do not involve more than the normal risk of repayment or present other unfavorable features; and
- not exceed certain limitations on the amount of credit extended to such persons, individually and in the aggregate, which limits are based, in part, on the amount of Pathfinder Bank’s capital.

In addition, extensions of credit in excess of certain limits must be approved by Pathfinder Bank’s board of directors. Extensions of credit to executive officers are subject to additional limits based on the type of extension involved.

Enforcement. The FDIC has extensive enforcement authority over insured state banks, including Pathfinder Bank. That enforcement authority includes, among other things, the ability to assess civil money penalties, issue cease and desist orders and remove directors and officers. In general, enforcement actions may be initiated in response to violations of laws and regulations and unsafe or unsound practices. The FDIC also has authority under federal law to appoint a conservator or receiver for an insured bank under certain circumstances. The FDIC is required, with certain exceptions, to appoint a receiver or conservator for an insured state non-member bank if the bank was “critically undercapitalized” on average during the calendar quarter beginning 270 days after the date on which the institution became “critically undercapitalized.”

Federal Insurance of Deposit Accounts. The Dodd-Frank Act permanently increased the maximum amount of deposit insurance for banks, savings institutions and credit unions to \$250,000 per depositor.

The FDIC assesses insured depository institutions to maintain its Deposit Insurance Fund. Under the FDIC’s risk-based assessment system, institutions deemed less risky pay lower assessments. Assessments for institutions of less than \$10 billion of assets are now based on financial measures and supervisory ratings derived from statistical modeling estimating the probability of failure of an institution’s failure within three years. That technique, effective July 1, 2016, replaced the previous system under which institutions were placed into risk categories.

The Dodd-Frank Act increased the minimum target Deposit Insurance Fund ratio from 1.15% of estimated insured deposits to 1.35% of estimated insured deposits. The FDIC was required to seek to achieve the 1.35% ratio by September 30, 2020. The FDIC indicated that the 1.35% ratio was exceeded in November 2018. Insured institutions of less than \$10 billion of assets received credits for the

portion of their assessments that contributed to the reserve ratio between 1.15% and 1.35%. The Dodd-Frank Act eliminated the 1.5% maximum fund ratio, instead leaving it to the discretion of the FDIC, and the FDIC has exercised that discretion by establishing a long-range fund ratio of 2%.

The FDIC has authority to increase insurance assessments. Any significant increase would have an adverse effect on the operating expenses and results of operations of Pathfinder Bank. Management cannot predict what assessment rates will be in the future.

Insurance of deposits may be terminated by the FDIC upon a finding that an institution has engaged in unsafe or unsound practices, is in an unsafe or unsound condition to continue operations or has violated any applicable law, regulation, rule, order or condition imposed by the FDIC. We do not currently know of any practice, condition or violation that may lead to termination of our deposit insurance.

Community Reinvestment Act. Under the CRA, a bank has a continuing and affirmative obligation, consistent with its safe and sound operation, to help meet the credit needs of its entire community, including low and moderate income neighborhoods. The CRA does not establish specific lending requirements or programs for financial institutions nor does it limit an institution's discretion to develop the types of products and services that it believes are best suited to its particular community. The CRA does require the FDIC, in connection with its examination of a bank, to assess the institution's record of meeting the credit needs of its community and to take such record into account in its evaluation of certain applications by such institution, including applications to establish or acquire branches and merger with other depository institutions. The CRA requires the FDIC to provide a written evaluation of an institution's CRA performance utilizing a four-tiered descriptive rating system. Pathfinder Bank's latest FDIC CRA rating, dated May 13, 2019, was "satisfactory."

Federal Reserve System. The Federal Reserve Board regulations require depository institutions to maintain non-interest-earning reserves against their transaction accounts (primarily negotiable order of withdrawal (NOW) and regular checking accounts). The regulations generally provide that reserves be maintained against aggregate transaction accounts as follows: a 3% reserve ratio is assessed on net transaction accounts up to and including \$127.5 million; a 10% reserve ratio is applied above \$127.5 million. The first \$16.9 million of otherwise reservable balances are exempted from the reserve requirements. The amounts are adjusted annually. Pathfinder Bank complies with the foregoing requirements.

Federal Home Loan Bank System. Pathfinder Bank is a member of the Federal Home Loan Bank System, which consists of twelve regional Federal Home Loan Banks. The Federal Home Loan Bank System provides a central credit facility primarily for member institutions as well as other entities involved in home mortgage lending. As a member of the FHLBNY, Pathfinder Bank is required to acquire and hold a specified amount of shares of capital stock in the FHLBNY. As of December 31, 2019, Pathfinder Bank was in compliance with this requirement.

Other Regulations

Interest and other charges collected or contracted for by Pathfinder Bank are subject to state usury laws and federal laws concerning interest rates. Pathfinder Bank's operations are also subject to federal laws applicable to credit transactions, such as the:

- Truth-In-Lending Act, governing disclosures of credit terms to consumer borrowers;
- Real Estate Settlement Procedures Act, requiring that borrowers for mortgage loans for one-to-four family residential real estate receive various disclosures, including good faith estimates of settlement costs, lender servicing and escrow account practices, and prohibiting certain practices that increase the cost of settlement services;
- The TILA-RESPA Integrated Disclosure Rule, commonly known as the TRID rule, which became effective on October 3, 2015. This rule amended the Truth in Lending Act and the Real Estate Settlement Procedures Act to integrate several consumer disclosures for mortgage loans;
- Home Mortgage Disclosure Act, requiring financial institutions to provide information to enable the public and public officials to determine whether a financial institution is fulfilling its obligation to help meet the housing needs of the community it serves;
- Equal Credit Opportunity Act, prohibiting discrimination on the basis of race, creed or other prohibited factors in extending credit;
- Fair Credit Reporting Act, governing the use and provision of information to credit reporting agencies;
- Fair Debt Collection Act, governing the manner in which consumer debts may be collected by collection agencies;
- Truth in Savings Act;
- Rules and regulations of the various federal agencies charged with the responsibility of implementing such federal laws;

- Right to Financial Privacy Act, which imposes a duty to maintain confidentiality of consumer financial records and prescribes procedures for complying with administrative subpoenas of financial records;
- Electronic Funds Transfer Act and Regulation E promulgated thereunder, which govern automatic deposits to and withdrawals from deposit accounts and customers' rights and liabilities arising from the use of automated teller machines and other electronic banking services;
- Check Clearing for the 21st Century Act (also known as "Check 21"), which gives "substitute checks," such as digital check images and copies made from that image, the same legal standing as the original paper check;
- USA PATRIOT Act, which requires banks operating to, among other things, establish broadened anti-money laundering compliance programs, due diligence policies and controls to ensure the detection and reporting of money laundering. Such required compliance programs are intended to supplement existing compliance requirements, also applicable to financial institutions, under the Bank Secrecy Act and the Office of Foreign Assets Control regulations; and
- Gramm-Leach-Bliley Act, which places limitations on the sharing of consumer financial information by financial institutions with unaffiliated third parties. Specifically, the Gramm-Leach-Bliley Act requires all financial institutions offering financial products or services to retail customers to provide such customers with the financial institution's privacy policy and provide such customers the opportunity to "opt out" of the sharing of certain personal financial information with unaffiliated third parties.

Holding Company Regulation

The Company, as a BHC, is subject to examination, regulation, and periodic reporting under the Bank Holding Company Act of 1956, as amended, as administered by the Federal Reserve Board. The Company is required to obtain the prior approval of the Federal Reserve Board to acquire all, or substantially all, of the assets of any bank or bank holding company. Prior Federal Reserve Board approval would be required for the Company to acquire direct or indirect ownership or control of any voting securities of any bank or BHC if it would, directly or indirectly, own or control more than 5% of any class of voting shares of the bank or bank holding company.

A BHC is generally prohibited from engaging in, or acquiring, direct or indirect control of more than 5% of the voting securities of any company engaged in non-banking activities. One of the principal exceptions to this prohibition is for activities found by the Federal Reserve Board to be so closely related to banking or managing or controlling banks as to be a proper incident thereto. Some of the principal activities that the Federal Reserve Board has determined by regulation to be closely related to banking are: (i) making or servicing loans; (ii) performing certain data processing services; (iii) providing securities brokerage services; (iv) acting as fiduciary, investment or financial advisor; (v) leasing personal or real property under certain conditions; (vi) making investments in corporations or projects designed primarily to promote community welfare; and (vii) acquiring a savings association.

The Gramm-Leach-Bliley Act of 1999 authorizes a BHC that meets specified conditions, including depository institutions subsidiaries that are "well capitalized" and "well managed," to opt to become a "financial holding company." A "financial holding company" may engage in a broader array of financial activities than permitted a typical bank holding company. Such activities can include insurance underwriting and investment banking. The Company has elected to be a "financial holding company."

The Dodd-Frank Act required the Federal Reserve Board to promulgate consolidated capital requirements for bank and savings and loan holding companies that are no less stringent, both quantitatively and in terms of components of capital, than those applicable to their subsidiary depository institutions. Instruments such as cumulative preferred stock and trust-preferred securities, which are currently includable as Tier 1 capital, by bank holding companies within certain limits are no longer includable as Tier 1 capital, subject to certain grandfathering. The previously discussed final rule regarding regulatory capital requirements implements the Dodd-Frank Act's directives as to holding company capital requirements.

In December 2014, legislation was passed by Congress that requires the Federal Reserve to revise its "Small Bank Holding Company Policy Statement" to exempt bank and savings and loan holding companies with less than \$1.0 billion of consolidated assets from the consolidated capital requirements, provided that such companies meet certain other conditions such as not engaging in significant nonbanking activities. The Federal Reserve maintains authority to apply the consolidated capital requirements to any bank or savings and loan holding company as warranted for supervisory purposes. Regulations implementing the exemption were effective in May 2015.

On August 28, 2018, pursuant to EGRRCPA, the FRB issued an interim final rule revising the Policy Statement increasing the consolidated asset limit to \$3 billion. Under the Policy Statement, a BHC that meets certain Qualitative Requirements:

- is exempt from the FRB's risk-based capital and leverage rules (Appendixes A and D of Regulation Y); and
- may use debt to finance up to 75% of the purchase price of an acquisition allowing a BHC to have a debt-to-equity ratio of up to 3:1.

The Policy Statement now applies to a BHC with consolidated assets of less than \$3 billion that meets the following Qualitative Requirements: (i) it is not engaged in significant non-banking activities either directly or through a non-bank subsidiary; (ii) it does not conduct significant off-balance sheet activities, including securitizations or asset management or administration, either directly or through a non-bank subsidiary; or (iii) it does not have a material amount of debt or equity securities outstanding (other than trust preferred securities) that are registered with the SEC. BHCs that meet these Qualitative Requirements are determined to be "Qualifying BHCs". A Qualifying BHC is exempt from the FRB's risk-based capital and leverage rules. As a consequence, it does not have to comply with the Basel III Capital Adequacy rules. Each subsidiary bank of a Qualifying BHC must comply with the Basel III Capital Adequacy rules (or as of January 1, 2020 the community bank leverage ratio) and must be well-capitalized. If any subsidiary bank is not, the FRB expects it to become well-capitalized within a brief period of time. This Policy Statement applies to the Company.

A BHC is generally required to give the Federal Reserve Board prior written notice of any purchase or redemption of then outstanding equity securities if the gross consideration for the purchase or redemption, when combined with the net consideration paid for all such purchases or redemptions during the preceding 12 months, is equal to 10% or more of the company's consolidated net worth. The Federal Reserve Board may disapprove such a purchase or redemption if it determines that the proposal would constitute an unsafe and unsound practice, or would violate any law, regulation, Federal Reserve Board order or directive, or any condition imposed by, or written agreement with, the Federal Reserve Board. The Federal Reserve Board has adopted an exception to that approval requirement for well-capitalized bank holding companies that meet certain other conditions. The Federal Reserve Board has issued guidance which requires consultation with the Federal Reserve Board prior to a redemption or repurchase in certain circumstances.

The Federal Reserve Board has issued a policy statement regarding the payment of dividends by BHCs. In general, the Federal Reserve Board's policies provide that dividends should be paid only out of current earnings and only if the prospective rate of earnings retention by the BHC appears consistent with the organization's capital needs, asset quality and overall financial condition. The Federal Reserve Board's policies also require that a BHC serve as a source of financial strength to its subsidiary banks by using available resources to provide capital funds during periods of financial stress or adversity and by maintaining the financial flexibility and capital-raising capacity to obtain additional resources for assisting its subsidiary banks where necessary. The Dodd-Frank Act codified the source of strength policy. Under the prompt corrective action laws, the ability of a BHC to pay dividends may be restricted if a subsidiary bank becomes undercapitalized. These regulatory policies could affect the ability of the Company to pay dividends or otherwise engage in capital distributions.

The Company and the Bank will be affected by the monetary and fiscal policies of various agencies of the United States Government, including the Federal Reserve System. In view of changing conditions in the national economy and in the money markets, it is impossible for management to accurately predict future changes in monetary policy or the effect of such changes on the business or financial condition of the Company or the Bank.

The Company's status as a registered BHC under the Bank Holding Company Act will not exempt it from certain federal and state laws and regulations applicable to corporations generally, including, without limitation, certain provisions of the federal securities laws.

Federal Securities Laws

The Company's common stock is registered with the Securities and Exchange Commission under the Securities Exchange Act of 1934. We are subject to the information, proxy solicitation, insider trading restrictions and other requirements under the Securities Exchange Act of 1934.

The registration under the Securities Act of 1933 of the Company's shares of common stock issued in the Company's initial stock offering does not cover the resale of those shares. Shares of common stock purchased by persons who are not our affiliates may be resold without registration. Shares purchased by our affiliates are subject to the resale restrictions of Rule 144 under the Securities Act of 1933. If we meet the current public information requirements of Rule 144 under the Securities Act of 1933, each affiliate of ours that complies with the other conditions of Rule 144, including those that require the affiliate's sale to be aggregated with those of other persons, would be able to sell in the public market, without registration, a number of shares not to exceed, in any three-month period, the greater of 1% of our outstanding shares, or the average weekly volume of trading in the shares during the preceding four calendar weeks. In the future, we may permit affiliates to have their shares registered for sale under the Securities Act of 1933.

Sarbanes-Oxley Act of 2002

The Sarbanes-Oxley Act of 2002 addresses, among other issues, corporate governance, auditing and accounting, executive compensation, and enhanced and timely disclosure of corporate information. We have prepared policies, procedures and systems designed to ensure compliance with these regulations.

FEDERAL AND STATE TAXATION

Deferred Income Tax Assets and Liabilities. Deferred income tax assets and liabilities are determined using the liability method. Under this method, the net deferred tax asset or liability is recognized for the future tax consequences. This is attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases as well as net operating and capital loss carry forwards. Deferred tax assets and liabilities are measured using enacted tax rates applied to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income tax expense in the period that includes the enactment date. If current available evidence about the future raises doubt about the likelihood of a deferred tax asset being realized, a valuation allowance is established. The judgment about the level of future taxable income, including that which is considered capital, is inherently subjective and is reviewed on a continual basis as regulatory and business factors change. Effective in January 2018, the Company adopted a modification methodology, made available following changes to the New York State tax code, effecting how the Company's state income tax liability is computed. Under this adopted methodology, it is unlikely that the Company will pay income taxes to New York State in future periods and it is therefore probable that the Company's deferred tax assets related to New York State income taxes are unlikely to further reduce the Company's state income tax rate in the future. Accordingly, in the quarter ended March 31, 2019, the Company established, through a charge to earnings, a valuation allowance in the amount of \$136,000 in order to reserve against deferred tax assets related to New York State income taxes. This valuation allowance against the value of those deferred tax assets was established to reduce the net deferred tax asset related to New York income taxes to \$-0-. At December 31, 2019, the Company had a valuation allowance of \$136,000 established against the future projected benefits of deferred tax assets related to New York State income tax obligations. There were no valuation allowances against deferred tax assets at December 31, 2018.

Federal Taxation

General. The Bank and the Company are subject to federal income taxation in the same general manner as other corporations, with some exceptions discussed below. The following discussion of federal taxation is intended only to summarize certain pertinent federal income tax matters and is not a comprehensive description of the tax rules applicable to the Company or the Bank.

The Company's federal tax returns are statutorily subject to potential audit for the years 2016 through 2019. No federal income tax returns are under audit as of the date of this report.

Method of Accounting. For federal income tax purposes, the Company currently reports its income and expenses on the accrual method of accounting and uses a tax year ending December 31 for filing its federal and state income tax returns.

Bad Debt Reserves. Prior to 1996, Pathfinder Bank was permitted to establish a reserve for bad debts and to make annual additions to the reserve. These additions could, within specified formula limits, be deducted in arriving at our taxable income. As a result of tax law changes in 1996, Pathfinder Bank was required to use the specific charge-off method in computing its bad debt deduction beginning with its 1996 federal tax return. Savings institutions were required to recapture any excess reserves over those established as of December 31, 1987 (base year reserve). At December 31, 2019, Pathfinder Bank had no reserves subject to recapture in excess of its base year reserves. The Bank continues to be required to use the specific charge-off method to account for tax bad debt deductions.

Taxable Distributions and Recapture. Prior to 1996, bad debt reserves created prior to 1988 were subject to recapture into taxable income if Pathfinder Bank failed to meet certain thrift asset and definitional tests or made certain distributions. Tax law changes in 1996 eliminated thrift-related recapture rules. However, under current law, pre-1988 tax bad debt reserves remain subject to recapture if Pathfinder Bank makes certain non-dividend distributions, repurchases any of its common stock, pays dividends in excess of earnings and profits, or fails to qualify as a "bank" for tax purposes. At December 31, 2019 our total federal pre-base year bad debt reserve was approximately \$1.3 million.

Net Operating Loss Carryovers. Federal tax law allows net operating losses to be carried forward indefinitely with the net operating loss deduction limited to 80% of taxable income in any carryforward year.

Corporate Dividends Received Deduction. The Company may exclude from its federal taxable income 100% of dividends received from Pathfinder Bank as a wholly-owned subsidiary by filing consolidated tax returns. The corporate dividends received deduction is

65% when the corporation receiving the dividend owns at least 20% of the stock of the distributing corporation. The dividends-received deduction is 50% when the corporation receiving the dividend owns less than 20% of the distributing corporation.

Interest Expense. Federal tax law limits a taxpayer's annual deduction of business interest expense to the sum of (i) business interest income and (ii) 30% of "adjusted taxable income", defined as a business's taxable income without taking into account business interest income or expense, net operating losses, and, for 2018 through 2021, depreciation, amortization and depletion. Because we generate significant amounts of net interest income, we do not expect to be impacted by this limitation.

Employee Compensation. A publicly held corporation is not permitted to deduct compensation in excess of \$1 million per year paid to certain employees. Federal tax law eliminates certain exceptions to the \$1 million limit applicable under prior law related to performance-based compensation, such as equity grants and cash bonuses that are paid only on the attainment of performance goals. Based on our current compensation plans, we do not expect to be impacted by this limitation.

Business Asset Expensing. Federal tax law allows taxpayers to immediately expense the entire cost of certain depreciable tangible property and real property improvements acquired and placed in service after September 27, 2017 and before January 1, 2023 (with an additional year for certain property). This 100% bonus depreciation is phased out proportionately for property placed in service on or after January 1, 2023 and before January 1, 2027 (with an additional year for certain property).

State Taxation

New York State franchise tax is imposed in an amount equal to the greater of 6.5% of Business Income, 0.05% of average Business Capital, or a fixed dollar amount based on New York sourced gross receipts. Various Business Income subtraction modifications are available to qualified banks based on its qualified loan portfolio. Commencing January 1, 2018, the Company changed its subtraction modification from that of a captive real estate investment trust (REIT) to one based on interest income from qualifying loans. This change follows the laws enacted by New York State effective January 1, 2015. As a result, beginning in 2018 the Company is subject to a fixed dollar amount and the current effective income tax rate in New York State was reduced to close to \$0. It is anticipated that the Company's New York State effective income tax will remain substantially at 0.0% for future periods under the current law.

As a Maryland business corporation, the Company is required to file an annual report with, and pay franchise taxes to, the State of Maryland.

ITEM 1A: RISK FACTORS

Not required of a smaller reporting company.

ITEM 1B: UNRESOLVED STAFF COMMENTS

None.

ITEM 2: PROPERTIES

The Company has seven offices located in Oswego County, three offices in Onondaga County and one limited purpose office in Oneida County. Management believes that the Bank's facilities are adequate for the business conducted. The following table sets forth certain information concerning the main office and each branch office of the Bank at December 31, 2019. The aggregate net book value of the Bank's premises and equipment was \$22.7 million at December 31, 2019. For additional information regarding the Bank's properties, see Notes 8 and 18 to the consolidated financial statements.

Location	Opening Date	Owned/Leased
Main Office 214 West First Street Oswego, New York 13126	1874	Owned
Plaza Branch Route 104, Ames Plaza Oswego, New York 13126	1989	Owned ⁽¹⁾
Mexico Branch Norman & Main Streets Mexico, New York 13114	1978	Owned
Oswego East Branch 34 East Bridge Street Oswego, New York 13126	1994	Owned
Lacona Branch 1897 Harwood Drive Lacona, New York 13083	2002	Owned
Fulton Branch 5 West First Street South Fulton, New York 13069	2003	Owned ⁽²⁾
Central Square Branch 3025 East Ave Central Square, New York 13036	2005	Owned
Cicero Branch 6194 State Route 31 Cicero, New York 13039	2011	Owned
Syracuse Pike Block Branch 109 West Fayette Street Syracuse, New York 13202	2014	Leased ⁽³⁾
Clay Branch 3775 State Route 31 Liverpool, NY 13090	2018	Leased ⁽⁴⁾
Utica Loan Production Office 258 Genesee Street Utica, New York 13502	2017	Leased ⁽⁵⁾

(1) The building is owned; the underlying land is leased with an annual rent of \$35,000.

(2) The building is owned; the underlying land is leased with an annual rent of \$37,000.

(3) The premises are leased with an annual rent of \$90,000.

(4) The premises are leased with an annual rent of \$70,000.

(5) The premises are leased with an annual rent of \$16,000.

ITEM 3: LEGAL PROCEEDINGS

There are various claims and lawsuits to which the Company is periodically involved that are incidental to the Company's business, most notably foreclosures. In the opinion of management, such claims and lawsuits in the aggregate are not expected to have a material adverse impact on the Company's consolidated financial condition and results of operations at December 31, 2019.

ITEM 4: MINE SAFETY DISCLOSURE

Not applicable.

PART II

ITEM 5: MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The Company's common stock trades on the NASDAQ Capital Market under the symbol "PBHC."

There were 355 shareholders of record (excluding the number of persons or entities holding stock in street name through various brokerage firms) as of March 20, 2020. The following table sets forth the high and low closing bid prices and cash dividends paid per share of common stock for the periods indicated.

Quarter Ended:	Price per share		
	High	Low	Dividend Paid
December 31, 2019	\$ 13.95	\$ 12.57	\$ 0.0600
September 30, 2019	\$ 15.56	\$ 12.71	\$ 0.0600
June 30, 2019	\$ 16.25	\$ 13.10	\$ 0.0600
March 31, 2019	\$ 15.00	\$ 12.57	\$ 0.0600
December 31, 2018	\$ 15.66	\$ 13.46	\$ 0.0600
September 30, 2018	\$ 15.97	\$ 15.03	\$ 0.0600
June 30, 2018	\$ 16.20	\$ 15.04	\$ 0.0600
March 31, 2018	\$ 15.86	\$ 15.21	\$ 0.0600

The Company did not repurchase any shares of its common stock during the fourth quarter of 2019.

Equity Compensation Plan Information

The following table provides information as of December 31, 2019 with respect to shares of common stock that may be issued under the Company's existing equity compensation plans.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans
Equity compensation plans approved by security holders	302,651	\$ 10.51	51,141
Equity compensation plans not approved by stockholders	N/A	N/A	N/A

Dividends and Dividend History

The Company (and its predecessor) has historically paid regular quarterly cash dividends on its common stock. The board of directors presently intends to continue the payment of regular quarterly cash dividends, subject to the need for those funds for debt service and other purposes. Payment of dividends on the common stock is subject to determination and declaration by the board of directors and will depend upon a number of factors, including capital requirements, regulatory limitations on the payment of dividends, Pathfinder Bank and its subsidiaries' results of operations and financial condition, tax considerations, and general economic conditions. More details are included within the section titled Regulation and Supervision.

ITEM 6: SELECTED FINANCIAL DATA

The following selected consolidated financial data sets forth certain financial highlights of the Company and should be read in conjunction with the consolidated financial statements and related notes, and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Annual Report on Form 10-K.

<i>(In thousands, except per share amounts)</i>	For the years ended December 31,				
	2019	2018	2017	2016	2015
Year End					
Total assets	\$ 1,093,807	\$ 933,115	\$ 881,257	\$ 749,034	\$ 623,254
Investment securities available-for-sale	111,134	177,664	171,138	141,955	98,942
Investment securities held-to-maturity	122,988	53,908	66,196	54,645	44,297
Loans receivable, net	772,782	612,964	573,705	485,900	424,732
Deposits	881,893	727,060	723,603	610,983	490,315
Borrowings and subordinated loans	108,253	133,628	88,947	73,972	56,291
Shareholders' equity	90,669	64,459	62,144	58,361	71,229
For the Year					
Total interest income	\$ 41,758	\$ 34,810	\$ 29,413	\$ 24,093	\$ 21,424
Total interest expense	13,528	9,044	6,290	3,804	2,657
Net interest income	28,230	25,766	23,123	20,289	18,767
Provision for loan losses	1,966	1,497	1,769	953	1,349
Net interest income after provision for loan losses	26,264	24,269	21,354	19,336	17,418
Total noninterest income	4,917	3,835	4,085	4,072	4,062
Total noninterest expense	25,730	23,549	21,094	18,999	17,477
Income before income taxes	5,451	4,555	4,345	4,409	4,003
Income tax expense	1,165	546	922	1,111	1,071
Net income (loss) attributable to noncontrolling interest	10	(22)	(68)	26	43
Net income attributable to Pathfinder Bancorp, Inc.	\$ 4,276	\$ 4,031	\$ 3,491	\$ 3,272	\$ 2,889
Convertible preferred stock dividends	208	-	-	-	-
Warrant dividends	23	-	-	-	-
Undistributed earnings allocated to participating securities	467	-	-	-	-
Net income available to common shareholders	\$ 3,578	\$ 4,031	\$ 3,491	\$ 3,272	\$ 2,889
Per Share					
Income per share - basic	\$ 0.80	\$ 0.97	\$ 0.86	\$ 0.79	\$ 0.67
Income per share - diluted	0.80	0.94	0.83	0.78	0.66
Book value per common share	15.94	14.72	14.44	13.67	13.28
Tangible book value per common share	14.95	13.65	13.34	12.55	12.19
Cash dividends declared	0.240	0.240	0.215	0.200	0.160
Performance Ratios					
Return on average assets	0.43 %	0.45 %	0.42 %	0.48 %	0.48 %
Return on average equity	5.34	6.33	5.69	5.35	4.08
Average equity to average assets	7.97	7.09	7.47	8.97	11.76
Shareholders' Equity to total assets at end of year	8.27	6.88	7.01	7.73	11.36
Net interest rate spread	2.73	2.85	2.83	3.03	3.21
Net interest margin	2.98	3.02	2.97	3.14	3.31
Average interest-earning assets to average interest-bearing liabilities	116.84	116.52	116.05	118.35	121.73
Noninterest expense to average assets	2.56	2.62	2.57	2.79	2.90
Efficiency ratio (a)	78.75	79.04	79.06	79.80	78.12
Dividend payout ratio	30.21	24.93	25.21	25.18	25.22
Return on average common equity	6.02	6.33	5.69	5.35	5.00

	For the years ended December 31,				
	2019	2018	2017	2016	2015
Asset Quality Ratios					
Nonperforming loans to period end loans	0.67 %	0.35 %	0.84 %	0.98 %	1.24 %
Nonperforming assets to total assets	0.49	0.36	0.61	0.72	0.94
Allowance for loan losses to period end loans	1.11	1.18	1.23	1.27	1.33
Allowance for loan losses to nonperforming loans	165.25	340.13	145.61	129.85	107.30
Regulatory Capital Ratios (Bank Only)					
Total capital (to risk-weighted assets)	12.28 %	13.69 %	13.97 %	14.79 %	16.22 %
Tier 1 capital (to risk-weighted assets)	11.16	12.49	12.72	13.54	14.95
Tier 1 capital (to adjusted assets)	8.20	8.31	8.16	9.06	10.00
Tier 1 Common Equity (to risk-weighted assets)	11.16	12.49	12.72	13.54	14.95
Number of:					
Banking offices	11	11	10	9	9
Fulltime equivalent employees	157	160	140	133	124

- (a) The efficiency ratio is calculated as noninterest expense divided by the sum of net interest income and noninterest income, excluding net gains on sales, redemptions and impairment of investment securities and net gains (losses) on sales of loans and foreclosed real estate.

See table below for a reconciliation of the non-GAAP financial measures.

NON-GAAP FINANCIAL INFORMATION

Regulation G, a rule adopted by the Securities and Exchange Commission (SEC), applies to certain SEC filings, including earnings releases, made by registered companies that contain “non-GAAP financial measures.” GAAP is generally accepted accounting principles in the United States of America. Under Regulation G, companies making public disclosures containing non-GAAP financial measures must also disclose, along with each non-GAAP financial measure, certain additional information, including a reconciliation of the non-GAAP financial measure to the closest comparable GAAP financial measure (if a comparable GAAP measure exists) and a statement of the Company’s reasons for utilizing the non-GAAP financial measure as part of its financial disclosures. The SEC has exempted from the definition of “non-GAAP financial measures” certain commonly used financial measures that are not based on GAAP. When these exempted measures are included in public disclosures, supplemental information is not required. Financial institutions, like the Company and its subsidiary bank, are subject to an array of bank regulatory capital measures that are financial in nature but are not based on GAAP and are not easily reconcilable to the closest comparable GAAP financial measures, even in those cases where a comparable measure exists. The Company follows industry practice in disclosing its financial condition under these various regulatory capital measures, including period-end regulatory capital ratios for its subsidiary bank, in its periodic reports filed with the SEC, and does so without compliance with Regulation G, on the widely-shared assumption that the SEC regards such non-GAAP measures to be exempt from Regulation G. The Company uses in this regulatory filing additional non-GAAP financial measures that are commonly utilized by financial institutions and have not been specifically exempted by the SEC from Regulation G. The Company provides, as supplemental information, such non-GAAP measures included in this document as described immediately below.

For the years ended December 31,

<i>(In thousands, except per share amounts)</i>	2019	2018	2017	2016	2015
Per Share					
Book value per common share					
Total Pathfinder Bancorp, Inc. shareholders' equity (book value) (GAAP)	\$ 90,434	\$ 64,221	\$ 61,811	\$ 57,929	\$ 70,805
Preferred stock	15,370	-	-	-	13,000
Total shares outstanding	4,709	4,362	4,280	4,237	4,354
Book value per common share	\$ 15.94	\$ 14.72	\$ 14.44	\$ 13.67	\$ 13.28
Total common equity					
Total equity (GAAP)	\$ 75,064	\$ 64,221	\$ 61,811	\$ 57,929	\$ 57,805
Goodwill	4,536	4,536	4,536	4,536	4,536
Intangible assets	149	165	182	198	214
Common equity	\$ 70,379	\$ 59,520	\$ 57,093	\$ 53,195	\$ 53,055
Tangible book value per common share					
Common equity	\$ 70,379	\$ 59,520	\$ 57,093	\$ 53,195	\$ 53,055
Total shares outstanding	4,709	4,362	4,280	4,237	4,354
Tangible book value per common share	\$ 14.95	\$ 13.65	\$ 13.34	\$ 12.55	\$ 12.19
Performance Ratios					
Efficiency ratio					
Operating expenses (numerator)	\$ 25,730	\$ 23,549	\$ 21,094	\$ 18,999	\$ 17,477
Net interest income	28,230	25,766	23,123	20,289	18,767
Noninterest income	4,917	3,835	4,085	4,072	4,062
Less: Gain/(Loss) on the sale/redemption of investment securities/loans/foreclosed real estate	393	(132)	526	554	456
Less : Loss on marketable equity securities	81	(62)	-	-	-
Denominator	\$ 32,673	\$ 29,795	\$ 26,682	\$ 23,807	\$ 22,373
Efficiency ratio	78.75 %	79.04 %	79.06 %	79.80 %	78.12 %
Dividend payout ratio					
Dividends declared (numerator)	\$ 1,081	\$ 1,005	\$ 880	\$ 820	\$ 696
Net income available to common shareholders (denominator)	3,578	4,031	3,491	3,256	2,759
Dividend payout ratio	30.21 %	24.93 %	25.21 %	25.18 %	25.22 %
Return on average common equity					
Net income attributable to Pathfinder Bancorp Inc. (GAAP) (numerator)	\$ 4,276	\$ 4,031	\$ 3,491	\$ 3,272	\$ 2,889
Average equity	80,136	63,667	61,383	61,102	70,819
Average preferred stock	9,074	-	-	-	13,000
Denominator	\$ 71,062	\$ 63,667	\$ 61,383	\$ 61,102	\$ 57,819
Return on average common equity	6.02 %	6.33 %	5.69 %	5.35 %	5.00 %

For the years ended December 31,

	2019	2018	2017	2016	2015
Regulatory Capital Ratios (Bank Only)					
Total capital (to risk-weighted assets)					
Total equity (GAAP)	\$ 88,138	\$ 74,530	\$ 71,535	\$ 66,846	\$ 64,097
Goodwill	(4,536)	(4,536)	(4,536)	(4,536)	(4,536)
Intangible assets	(149)	(165)	(146)	(119)	(86)
Addback: Accumulated other comprehensive income	2,971	6,042	4,261	3,812	2,563
Total Tier 1 Capital	\$ 86,424	\$ 75,871	\$ 71,114	\$ 66,003	\$ 62,038
Allowance for loan and lease losses	8,669	7,306	6,991	6,095	5,193
Unrealized Gain on available-for-sale securities	-	-	-	-	55
Total Tier 2 Capital	\$ 8,669	\$ 7,306	\$ 6,991	\$ 6,095	\$ 5,248
Total Tier 1 plus Tier 2 Capital (numerator)	\$ 95,093	\$ 83,177	\$ 78,105	\$ 72,098	\$ 67,286
Risk-weighted assets (denominator)	774,177	607,414	559,161	487,448	414,842
Total core capital to risk-weighted assets	12.28 %	13.69 %	13.97 %	14.79 %	16.22 %

Tier 1 capital (to risk-weighted assets)					
Total Tier 1 capital (numerator)	\$ 86,424	\$ 75,871	\$ 71,114	\$ 66,003	\$ 62,038
Risk-weighted assets (denominator)	774,177	607,414	559,161	487,448	414,842
Total capital to risk-weighted assets	11.16 %	12.49 %	12.72 %	13.54 %	14.95 %

Tier 1 capital (to adjusted assets)					
Total Tier 1 capital (numerator)	\$ 86,424	\$ 75,871	\$ 71,114	\$ 66,003	\$ 62,038
Total average assets	1,059,060	917,740	876,263	733,512	625,018
Goodwill	(4,536)	(4,536)	(4,536)	(4,536)	(4,536)
Intangible assets	(149)	(165)	(146)	(119)	(86)
Adjusted assets (denominator)	\$1,054,375	\$ 913,039	\$ 871,581	\$ 728,857	\$ 620,396
Total capital to adjusted assets	8.20 %	8.31 %	8.16 %	9.06 %	10.00 %

Tier 1 Common Equity (to risk-weighted assets)					
Total Tier 1 capital (numerator)	\$ 86,424	\$ 75,871	\$ 71,114	\$ 66,003	\$ 62,038
Risk-weighted assets (denominator)	774,177	607,414	559,161	487,448	414,842
Total Tier 1 Common Equity to risk-weighted assets	11.16 %	12.49 %	12.72 %	13.54 %	14.95 %

ITEM 7: MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

INTRODUCTION

Throughout Management's Discussion and Analysis ("MD&A") the term, the "Company", refers to the consolidated entity of Pathfinder Bancorp, Inc. Pathfinder Bank (the "Bank") and Pathfinder Statutory Trust II are wholly owned subsidiaries of Pathfinder Bancorp, Inc.; however, Pathfinder Statutory Trust II is not consolidated for reporting purposes (see Note 13 of the consolidated financial statements). Pathfinder Risk Management Company, Inc., and Whispering Oaks Development Corp. are wholly owned subsidiaries of Pathfinder Bank.

On October 16, 2014, Pathfinder Bancorp, MHC converted from the mutual to stock form of organization (the "Conversion"). In connection with the Conversion, the Company sold 2,636,053 shares of common stock to depositors at \$10.00 per share. Shareholders of Pathfinder Bancorp, Inc., a federal corporation ("Pathfinder-Federal"), the Company's predecessor, received 1.6472 shares of the Company's common stock for each share of Pathfinder-Federal common stock they owned immediately prior to completion of the transaction. Following the completion of the Conversion, Pathfinder-Federal was succeeded by the Company and Pathfinder Bancorp, MHC ceased to exist. The Company had 4,709,238 and 4,362,328 shares outstanding at December 31, 2019 and December 31, 2018, respectively.

On June 1, 2016, Pathfinder Bank, a savings bank chartered by the NYSDFS, merged into Pathfinder Commercial Bank, a limited purpose commercial bank also chartered by the NYSDFS. Prior to the merger, Pathfinder Bank owned 100% of Pathfinder Commercial Bank. On that same date, NYSDFS expanded the powers that it had previously granted to Pathfinder Commercial Bank and chartered Pathfinder Commercial Bank as a fully-empowered commercial bank. Simultaneously, the entity that had operated as "Pathfinder Commercial Bank" changed its name to "Pathfinder Bank." As a result of this charter conversion and accompanying name change, the entity now known as "Pathfinder Bank" is a commercial bank with the full range of powers granted under a commercial banking charter in New York State. The merger, which had no effect on the Company's results of operations, converted the consolidated Bank from a savings bank to a commercial bank and was completed in order to better align the Bank's organization certificate with its long-term strategic focus.

Since the Conversion, we have substantially transformed our business activities from those of a traditional savings bank to those of a commercial bank. This transformation of activities has significantly affected the overall composition of our balance sheet. While not reducing our role as a leading originator of one-to-four family residential real estate loans within our marketplace, which had been our primary focus as a savings bank, we have substantially grown our commercial business and commercial real estate loan portfolios since the Conversion. As a commercial bank, we have been able to offer customized products and services to meet individual commercial customer needs and thereby more definitively differentiate our services from those offered by our competitors. As a result, we have been able to create a substantially more diversified loan portfolio than the one that was in place before the completion of the Conversion. When compared to the Bank's loan portfolio composition prior to the Conversion, it is our view that our current asset portfolio (1) significantly improves upon the distribution of credit risk across a broader range of borrowers, industries and collateral types, and (2) is more likely to generate consistent net interest margins in a broader range of interest rate environments due to the portfolio's increased percentage of shorter-term and/or adjustable-rate assets. In a concurrent effort, the Bank has been able to fund the majority of the high level of growth in our loan portfolios primarily with deposits gathered from our local community. We believe that we have gathered these deposits at a reasonable overall cost in terms of deposit interest rates, as well as at a reasonable overall level of related infrastructure and customer support service expenses.

On May 8, 2019, the Company entered into a Securities Purchase Agreement (the "Securities Purchase Agreement") with Castle Creek Capital Partners VII, L.P. ("Castle Creek"), pursuant to which the Company sold: (i) 37,700 shares of the Company's common stock, par value \$0.01 per share, at a purchase price of \$14.25 per share (the "Common Stock"); (ii) 1,155,283 shares of a new series of preferred stock, Series B convertible perpetual preferred stock, par value \$0.01 per share, at a purchase price of \$14.25 per share (the "Series B Preferred Stock"); and (iii) a warrant, with an approximate fair value of \$373,000, to purchase 125,000 shares of Common Stock at an exercise price initially equal to \$14.25 per share (the "Warrant"), in a private placement transaction (the "Private Placement") for gross proceeds of approximately \$17.0 million. The Securities Purchase Agreement contains significant representations, warranties, and covenants of the Company and Castle Creek.

The Company also entered into subscription agreements dated as of May 8, 2019 (the "Subscription Agreements") with certain directors and executive officers of the Company as well as other accredited investors. Pursuant to the Subscription Agreements, the investors purchased an aggregate of 269,277 shares of Common Stock at \$14.25 per share for gross proceeds of approximately \$3.8 million, before payment of placement fees and related costs and expenses. The Subscription Agreements contain representations, warranties, and covenants of the purchasers and the Company that are customary in private placement transactions.

In total, therefore, the Company issued 306,977 shares of Common Stock, 1,155,283 shares of Series B Preferred Stock and the Warrant at the conclusion of the Private Placement. The transaction raised \$20.8 million in gross proceeds and the final net cash received from the Private Placement, after all issuance expenses, including placement fees and all other issuance/due diligence costs of

\$927,000 and \$342,000, respectively, was \$19.6 million. The fair value of the Warrant at the time of issuance was \$373,000. Following the Private Placement, the Company used the net cash received from the transaction to strengthen the Company's general capital and liquidity positions, fund growth within our marketplace, purchase certain loan assets, and increase the regulatory capital position of the Bank. The Company will continue to use the additional capital raised through the Private Placement primarily to support the realization of continued growth opportunities within our marketplace and, to a lesser extent, for general corporate purposes.

On May 8, 2019, the Company filed Articles Supplementary with the Maryland Department of Assessments and Taxation to issue 1,155,283 shares of Series B Preferred Stock to Castle Creek. Each share of the Series B Preferred Stock will be convertible on a one-for-one basis into either (i) Common Stock under certain circumstances or (ii) non-voting common stock, par value \$0.01 per share (which will also be convertible into Common Stock), subject to approval of the creation of such class of non-voting common stock by the Company's stockholders.

Pursuant to Nasdaq rules, Castle Creek may not convert the Series B Preferred Stock or, in the future, the non-voting common stock into Common Stock, or exercise the Warrant if doing so would cause Castle Creek, when combined with the purchases of certain directors and executive officers of the Company as well as other accredited investors in the Private Placement, to own more than 19.99% of the Common Stock outstanding immediately prior to the execution of the Securities Purchase Agreement (the "Exchange Cap"). The Company must request stockholder approval to eliminate the Exchange Cap no later than at the 2021 annual meeting of Company shareholders. In addition, Castle Creek will need the approval or non-objection of the Board of Governors of the Federal Reserve System and the New York State Department of Financial Services if it seeks to increase its ownership of shares of Common Stock in excess of 9.9% of the outstanding shares of Common Stock.

Holders of the Series B Preferred Stock will be entitled to receive dividends if declared by the Company's board of directors, in the same per share amount as paid on the Common Stock. No dividends would be payable on the Common Stock unless a dividend identical to that paid on the Common Stock is payable at the same time on the Series B Preferred Stock. The Series B Preferred Stock will rank, as to payments of dividends and distribution of assets upon dissolution, liquidation or winding up of the Company, *pari passu* with the Common Stock pro rata. Holders of Series B Preferred Stock will have no voting rights except as may be required by law. The Series B Preferred Stock will not be redeemable by either the Company or by the holder.

As discussed above, pursuant to the Securities Purchase Agreement, on May 8, 2019, the Company issued a Warrant to Castle Creek to purchase 125,000 shares of Common Stock at an exercise price equal to \$14.25 per share. At the same time, the Company entered into a Warrant Agreement with Castle Creek, to, among other things, authorize and establish the terms of the Warrant. The Warrant is exercisable at any time after May 8, 2019, and from time to time, in whole or in part, until May 8, 2026. However, the exercise of such Warrant remains subject to certain contractual provisions, the Exchange Cap, and regulatory approval if Castle Creek's ownership of Common Stock would exceed 9.9%. At December 31, 2019, Castle Creek owned approximately 9.9% of the Company's common stock. The Warrant will receive dividends equal to the amount paid on the Company's common stock. The dividend payment shall be calculated on (1) the unexercised portion of the 125,000 notional shares encompassed within the terms of the Warrant, less (2) any exercised portion of the 125,000 shares, times (3) the amount of the quarterly dividend paid to common shareholders. Dividend payments, if declared on the Company's common stock, will be made on the Warrant until its expiration date.

Pursuant to the terms of the Securities Purchase Agreement, Castle Creek is entitled to have one representative appointed to the Company's board of directors for so long as Castle Creek, together with its respective affiliates, owns, in the aggregate, 4.9% or more of all of the outstanding shares of the Company's Common Stock. If Castle Creek, together with its respective affiliates, owns, in the aggregate, 4.9% or more of all of the outstanding shares of the Company's Common Stock and does not have a board representative appointed to the Company's board of directors, the Company will invite a person designated by Castle Creek to attend meetings of the Company's Board of Directors as an observer. At December 31, 2019, Castle Creek elected to have an observer present at substantially all meetings of the Company's board of directors.

We have consistently maintained our historically strong presence in consumer deposit gathering and residential mortgage lending activities. Notwithstanding the retention of these business lines, we have strategically emphasized developing our business and commercial banking franchise by offering products that are attractive to small-to medium-sized businesses in our market area. We differentiate our commercial loan solutions and related services through the maintenance of high standards of customer service, solution flexibility and convenience. Highlights of our business strategy are as follows:

- ***Continuing our emphasis on commercial business and commercial real estate lending.*** In recent years, we have successfully increased our commercial business and commercial real estate lending activities and portfolio size, consistent with safe and sound underwriting practices. In this regard, we have added, and will continue to add, personnel who are experienced in originating, underwriting and servicing commercial real estate and commercial business loans. We view the growth of our commercial business and commercial real estate loans as a means of further diversifying and increasing our interest income. In increasing our business banking activities, we are continuously deepening relationships with local businesses, which offer recurring and potentially increasing sources of both fee income and lower-cost transactional

deposits. In that regard, our emphasis on commercial business and commercial real estate lending has complimented, and will continue to compliment, our traditional one-to-four family residential real estate lending and consumer deposit gathering franchises.

- ***Providing quality customer service.*** Our strategy emphasizes providing quality customer service and meeting the financial needs of our customer base by offering a full complement of loan, deposit, financial services and online banking solutions. Our competitive advantage is our ability to make decisions, such as approving loans, more quickly than our larger competitors. Customers enjoy, and will continue to enjoy, access to senior executives and local decision makers at the Bank and the flexibility that such access brings to their businesses.
- ***Optimizing our deposit mix.*** We seek to enhance the overall characteristics of our organically-sourced deposit base by emphasizing both consumer and business nonmaturity deposit gathering. We also seek to reduce our overall reliance on borrowed funds and brokered deposits as a source of funding for future asset growth. During the second half of 2019, we began a significant refocusing of the Company's resources, most notably through personnel training, modifications to incentive programs, and the high prioritization of operationalizing and/or enhancing customer-facing technologies that are focused on transactional deposits. The goal of these efforts is to better position the Company to compete in our marketplace for these types of deposits in future periods. We expect to make nonmaturity deposit gathering a point of significant organizational focus for the foreseeable future.
- ***Continuing to grow our customer relationships and deposit base by expanding our branch network.*** As conditions permit, we will expand our branch network through a combination of de novo branching and, potentially, acquisitions of branches and/or other financial services companies. We believe that as we expand our branch network, our customer relationships and deposit base will continue to grow. Our branch expansion focus will be primarily within Onondaga County, NY, which encompasses the greater Syracuse, NY area. We currently have three branches in Onondaga County, including the branch in Clay, NY that we opened in the fourth quarter of 2018. We continue to actively seek opportunities for an increased presence within that marketplace. This is consistent with our belief that we have already achieved meaningful brand recognition among potential customers there. In addition to the full-service branches located in Oswego and Onondaga Counties, we opened, in 2017, a loan production office in Utica, located in Oneida County, NY, to increase our availability to potential commercial and business loan customers within that market area. We will continue to seek similar branch network expansion opportunities in the future.

Consistent with this strategy, in November 2018, the Bank acquired a property on West Onondaga Street in Syracuse, which will be renovated and converted into another full-service banking location. We consider the Syracuse Southwest Corridor neighborhood, where this property is located, to be an under-banked area within our target marketplace and believe that this branch will qualify for various economic incentives under New York State's Banking Development District ("BDD") program. The BDD program is designed to encourage the establishment of bank branches in areas where there is a demonstrated need for additional banking services. The program was developed in recognition of the fact that banks play a critically important role in promoting individual wealth, community development, and revitalization. This property investment demonstrates Pathfinder Bank's firm commitment to servicing diverse economic areas within its geographic market. We plan to soon begin renovation work on the acquired facility and expect to open our new Syracuse Southwest branch office by the end of 2020.

- ***Diversifying our products and services with a goal of increasing non-interest income over time.*** We have sought to reduce our dependence on net interest income by increasing fee-based income across a broad spectrum of loan and deposit products. It is expected that we will also benefit from increased ancillary income for service activities related to those products. The Company completed a comprehensive study in late 2019 to better understand and monitor the competitive environment for these types of noninterest income opportunities and to improve its product design and customer relationship optimization strategies. A significant number of product design changes were under development at December 31, 2019 and it is expected that the vast majority of these noninterest income enhancements will be implemented by the end of the first quarter 2020. In recent years, we have also sought to increase the breadth of services that we provide to our customers. We offer property and casualty and life insurance through our subsidiary, Pathfinder Risk Management Company, Inc., and its insurance agency subsidiary, the FitzGibbons Agency, LLC. Additionally, Pathfinder Bank's investment services operations provide brokerage services to our customers for purchasing stocks, bonds, mutual funds, annuities, and long-term care insurance products. We intend to gradually increase our emphasis on the growth of these businesses. We believe that there will be resultant opportunities to cross-sell these products to our deposit and loan customers which will thereby increase our non-interest income over time.
- ***Banking platform and technologies.*** We have committed significant resources to establish a banking platform to accommodate future growth by upgrading our information systems and customer service technologies, maintaining a robust risk management and compliance staff, improving credit administration functionality, and upgrading our physical infrastructure. We believe that these investments will enable us to achieve operational efficiencies with minimal additional investments, while providing increased convenience for our customers.

- **Controlling the rate of growth in operating expenses.** The Company has sought to reduce the rate of growth in its operating expenses relative to the rate of revenue growth and to thereby increase its overall profitability. Substantial new budgetary and expense control mechanisms were implemented during 2019 that management believes will accomplish this goal over time, beginning in 2020.
- **Managing capital.** The Company received \$24.9 million in net proceeds from the sale of approximately 2.6 million shares of common stock as a result of the Conversion in October 2014. In October 2015, the Company executed the issuance of the \$10.0 million non-amortizing Subordinated Loan and subsequently used those proceeds in February 2016 to substantially fund the full retirement of \$13.0 million in SBLF Preferred stock. The Company received \$19.6 million in net proceeds from the sale of 306,977 shares of common stock and 1,155,283 shares of preferred stock as a result of the Private Placement in May 2019. We have successfully leveraged this \$44.5 million in net new capital by growing our consolidated assets by \$532.8 million, or 95.0%, to \$1.1 billion since the Conversion. It is our intent to balance our future growth with capital adequacy considerations in a manner that will continue to allow us to effectively serve all of our key stakeholders and maintain our “well capitalized” capital position.

APPLICATION OF CRITICAL ACCOUNTING POLICIES

The Company's consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States and follow practices within the banking industry. Application of these principles requires management to make estimates, assumptions and judgments that affect the amounts reported in the consolidated financial statements and accompanying notes. These estimates, assumptions and judgments are based on information available as of the date of the financial statements; accordingly, as this information changes, the financial statements could reflect different estimates, assumptions and judgments. Certain policies inherently have a greater reliance on the use of estimates, assumptions and judgments and as such have a greater possibility of producing results that could be materially different than originally reported. Estimates, assumptions and judgments are necessary when assets and liabilities are required to be recorded at fair value or when an asset or liability needs to be recorded contingent upon a future event. Carrying assets and liabilities at fair value inherently results in more financial statement volatility. The fair values, and information used to record valuation adjustments for certain assets and liabilities, are based on quoted market prices or are provided by other third-party sources, when available. When third party information is not available, valuation adjustments are estimated in good faith by management.

The most significant accounting policies followed by the Company are presented in Note 1 to the consolidated financial statements. These policies, along with the disclosures presented in the other financial statement notes and in this discussion, provide information on how significant assets and liabilities are valued in the consolidated financial statements and how those values are determined. Based on the valuation techniques used and the sensitivity of financial statement amounts to the methods, assumptions, and estimates underlying those amounts, management has identified the allowance for loan losses, deferred income tax assets and liabilities, pension obligations, the evaluation of investment securities for other than temporary impairment, the annual evaluation of the Company's goodwill for possible impairment, and the estimation of fair values for accounting and disclosure purposes to be the accounting areas that require the most subjective and complex judgments. These areas could be the most subject to revision as new information becomes available.

Allowance for Loan Losses. The allowance for loan losses represents management's estimate of probable loan losses inherent in the loan portfolio. Determining the amount of the allowance for loan losses is considered a critical accounting estimate because it requires significant judgment on the use of estimates related to the amount and timing of expected future cash flows on impaired loans, estimated losses on pools of homogeneous loans based on historical loss experience, and environmental factors, all of which may be susceptible to significant change. The Company establishes a specific allowance for all commercial loans in excess of the total related credit threshold of \$100,000 and single borrower residential mortgage loans in excess of the total related credit threshold of \$300,000 identified as being impaired which are on nonaccrual and have been risk rated under the Company's risk rating system as substandard, doubtful, or loss. The Company also establishes a specific allowance, regardless of the size of the loan, for all loans subject to a troubled debt restructuring agreement. In addition, an accruing substandard loan could be identified as being impaired. The measurement of impaired loans is generally based upon the present value of future cash flows discounted at the historical effective interest rate, except that all collateral-dependent loans are measured for impairment based on the fair value of the collateral, less costs to sell. At December 31, 2019, the Bank's position in impaired loans consisted of 49 loans totaling \$7.5 million. Of these loans, 18 loans, totaling \$1.4 million, were valued using the present value of future cash flows method; and 31 loans, totaling \$6.1 million, were valued based on a collateral analysis. For all other loans, the Company uses the general allocation methodology that establishes an allowance to estimate the probable incurred loss for each risk-rating category. Note 1 to the consolidated financial statements describes the methodology used to determine the allowance for loan losses and a discussion of the factors driving changes in the amount of the allowance for loan losses is included in this report.

Deferred Income Tax Assets and Liabilities. Deferred income tax assets and liabilities are determined using the liability method. Under this method, the net deferred tax asset or liability is recognized for the future tax consequences. This is attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases as well as net operating and capital loss carry forwards. Deferred tax assets and liabilities are measured using enacted tax rates applied to

taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income tax expense in the period that includes the enactment date. If current available evidence about the future raises doubt about the likelihood of a deferred tax asset being realized, a valuation allowance is established. The judgment about the level of future taxable income, including that which is considered capital, is inherently subjective and is reviewed on a continual basis as regulatory and business factors change. In the quarter ended March 31, 2019, the Company established, through a charge to earnings, a valuation allowance in the amount of \$136,000 in order to reserve against deferred tax assets related to New York State income taxes. Effective in January 2018, the Company adopted a modification methodology, made available following changes to the New York State tax code, effecting how the Company's state income tax liability is computed. Under this adopted methodology, it is unlikely that the Company will pay income taxes to New York State in future periods and it is therefore probable that the Company's deferred tax assets related to New York State income taxes are unlikely to further reduce the Company's state income tax rate in the future. Accordingly, a valuation allowance against the value of those deferred tax assets was established to reduce the net deferred tax asset related to New York income taxes to \$-0-. At December 31, 2019, the Company had a valuation allowance of \$136,000 established against the future projected benefits of deferred tax assets related to New York State income tax obligations. There were no valuation allowances against deferred tax assets at December 31, 2018.

Pension Obligations. Pension and postretirement benefit plan liabilities and expenses are based upon actuarial assumptions of future events, including fair value of plan assets, interest rates, and the length of time the Company will have to provide those benefits. The assumptions used by management are discussed in Note 14 to the consolidated financial statements contained herein.

Evaluation of Investment Securities for Other-Than-Temporary-Impairment ("OTTI"). The Company carries all of its available-for-sale investments at fair value with any unrealized gains or losses reported net of tax as an adjustment to shareholders' equity and included in accumulated other comprehensive income (loss), except for the credit-related portion of debt security impairment losses and OTTI of equity securities which are charged to earnings. The Company's ability to fully realize the value of its investments in various securities, including corporate debt securities, is dependent on the underlying creditworthiness of the issuing organization. In evaluating the debt security (both available-for-sale and held-to-maturity) portfolio for other-than-temporary impairment losses, management considers (1) if we intend to sell the security before recovery of its amortized cost; (2) if it is "more likely than not" we will be required to sell the security before recovery of its amortized cost basis; or (3) if the present value of expected cash flows is not sufficient to recover the entire amortized cost basis. When the fair value of a held-to-maturity or available-for-sale security is less than its amortized cost basis, an assessment is made as to whether OTTI is present. The Company considers numerous factors when determining whether a potential OTTI exists and the period over which the debt security is expected to recover. The principal factors considered are (1) the length of time and the extent to which the fair value has been less than the amortized cost basis, (2) the financial condition of the issuer and (guarantor, if any) and adverse conditions specifically related to the security, industry or geographic area, (3) failure of the issuer of the security to make scheduled interest or principal payments, (4) any changes to the rating of the security by a rating agency, and (5) the presence of credit enhancements, if any, including the guarantee of the federal government or any of its agencies.

Evaluation of Goodwill. Management performs an annual evaluation of the Company's goodwill for possible impairment. Based on the results of the 2019 evaluation, management has determined that the carrying value of goodwill is not impaired as of December 31, 2019. The evaluation approach is described in Note 10 of the consolidated financial statements contained herein.

Estimation of Fair Value. The estimation of fair value is significant to several of our assets; including investment securities available-for-sale, interest rate derivative (discussed in detail in Note 22 of the consolidated financial statements), intangible assets, foreclosed real estate, and the value of loan collateral when valuing loans. These are all recorded at either fair value, or the lower of cost or fair value. Fair values are determined based on third party sources, when available. Furthermore, accounting principles generally accepted in the United States require disclosure of the fair value of financial instruments as a part of the notes to the consolidated financial statements. Fair values on our available-for-sale securities may be influenced by a number of factors; including market interest rates, prepayment speeds, discount rates, and the shape of yield curves.

Fair values for securities available-for-sale are obtained from an independent third party pricing service. Where available, fair values are based on quoted prices on a nationally recognized securities exchange. If quoted prices are not available, fair values are measured using quoted market prices for similar benchmark securities. Management made no adjustments to the fair value quotes that were provided by the pricing source. The fair values of foreclosed real estate and the underlying collateral value of impaired loans are typically determined based on evaluations by third parties, less estimated costs to sell. When necessary, appraisals are updated to reflect changes in market conditions.

RECENT EVENTS

On December 23, 2019, the Company announced that its Board of Directors had declared a cash dividend of \$0.06 per common and preferred share, and a cash dividend of \$0.06 per notional share for the issued common stock Warrant. The dividend was payable on February 7, 2020 to shareholders of record on January 17, 2020.

EXECUTIVE SUMMARY AND RESULTS OF OPERATIONS

The Company reported net income of \$4.3 million for 2019, an increase of \$245,000, or 6.1%, as compared to net income of \$4.0 million for 2018. Net income increased during 2019, as compared to the previous year, due to an increase in net interest income before the provision for loan losses of \$2.5 million and an increase in noninterest income of \$1.1 million. These increases were partially offset by an increase in noninterest expense of \$2.2 million, an increase in income tax expense of \$619,000, and an increase in the provision for loan losses of \$469,000. Basic and diluted earnings per share in 2019 were both \$0.80, as compared to \$0.97 and \$0.94 in 2018, respectively. Return on average assets decreased two basis points to 0.43% in 2019 from 0.45% in 2018. Return on average equity decreased 99 basis points to 5.34% in 2019 as compared to 6.33% in 2018. The decrease in return on average assets in 2019, as compared to the previous year, was primarily due to average asset growth outpacing the increase in net income. Average assets increased in 2019 by \$107.6 million, or 12.0%, as the Company grew its total assets from \$933.1 million at December 31, 2018 to \$1.1 billion at December 31, 2019. The decrease in return on average equity in 2019, as compared to the previous year, was primarily due to the growth in equity outpacing the increase in net income due to the completion of the Private Placement.

Net interest income, before provision for loan losses, increased \$2.5 million, or 9.6%, to \$28.2 million in 2019 on average interest earning assets of \$948.0 million as compared to net interest income before provision for loan losses of \$25.8 million in 2018 on average interest earning assets of \$852.1 million. Interest and dividend income increased \$6.9 million in 2019 to \$41.8 million, as compared to interest and dividend income of \$34.8 million in 2018. The aggregate increase in the average balance of interest-earning assets of \$95.9 million was further enhanced by an increase of 31 basis points in the overall average yield earned on those assets that contributed an increase in interest and dividend income in 2019, as compared to the previous year. The \$6.9 million increase in interest income was partially offset by an increase in interest expense of \$4.5 million due to an increase in average interest-bearing liabilities of \$80.1 million and an increase in the average rate paid on those liabilities of 43 basis points in 2019 as compared to 2018.

The Company recorded a provision for loan losses of \$2.0 million in 2019 as compared to \$1.5 million in the prior year. The \$469,000 year-over-year increase in provision for loan losses reflected continued significant growth in the Bank's commercial and consumer lending portfolios, as well as changes to both quantitative and environmental factors deemed appropriate for the Bank's loan portfolio. Net loan balances increased 26.0% from December 31, 2018 to December 31, 2019. The Company recorded \$603,000 in net charge-offs in 2019 as compared to \$1.3 million in net charge-offs in 2018. The ratio of net charge-offs to average loans decreased to 0.09% in 2019 from 0.22% in 2018. The decrease in the year-over-year charge-off rate was due primarily to the charge-off in 2018 of a single fully-reserved commercial real estate loan in the amount of \$596,000 and the charge-off of a single fully-reserved commercial and industrial loan in the amount of \$124,000.

Noninterest income was \$4.9 million in 2019, an increase of \$1.1 million, or 28.2%, from \$3.8 million in 2018. Net gains on the sales and redemptions of investment securities increased \$511,000 from a loss of \$182,000 in 2018 to a gain of \$329,000 in 2019. During 2019, investment securities sales were part of the Company's portfolio optimization and liquidity management strategies. During 2018, the Company realized losses of \$182,000 on the sales of certain securities in order to provide funding for reinvestment into loans and securities considered to be better matches for the Company's overall balance sheet strategies. All other categories of noninterest income increased \$571,000 in aggregate during 2019, as compared to the previous year. The increase was primarily due to increases in service charges on deposits accounts, gains on marketable equity securities, debit card interchange fees, loan servicing fees, and earnings and gain on bank owned life of \$243,000, \$143,000, \$81,000, \$41,000, and \$35,000, respectively.

Noninterest expense increased \$2.2 million, or 9.3%, to \$25.7 million in 2019 from \$23.5 million in 2018. The year-over-year increase in noninterest expense was primarily due to personnel expenses that increased \$956,000, or 7.5%, in 2019 as compared to 2018. Noninterest expense further increased due to increases in building and occupancy costs, data processing costs, and foreclosed real estate expenses of \$431,000, \$415,000, and \$187,000, respectively. All other noninterest expenses increased \$192,000, or 2.9%, in 2019, as compared to the previous year. Substantially all categories of noninterest expense, not related to personnel costs, increased in a manner that was proportional to the Company's increases in total asset size and reflected the deployment of additional resources by the Company into risk management systems and improved customer service activities.

Total assets were \$1.1 billion at December 31, 2019 as compared to \$933.1 million at December 31, 2018. The increase in total assets of \$160.7 million, or 17.2%, was the result of the increase in loans, principally consumer and commercial loans, of \$161.2 million, partially offset by a \$6.2 million decrease in cash and cash equivalents. All other assets increased by a net \$5.7 million, primarily due to an increase in the operating lease right-of-use asset, premises and equipment, and investment securities of \$2.4 million, \$2.1 million

and \$1.5 million, respectively. The increase in total assets in 2019 was funded largely by a \$154.8 million increase in deposits, specifically a \$59.7 million increase in customer deposits, and a \$95.1 million increase in brokered deposits.

Measured as a percentage of total loans and total assets, the majority of loan asset quality metrics remained stable in comparison to recent reporting periods. The Company's consistent asset quality metrics are reflective of its disciplined risk management process, along with the relative economic stability of its Central New York State market area. Nonperforming loans to total loans were 0.67% at December 31, 2019, up 32 basis points compared to 0.35% at December 31, 2018. The allowance for loan losses to non-performing loans at December 31, 2019 was 165.25%, compared with 340.13% at December 31, 2018. Nonperforming loans to total loans increased from December 31, 2018 primarily due to the addition of one commercial real estate relationship that went into nonaccrual in the second quarter of 2019. Management believes that the value of the collateral properties underlying the loans are sufficient to preclude any significant losses related to these loans. Overall the allowance for loan losses to year end loans decreased from 1.18% at December 31, 2018 to 1.11% at December 31, 2019. This decrease reflected management's estimate of the probable losses inherent in the current loan portfolio.

The ratio of net charge-offs to average loans decreased to 0.09% for 2019 as compared to 0.22% for 2018. This activity reflected charge-offs for those accounts deemed uncollectible but reserved for in prior years through the provision for loan losses. Total past due loans measured as a percent of total loans, increased from 1.81% at December 31, 2018 to 2.09% at December 31, 2019, primarily due to an increase of \$4.2 million in past due commercial loans. The level of nonperforming loans increased in aggregate by \$3.1 million led by an increase of \$2.2 million in nonperforming commercial loans, a \$489,000 increase in nonperforming consumer loans, and a \$437,000 increase in nonperforming residential loans. Commensurate with the increase in nonperforming loans to year end loans, the ratio of nonperforming assets to total assets increased to 0.49% at December 31, 2019 from 0.36% at December 31, 2018.

The Company's shareholders' equity increased \$26.2 million, or 40.8%, to \$90.4 million at December 31, 2019 from \$64.2 million at December 31, 2018. This increase was primarily due to a \$20.2 million increase in additional paid in capital, a \$3.1 million decrease in other comprehensive loss, a \$2.7 million increase in retained earnings, and a \$179,000 increase in ESOP shares earnings. Additional paid in capital increased as a result of the proceeds received from the Private Placement of common and preferred shares that took place in May 2019. Comprehensive loss decreased primarily as the result of the appreciation in the fair market value of our available-for-sale investment securities during 2019. The increase in retained earnings resulted from \$4.3 million in net income recorded in 2019. Partially offsetting the increase in retained earnings was \$1.1 million in cash dividends declared on our common stock, \$208,000 in cash dividends declared on our preferred stock, and \$23,000 in cash dividends declared on our issued warrant. In addition, retained earnings was further reduced by a \$239,000 one-time adjustment, at January 1, 2019, related to the cumulative effect of the capitalization of the operating lease right-of-use-assets based on the adoption of ASU 2016-02 - Leases (Topic 842).

Net Interest Income

Net interest income is the Company's primary source of operating income. It is the amount by which interest earned on interest-earning deposits, loans and investment securities exceeds the interest paid on deposits and borrowed money. Changes in net interest income and the net interest margin ratio resulted from the interaction between the volume and composition of interest earning assets, interest-bearing liabilities, and their respective yields and funding costs.

The following comments refer to the table of Average Balances and Rates and the Rate/Volume Analysis, both of which follow below.

Net interest income, before provision for loan losses, increased \$2.5 million, or 9.6%, to \$28.2 million in 2019 as compared to \$25.8 million in the previous year. Our net interest margin for the year ended December 31, 2019 decreased to 2.98% from 3.02% for the comparable prior year. The increase in net interest income was primarily due to a \$6.9 million, or 20.0%, increase in interest and dividend income in 2019 to \$41.8 million primarily as a result of the \$95.9 million, or 11.3%, increase in the average balances on interest earning assets (due primarily to loan growth) and the 31 basis point increase in the yield earned on those assets. This increase in interest income was partially offset by an increase in interest expense of \$4.5 million, or 49.6%, during 2019, as compared to the previous year. The increase in interest expense was primarily the result of an increase in the interest paid on time deposits of \$4.4 million, as a result of \$121.3 million increase in the average balance of, and a 61 basis point increase in the interest rate paid on time deposits. The increases in the average rates paid on time deposits reflected primarily the competitive environment for such deposits within the Company's marketplace as well as an increase in average short-term interest rates nationally during 2019.

Average Balances and Rates

The following table sets forth information concerning average interest-earning assets and interest-bearing liabilities and the yields and rates thereon. Interest income and resultant yield information in the table has not been adjusted for tax equivalency. Averages are computed on the daily average balance for each month in the period divided by the number of days in the period. Yields and amounts earned include loan fees. Nonaccrual loans have been included in interest-earning assets for purposes of these calculations.

For the twelve months ended December 31,

	2019			2018			2017		
	Average Balance	Interest	Average Yield / Cost	Average Balance	Interest	Average Yield / Cost	Average Balance	Interest	Average Yield / Cost
<i>(Dollars in thousands)</i>									
Interest-earning assets:									
Loans	\$ 691,712	\$34,035	4.92%	\$609,648	\$28,426	4.66%	\$546,193	\$24,392	4.47%
Taxable investment securities	231,656	7,241	3.13%	197,477	5,418	2.74%	184,170	3,827	2.08%
Tax-exempt investment securities	7,679	178	2.32%	28,444	720	2.53%	28,497	1,038	3.64%
Fed funds sold and interest-earning deposits	16,939	304	1.79%	16,496	246	1.49%	20,999	156	0.74%
Total interest-earning assets	947,986	41,758	4.40%	852,065	34,810	4.09%	779,859	29,413	3.77%
Noninterest-earning assets:									
Other assets	66,705			57,529			50,147		
Allowance for loan losses	(7,782)			(7,531)			(6,381)		
Net unrealized losses on available-for-sale securities	(1,215)			(4,018)			(1,642)		
Total assets	\$1,005,694			\$898,045			\$821,983		
Interest-bearing liabilities:									
NOW accounts	\$ 66,945	\$ 120	0.18%	\$ 66,934	\$ 116	0.17%	\$ 67,581	\$ 105	0.16%
Money management accounts	13,711	21	0.15%	13,584	21	0.15%	13,960	25	0.18%
MMDA accounts	189,373	1,772	0.94%	236,958	2,262	0.95%	231,671	1,384	0.60%
Savings and club accounts	83,798	98	0.12%	83,511	85	0.10%	84,092	82	0.10%
Time deposits	364,636	8,702	2.39%	243,342	4,328	1.78%	189,614	2,308	1.22%
Subordinated loans	15,108	863	5.71%	15,075	846	5.61%	15,041	794	5.28%
Borrowings	77,795	1,952	2.51%	71,875	1,386	1.93%	70,071	1,592	2.27%
Total interest-bearing liabilities	811,366	13,528	1.67%	731,279	9,044	1.24%	672,030	6,290	0.94%
Noninterest-bearing liabilities:									
Demand deposits	103,727			96,719			83,053		
Other liabilities	10,465			6,380			5,517		
Total liabilities	925,558			834,378			760,600		
Shareholders' equity	80,136			63,667			61,383		
Total liabilities & shareholders' equity	\$1,005,694			\$898,045			\$821,983		
Net interest income		\$28,230			\$25,766			\$23,123	
Net interest rate spread			2.73%			2.85%			2.83%
Net interest margin			2.98%			3.02%			2.97%
Ratio of average interest-earning assets to average interest-bearing liabilities			116.84%			116.52%			116.05%

Rate/Volume Analysis

Net interest income can also be analyzed in terms of the impact of changing interest rates on interest-earning assets and interest-bearing liabilities, and changes in the volume or amount of these assets and liabilities. The following table represents 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 years indicated. Information is provided in each category with respect to: (i) changes attributable to changes in volume (change in volume multiplied by prior rate); (ii) changes attributable to changes in rate (changes in rate multiplied by prior volume); and (iii) total increase or decrease. Changes attributable to both rate and volume have been allocated ratably. Tax-exempt securities have not been adjusted for tax equivalency.

(In thousands)	Years Ended December 31,					
	2019 vs. 2018			2018 vs. 2017		
	Increase/(Decrease) Due to			Increase/(Decrease) Due to		
	Volume	Rate	Total Increase (Decrease)	Volume	Rate	Total Increase (Decrease)
Interest Income:						
Loans	\$ 3,976	\$ 1,633	\$ 5,609	\$ 2,924	\$ 1,110	\$ 4,034
Taxable investment securities	1,010	813	1,823	293	1,298	1,591
Tax-exempt investment securities	(486)	(56)	(542)	(2)	(316)	(318)
Interest-earning deposits	7	51	58	(39)	129	90
Total interest and dividend income	4,507	2,441	6,948	3,176	2,221	5,397
Interest Expense:						
NOW accounts	-	4	4	(1)	12	11
Money management accounts	-	-	-	(1)	(3)	(4)
MMDA accounts	(446)	(44)	(490)	32	846	878
Savings and club accounts	-	13	13	(1)	4	3
Time deposits	2,595	1,779	4,374	769	1,251	2,020
Subordinated loans	2	15	17	2	50	52
Borrowings	122	444	566	40	(246)	(206)
Total interest expense	2,273	2,211	4,484	840	1,914	2,754
Net change in net interest income	\$ 2,234	\$ 230	\$ 2,464	\$ 2,336	\$ 307	\$ 2,643

Interest Income

Changes in interest income result from changes in the average balances of loans, securities, and interest-earning deposits and the related average yields on those balances.

Interest and dividend income increased \$6.9 million, or 20.0%, to \$41.8 million in 2019 as compared to \$34.8 million in 2018 due principally to the \$95.9 million, or 11.3%, increase in average interest-earning assets. The increase in average interest-earning assets was primarily due to the increase in the average balances of loans, which increased \$82.1 million, or 13.5%, in 2019, as compared to the previous year. The increase in the average balance of loans was due principally to an increase in consumer loans, commercial loans, and residential mortgage loans. The increase in consumer loans was primarily the result of the 2019 acquisition of \$41.9 million in unsecured consumer loans and \$45.3 million in loans secured by residential real estate and automobiles. Commercial lending growth was primarily a reflection of organic origination activity along with the acquisition of a \$6.8 million pool of loans of commercial and industrial loans. The increase in residential mortgage loans was primarily a reflection of organic origination activity along with the acquisition of a \$2.0 million pool of first lien residential mortgages. The average yield earned on loans increased 26 basis points to 4.92% in 2019 from 4.66% in 2018 as maturing lower rate loans were replaced by loans at current higher market rates. Interest on taxable investment securities increased \$1.8 million in 2019, as compared with the previous year. The average yields earned on taxable investment securities increased 39 basis points to 3.13% in 2019 as compared to 2.74% in 2018, accounting for an increase in interest income of \$813,000 in 2019, as compared to 2018. The year-over-year increase in the interest rates earned on taxable investment securities was primarily due to increases in shorter-term interest rates that allowed amortizing and maturing securities' balances to be replaced in 2019 with generally higher-yielding securities. The average balance of taxable investment securities increased \$34.2 million, or 17.3%, in 2019, as compared to the previous year, accounting for an increase in 2019 interest income from taxable investment securities of \$1.0 million as compared to 2018.

Interest Expense

Changes in interest expense result from changes in the average balances of deposits and borrowings and the related average interest costs on those balances.

Interest expense increased \$4.5 million, or 49.6%, to \$13.5 million in 2019, as compared to \$9.0 million in the previous year. The increase in interest expense was primarily the result of an increase in interest paid on time deposits of \$4.4 million. Increases between 2019 and 2018 were recorded in average rates paid on time deposits of 61 basis points. The increases in the average rates paid on time deposits reflected the competitive environment for such deposits within the Company's.

Total interest expense also increased in 2019, as compared to the previous year, due to increases in the average balance of time deposits of \$121.3 million. The increase in the average balance of time deposits in 2019 was due to a \$91.2 million increase in time deposits obtained by the Bank through its customer base and an increase of \$30.1 million in acquired brokered time deposits. The increase in the average balance of time deposits was largely the result of targeted promotional activity for our time deposit products. Further contributing to the increase in interest expense was a \$566,000 increase in borrowings expense, which increased due to a \$5.9 million increase in the average balance of borrowings.

Provision for Loan Losses

We establish a provision for loan losses, which is charged to operations, at a level management believes is appropriate to absorb probable incurred credit losses in the loan portfolio. In evaluating the level of the allowance for loan losses, management considers historical loss experience, the types and amount of loans in the loan portfolio, adverse situations that may affect a borrower's ability to repay, estimated value of any underlying collateral, and prevailing economic conditions. This evaluation is inherently subjective as it requires estimates that are susceptible to significant revision as more information becomes available or as future events change. The provision for loan losses represents management's estimate of the amount necessary to maintain the allowance for loan losses at an adequate level.

The Company recorded a provision for loan losses of \$2.0 million in 2019 as compared to \$1.5 million in the prior year. The \$469,000 year-over-year increase in provision for loan losses reflected continued significant growth in the Bank's lending portfolios, as well as changes to both quantitative and environmental factors deemed appropriate for the Bank's loan portfolio. The Company recorded \$603,000 in net charge-offs in 2019 as compared to \$1.3 million in net charge-offs in 2018. The ratio of net charge-offs to average loans decreased to 0.09% in 2019 from 0.22% in 2018. The decrease in the year-over-year charge-off rate was due primarily to the charge-off in 2018 of a single fully-reserved commercial real estate loan in the amount of \$596,000 and the charge-off of a single fully-reserved commercial and industrial loan in the amount of \$124,000.

Loans purchased outside of the Bank's general market area are subject to substantial prepurchase due diligence. Homogenous pools of purchased loans are subject to prepurchase analyses led by a team of the Bank's senior executives and credit analysts. In each case, the Bank's analytical processes consider the types of loans being evaluated, the underwriting criteria employed by the originating entity, the historical performance of such loans, especially in the most recent deeply recessionary period, the collateral enhancements and other credit loss mitigation factors offered by the seller and the capabilities and financial stability of the servicing entities involved. From a credit risk perspective, these loan pools also benefit from broad diversification, including wide geographic dispersion, the readily-verifiable historical performance of similar loans issued by the originators, as well as the overall experience and skill of the underwriters and servicing entities involved as counterparties to the Bank in these transactions. The performance of all purchased loan pools are monitored regularly from detailed reports and remittance reconciliations provided at least monthly by the servicing entities.

Over the life of the loan pools, the credit performance of the purchased loan pools are analyzed against prepurchase and updated expectations at least monthly. The expected credit loss experience for purchased pools of loans is modified, to the extent deemed necessary, on a prospective basis during the life of the purchased loan pools. The Bank does not initially increase the allowance for loan losses on the purchase date of the loan pools.

Noninterest Income

The Company's noninterest income is primarily comprised of fees on deposit account balances and transactions, loan servicing, commissions and net gains or losses on sales of securities, loans, and foreclosed real estate.

The following table sets forth certain information on noninterest income for the years indicated.

<i>(Dollars in thousands)</i>	Years Ended December 31,			
	2019	2018	Change	
Service charges on deposit accounts	\$ 1,391	\$ 1,148	\$ 243	21.2%
Earnings and gain on bank owned life insurance	462	427	35	8.2%
Loan servicing fees	211	170	41	24.1%
Debit card interchange fees	657	576	81	14.1%
Insurance agency revenue	844	840	4	0.5%
Other charges, commissions and fees	878	868	10	1.2%
Noninterest income before gains	4,443	4,029	414	10.3%
Net gains (losses) on sales and redemptions of investment securities	329	(182)	511	280.8%
Net gains on sales of loans and foreclosed real estate	64	50	14	28.0%
Gains (losses) on marketable equity securities	81	(62)	143	100.0%
Total noninterest income	\$ 4,917	\$ 3,835	\$ 1,082	28.2%

Noninterest income for the year ended December 31, 2019 increased \$1.1 million, or 28.2%, to \$4.9 million from the year ended December 31, 2018. Noninterest income before gains (losses) on the sales and redemptions of investment securities, gains (losses) on marketable equity securities, and gains on the sale of loans and foreclosed real estate increased \$414,000, or 10.3%, to \$4.4 million in 2019 as compared to \$4.0 million in 2018. This \$414,000 increase in 2019, as compared with the previous year, was primarily due to increases in service charges on deposits accounts, debit card interchange fees, loan servicing fees, and earnings and gain on bank owned life insurance of \$243,000, \$81,000, \$41,000, and \$35,000, respectively.

Net gains (losses) on the sales and redemptions of investment securities increased \$511,000 from a loss of \$182,000 in 2018 to a gain of \$329,000 in 2019. During 2019, investment securities sales were part of the Company's portfolio optimization and liquidity management strategies. During 2018, the Company realized losses of \$182,000 on the sales of certain securities in order to provide funding for reinvestment into loans and securities considered to be better matches for the Company's overall balance sheet strategies.

Noninterest Expense

The following table sets forth certain information on noninterest expense for the years indicated.

<i>(Dollars in thousands)</i>	Years Ended December 31,			
	2019	2018	Change	
Salaries and employee benefits	\$ 13,660	\$ 12,704	\$ 956	7.5%
Building occupancy	2,674	2,243	431	19.2%
Data processing	2,339	1,924	415	21.6%
Professional and other services	1,325	1,360	(35)	-2.6%
Advertising	962	920	42	4.6%
FDIC assessments	421	492	(71)	-14.4%
Audits and exams	427	422	5	1.2%
Insurance agency expense	816	875	(59)	-6.7%
Community service activities	620	541	79	14.6%
Foreclosed real estate expenses	337	150	187	124.7%
Other expenses	2,149	1,918	231	12.0%
Total noninterest expenses	\$ 25,730	\$ 23,549	\$ 2,181	9.3%

Noninterest expenses for 2019 increased \$2.2 million, or 9.3%, to \$25.7 million from \$23.5 million for the prior year. Higher noninterest expenses largely reflect investments in personnel and support functionality related to the Company's continued efforts to increase its business activities, primarily in the Syracuse market. In addition, these higher expenses reflect management's execution of its planned enhancements to the Company's risk management capabilities and improvements to the Company's customer service level functionality.

The year-over-year increase in noninterest expenses was primarily due to higher personnel expenses that increased \$956,000, or 7.5%, in 2019 as compared to 2018. The increase in salaries expense was due to the expansion of the Company's staffing levels in a number of areas, primarily focused on enhanced business development, risk management activities and customer service-related activities. These increases in personnel expenses resulted from increases of \$473,000, or 5.7%, in salaries expense, a \$401,000, or 18.3%, in aggregate employee benefits and payroll taxes, and a \$121,000 increase in commission expense, partially offset by a decrease of \$39,000, or 2.6%, in all other personnel expense categories. Salaries expense increased primarily as the result of additional staff members supporting current and planned asset growth and risk management activities as well as increased customer service and other operating costs reflecting the ramp-up period for our two new banking locations in Oneida and Onondaga counties. The year-over-year increases in employee benefit expenses were consistent with the salary increases discussed above.

Building and occupancy expense increased \$431,000, or 19.2%, primarily due to increased maintenance, depreciation and communications expenses principally related to the Company's ongoing refurbishment and modernization programs for its physical facilities and the opening of the Bank's tenth full-service branch location, located in Clay NY, in November 2018. These increases are consistent with branch and operational growth.

Data processing expense increased \$415,000, or 21.6%, primarily due to increased equipment depreciation related to system upgrades and increased transaction-related fees paid to third-party vendors. These increased transaction-related fees resulted from higher transaction volumes derived from both greater numbers of customers in 2019, as compared to the previous year, and increased utilization levels by existing customers of the Bank's internet and mobile banking offerings.

Community service activities increased \$79,000, or 14.6%, in 2019 primarily due to the Company's expanded presence in the Syracuse market. These activities, include event sponsorships, financial support for community development agencies, memberships and other direct support for economic development agencies and similar organizations dedicated to growing the economies, and increasing employment, within our marketplace, and charitable donations. These activities are intended to support overall economic and social development within the communities in which we serve and to promote overall brand awareness.

Foreclosed real estate expenses increased \$187,000 as a result of property taxes paid on a foreclosed property. This foreclosed property was sold in February 2019 and is no longer in foreclosed real estate at December 31, 2019.

Other expenses increased \$231,000, or 12.0%, principally due to \$148,000 in expenses related to either the impairment or disposals of certain fixed assets. During 2019, the Company recognized an impairment charge of \$75,000 related to the pending sale of a vacant parcel of land the Company was no longer considering for development as a potential branch site and \$73,000 related to the disposal of certain fixed assets at a branch that was commensurate with significant renovations and modernization completed at that branch during the year. The sale of the vacant land was completed in the first quarter of 2020 with net proceeds being substantially equal to the property's adjusted historical cost at December 31, 2019.

Income Tax Expense

The Company reported income tax expense of \$1.2 million in 2019 and \$546,000 in 2018. Income tax expense increased \$619,000 in 2019 as compared to the previous year. In 2019, the Company's effective tax rate was 21.4%, as compared to 11.9% in 2018. The Company's effective tax rate increased by 2.5%, in order to establish a reserve against deferred tax assets related to New York State income taxes. The Company's effective tax rate was reduced from the federal statutory income tax rate of 21.0% by 2.6% in 2019 by the combined effects of tax exempt income received in the form of interest on tax exempt loans and investment securities, and the increase in the value of its bank owned life insurance. All other individually immaterial items related to the calculation of the Company's effective tax rate in aggregate increased the Company's effective tax rate by 0.5% in 2019.

Banking corporations operating in New York State are taxed under the New York State General Business Corporation Franchise Tax provisions. New York State franchise tax is imposed in an amount equal to the greater of (1) 6.5% of Business Income, (2) .05% of average Business Capital, or (3) a fixed dollar amount based on New York sourced gross receipts. However, various modifications are available to community banks (defined as banks with less than \$8 billion in total assets) regarding certain deductions associated with interest income. Commencing January 1, 2018, the Company changed its subtraction modification from that of a captive real estate investment trust (REIT) to one based on interest income from qualifying loans. This change follows changes to the laws enacted by New York State effective January 1, 2015. As a result, for 2019 the Company is subject to a fixed dollar amount of New York State income tax and the current effective income tax payable to New York State was reduced to close to \$0. It is anticipated that the Company's New York State effective income tax rate will remain substantially at 0.0% for future periods under the current law. In the first quarter of 2019, the Company established, through a charge to earnings, a valuation allowance in the amount of \$136,000, increasing the Company's effective tax rate by 2.5% in 2019, in order to establish a reserve against deferred tax assets related to New York State income taxes. It is unlikely that the Company will pay income taxes to New York in future periods and it is therefore probable that the Company's existing deferred tax assets related to New York State income taxes are unlikely to further reduce the Company's State tax rate in the future. Accordingly, the \$136,000 valuation allowance was established against the recorded value of those deferred tax assets in order to reduce the net deferred tax asset related to New York income taxes to \$-0- at December 31, 2019. There were no valuation allowances against deferred tax assets at December 31, 2018.

As a Maryland business corporation, the Company is required to file an annual report with, and pay franchise taxes to, the State of Maryland.

See Note 17 to the consolidated financial statements for the reconciliation of the statutory tax rate to the effective tax rate.

Earnings Per Share

Basic and diluted earnings per share for the year ended December 31, 2019 were both \$0.80, as compared to basic and diluted earnings per share of \$0.97 and \$0.94 for the year ended December 31, 2018. The decrease in earnings per share between these two periods was due to the decrease in net income available to common shareholders between these two time periods. Further information on earnings per share can be found in Note 3 of this Form 10-K.

CHANGES IN FINANCIAL CONDITION

Total assets were \$1.1 billion at December 31, 2019 as compared to \$933.1 million at December 31, 2018. The increase in total assets of \$160.7 million, or 17.2%, was the result of the increase in loans, principally consumer and commercial loans, of \$161.2 million, partially offset by a \$6.2 million decrease in cash and cash equivalents. All other assets increased by a net \$5.7 million, primarily due to an increase in the operating lease right-of-use asset, premises and equipment, and investment securities of \$2.4 million, \$2.1 million and \$1.5 million, respectively. The increase in total assets in 2019 was funded largely by a \$154.8 million increase in deposits, specifically a \$59.7 million increase in customer deposits, and a \$95.1 million increase in brokered deposits.

Investment Securities

The investment portfolio represented 25.2% of the Company's average interest earning assets in 2019 and is designed to generate a favorable rate of return in consideration of all risk factors associated with debt securities while assisting the Company in meeting its liquidity needs and interest rate risk strategies. All of the Company's investments, with the exception of marketable equity securities, are classified as either available-for-sale or held-to-maturity. The Company does not hold any trading securities. The Company invests primarily in securities issued by United States Government agencies and sponsored enterprises ("GSE"), mortgage-backed securities, collateralized mortgage obligations, state and municipal obligations, mutual funds, equity securities, investment grade corporate debt instruments, and common stock issued by the FHLB NY. By investing in these types of assets, the Company reduces the credit risk of its asset base through geographical and collateral-type diversification but must accept lower yields than would typically be available on loan products. Our mortgage-backed securities and collateralized mortgage obligations portfolios include privately-issued but substantially over-collateralized pass-through securities as well as pass-through securities guaranteed by Fannie Mae, Freddie Mac, or Ginnie Mae. At December 31, 2019, the investment securities portfolio had approximately 3.8% of its composition in various forms of pass-through securities comprised of seasoned mortgage-backed securities whose underlying collateral was, to varying degrees (depending on the individual security's initial and current composition), considered sub-prime or high-risk at the securities' issuance dates. These privately-issued mortgage-backed securities are believed to be adequately collateralized by subordinate structures and ongoing credit support mechanisms and are, therefore, well insulated from loss of principal due to credit default.

At December 31, 2019, available-for-sale investment securities decreased 37.4% to \$111.1 million and held-to-maturity investment securities increased 128.1% to \$123.0 million. There were no securities that exceeded 10% of consolidated shareholders' equity.

Our available-for-sale investment securities are carried at fair value and our held-to-maturity investment securities are carried at amortized cost.

The following table sets forth the carrying value of the Company's investment portfolio at December 31:

<i>(In thousands)</i>	Available-for-Sale			Held-to-Maturity		
	2019	2018	2017	2019	2018	2017
Investment Securities:						
US treasury, agencies and GSEs	\$ 16,820	\$ 17,031	\$ 41,336	\$ 1,998	\$ 3,987	\$ 4,948
State and political subdivisions	1,736	23,065	13,681	8,534	5,089	35,130
Corporate	12,554	17,200	8,600	25,779	9,924	8,311
Asset backed securities	13,232	18,119	6,644	23,099	1,509	-
Residential mortgage-backed - US agency	18,980	31,666	35,742	13,715	11,601	6,853
Collateralized mortgage obligations - US agency	30,785	46,441	53,348	19,607	13,972	7,574
Collateralized mortgage obligations - Private label	16,821	23,936	11,052	30,256	7,826	3,380
Common stock - financial services industry	206	206	735	-	-	-
Total investment securities	\$ 111,134	\$ 177,664	\$ 171,138	\$ 122,988	\$ 53,908	\$ 66,196

The following table sets forth the scheduled maturities, amortized cost, fair values and average yields for the Company's investment securities at December 31, 2019. Average yield is calculated on the amortized cost to maturity. Adjustable rate mortgage-backed securities are included in the period in which interest rates are next scheduled to be reset.

AVAILABLE FOR SALE

	One Year or Less		More Than One to Five Years		More Than Five to Ten Years	
	Amortized Cost	Annualized Weighted Avg Yield	Amortized Cost	Annualized Weighted Avg Yield	Amortized Cost	Annualized Weighted Avg Yield
<i>(Dollars in thousands)</i>						
Debt investment securities:						
US Treasury, agencies and GSEs	\$ 9,976	1.54%	\$ -	-	\$ 6,874	2.76%
State and political subdivisions	245	1.73%	-	-	-	-
Corporate	31	3.94%	10,406	3.77%	1,910	3.96%
Asset backed securities	-	-	1,046	4.11%	7,025	3.85%
Total	\$ 10,252	1.55%	\$ 11,452	3.80%	\$ 15,809	3.39%
Mortgage-backed securities:						
Residential mortgage-backed - US agency	\$ -	-	\$ 2,201	2.61%	\$ 4,656	2.07%
Collateralized mortgage obligations - US agency	-	-	889	1.92%	7,372	2.27%
Collateralized mortgage obligations - Private label	2,002	3.94%	1,924	3.99%	-	-
Total	\$ 2,002	3.94%	\$ 5,014	3.02%	\$ 12,028	2.19%
Other non-maturity investments:						
Equity securities	\$ 206	0.53%	\$ -	-	\$ -	-
Total	\$ 206	0.53%	\$ -	-	\$ -	-
Total investment securities	\$ 12,460	1.92%	\$ 16,466	3.56%	\$ 27,837	2.87%

	More Than Ten Years		Total Investment Securities		
	Amortized Cost	Annualized Weighted Avg Yield	Amortized Cost	Fair Value	Annualized Weighted Avg Yield
<i>(Dollars in thousands)</i>					
Debt investment securities:					
US Treasury, agencies and GSEs	\$ -	-	\$ 16,850	\$ 16,820	2.03%
State and political subdivisions	1,490	3.29%	1,735	1,736	3.07%
Corporate	-	-	12,347	12,554	3.80%
Asset backed securities	5,119	3.88%	13,190	13,232	3.88%
Total	\$ 6,609	3.75%	\$ 44,122	\$ 44,342	3.12%
Mortgage-backed securities:					
Residential mortgage-backed - US agency	\$ 12,155	2.54%	\$ 19,012	\$ 18,980	2.43%
Collateralized mortgage obligations - US agency	23,059	2.34%	31,320	30,785	2.31%
Collateralized mortgage obligations - Private label	12,841	3.26%	16,767	16,821	3.42%
Total	\$ 48,055	2.64%	\$ 67,099	\$ 66,586	2.62%
Other non-maturity investments:					
Equity securities	\$ -	-	\$ 206	\$ 206	0.53%
Total	\$ -	-	\$ 206	\$ 206	0.53%
Total investment securities	\$ 54,664	2.77%	\$ 111,427	\$ 111,134	2.82%

HELD-TO-MATURITY

	One Year or Less		More Than One to Five Years		More Than Five to Ten Years	
	Amortized Cost	Annualized	Amortized Cost	Annualized	Amortized Cost	Annualized
		Weighted Avg Yield		Weighted Avg Yield		Weighted Avg Yield
<i>(Dollars in thousands)</i>						
Debt investment securities:						
US Treasury, agencies and GSEs	\$ 998	2.08%	\$ 1,000	1.70%	\$ -	-
State and political subdivisions	310	2.08%	4,227	3.20%	3,331	2.91%
Corporate	-	-	9,575	3.60%	14,208	4.18%
Asset backed securities	-	-	9,872	4.09%	-	-
Total	\$ 1,308	2.08%	\$ 24,674	3.65%	\$ 17,539	3.94%
Mortgage-backed securities:						
Residential mortgage-backed - US agency	\$ 504	3.11%	\$ 1,648	3.74%	\$ 1,468	3.52%
Collateralized mortgage obligations - US agency	-	-	5,996	3.01%	4,750	2.78%
Collateralized mortgage obligations - Private label	1,808	4.09%	2,761	3.88%	5,183	3.96%
Total	\$ 2,312	3.88%	\$ 10,405	3.36%	\$ 11,401	3.41%
Total investment securities	\$ 3,620	3.23%	\$ 35,079	3.56%	\$ 28,940	3.73%

	More Than Ten Years		Total Investment Securities		
	Amortized Cost	Annualized	Amortized Cost	Fair Value	Annualized
		Weighted Avg Yield			Weighted Avg Yield
<i>(Dollars in thousands)</i>					
Debt investment securities:					
US Treasury, agencies and GSEs	\$ -	-	\$ 1,998	\$ 2,000	1.89%
State and political subdivisions	665	4.97%	8,534	8,654	3.19%
Corporate	1,996	3.74%	25,779	26,334	3.93%
Asset backed securities	13,227	3.62%	23,099	23,085	3.82%
Total	\$ 15,888	3.69%	\$ 59,410	\$ 60,073	3.71%
Mortgage-backed securities:					
Residential mortgage-backed - US agency	\$ 10,095	3.02%	\$ 13,715	\$ 13,959	3.17%
Collateralized mortgage obligations - US agency	8,861	3.36%	19,607	19,878	3.11%
Collateralized mortgage obligations - Private label	20,504	2.50%	30,256	30,238	2.97%
Total	\$ 39,460	2.83%	\$ 63,578	\$ 64,075	3.06%
Total investment securities	\$ 55,348	3.07%	\$ 122,988	\$ 124,148	3.37%

The yield information disclosed above does not give effect to changes in fair value that are reflected in accumulated other comprehensive loss in consolidated shareholders' equity.

Loans Receivable

Average loans receivable represented 73.0% of the Company's average interest earning assets in 2019 and account for the greatest portion of total interest income. At December 31, 2019, the Company has the largest portion of its loan portfolio in commercial loan products that represented 51.6% of total loans. These products include credits extended to businesses and political subdivisions within its marketplace that are typically secured by commercial real estate, equipment, inventories, and accounts receivable. The residential mortgage loans product segment represents 31.9% of total loans at December 31, 2019. The Company has seen the proportion of commercial loan products to total loans increase in recent years and it will continue to emphasize these types of loans. Notwithstanding this emphasis, the Company also anticipates a continued commitment to financing the purchase or improvement of residential real estate in its market area.

The following table sets forth the composition of our loan portfolio, including net deferred costs, in dollar amount and as a percentage of loans.

<i>(Dollars in thousands)</i>	December 31,									
	2019		2018		2017		2016		2015	
Residential real estate	\$212,663	27.2%	\$238,894	38.5%	\$221,623	38.2%	\$206,900	42.0%	\$189,367	44.0%
Residential real estate held-for-sale	35,936	4.6%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Commercial real estate	254,781	32.6%	212,622	34.3%	192,540	33.2%	150,569	30.6%	129,481	30.1%
Commercial and tax exempt	148,776	19.0%	116,914	18.8%	111,786	19.2%	103,394	21.0%	83,016	19.3%
Home equity and junior liens	46,688	6.0%	26,416	4.3%	26,235	4.5%	24,991	5.1%	23,688	5.5%
Consumer loans	82,607	10.6%	25,424	4.1%	28,647	4.9%	6,293	1.3%	4,886	1.1%
Total loans receivable	\$781,451	100.0%	\$620,270	100.0%	\$580,831	100.0%	\$492,147	100.0%	\$430,438	100.0%

The following table shows the amount of loans outstanding, including net deferred costs, as of December 31, 2019 which, based on remaining scheduled repayments of principal, are due in the periods indicated. Demand loans having no stated schedule of repayments, no stated maturity, and overdrafts are reported as one year or less. Adjustable and floating rate loans are included in the period on which interest rates are next scheduled to adjust, rather than the period in which they contractually mature. Fixed rate loans are included in the period in which the final contractual repayment is due.

<i>(In thousands)</i>	Due Under One Year	Due 1-5 Years	Due Over Five Years	Total
Real estate:				
Commercial real estate	\$ 73,453	\$ 167,101	\$ 14,227	\$ 254,781
Residential real estate	9,663	15,974	222,962	248,599
Total real estate loans	83,116	183,075	237,189	503,380
Commercial and tax exempt	95,934	41,107	11,735	148,776
Home Equity and junior liens	57	4,162	42,469	46,688
Consumer	1,972	55,239	25,396	82,607
Total loans	\$ 181,079	\$ 283,583	\$ 316,789	\$ 781,451

The following table sets forth fixed- and adjustable-rate loans at December 31, 2019 that are contractually due after December 31, 2020:

<i>(In thousands)</i>	Due After One Year
Interest rates:	
Fixed	\$ 366,640
Variable	233,732
Total loans	\$ 600,372

Total loans receivable, including net deferred costs, increased \$161.2 million, or 26.0%, to \$781.5 million at December 31, 2019 when compared to \$620.3 million at December 31, 2018, primarily due to growth in consumer and commercial loans. The Company does not originate sub-prime, Alt-A, negative amortizing or other higher risk structured residential mortgages. Consumer and home equity and junior lien loans increased \$77.5 million, or 149.4%, to \$129.3 million at December 31, 2019 as compared to \$51.8 million at December 31, 2018. Commercial and commercial real estate loans increased \$74.0 million, or 22.5%, to \$403.6 million at December 31, 2019 as compared to \$329.5 million at December 31, 2018. The Company maintained its previously established credit standards, but continued to benefit from the expanding relationship-derived business activity within the markets that the Bank serves.

Nonperforming Loans and Assets

The following table represents information concerning the aggregate amount of nonperforming assets:

<i>(Dollars In thousands)</i>	December 31,				
	2019	2018	2017	2016	2015
Nonaccrual loans:					
Commercial and commercial real estate loans	\$ 3,002	\$ 830	\$ 2,443	\$ 1,863	\$ 3,238
Consumer	631	142	363	388	365
Residential mortgage loans	1,613	1,176	2,088	2,560	1,715
Total nonaccrual loans	5,246	2,148	4,894	4,811	5,318
Total nonperforming loans	5,246	2,148	4,894	4,811	5,318
Foreclosed real estate	88	1,173	468	597	517
Total nonperforming assets	\$ 5,334	\$ 3,321	\$ 5,362	\$ 5,408	\$ 5,835
Accruing troubled debt restructurings	\$ 2,008	\$ 2,574	\$ 2,539	\$ 5,531	\$ 1,916
Nonperforming loans to total loans	0.67%	0.35%	0.84%	0.98%	1.24%
Nonperforming assets to total assets	0.49%	0.36%	0.61%	0.72%	0.94%

Nonperforming assets include nonaccrual loans, nonaccrual troubled debt restructurings (“TDR”), and foreclosed real estate (“FRE”). Loans are considered a TDR when, due to a borrower’s financial difficulties, the Company makes a concession(s) to the borrower that it would not otherwise consider. These modifications may include an extension of the term of the loan, and granting a period when interest-only payments can be made, with the principal payments made over the remaining term of the loan or at maturity. TDRs are included in the above table within the categories of nonaccrual loans or accruing TDRs.

Total nonperforming loans increased \$3.1 million, or 144.2%, between December 31, 2018 and December 31, 2019, driven by increases of \$2.2 million, \$489,000 and \$437,000 in nonperforming commercial and commercial real estate loans, consumer loans, and residential real estate loans, respectively. The increase in nonperforming commercial and commercial real estate loans was comprised of 20 loans that were nonperforming at December 31, 2019 as compared to 11 loans that were nonperforming at December 31, 2018. The increase in nonperforming consumer loans was comprised of 19 loans that were nonperforming at December 31, 2019 as compared to 13 loans that were nonperforming at December 31, 2018. The increase in nonperforming residential real estate loans was comprised of 16 loans that were nonperforming at December 31, 2019 as compared to 11 loans that were nonperforming at December 31, 2018. Management believes that the value of the collateral properties underlying the loans is sufficient to preclude any significant losses related to these loans. Management continues to monitor and react to national and local economic trends as well as general portfolio conditions which may impact the quality of the portfolio, and considers these environmental factors in support of the allowance for loan loss reserve. Management believes that the current level of the allowance for loan losses, at \$8.7 million at December 31, 2019, adequately addresses the current level of risk within the loan portfolio, particularly considering the types and levels of collateralization supporting the substantial majority of the portfolio. The Company maintains strict loan underwriting standards and carefully monitors the performance of the loan portfolio.

Foreclosed Real Estate (“FRE”) balances decreased by \$1.1 million at December 31, 2019, from the prior year end and reflected the timing of foreclosures versus sales in 2019. The number of FRE properties decreased from five to one between these two dates.

The Company generally places a loan on nonaccrual status and ceases accruing interest when loan payment performance is deemed unsatisfactory and the loan is past due 90 days or more. There are no loans that are past due 90 days or more and still accruing interest. The Company considers a loan impaired when, based on current information and events, it is probable that the Company will be unable to collect the scheduled payments of principal and interest when due according to the contractual terms of the loan. Had the loans in nonaccrual status performed in accordance with their original terms, additional interest income of \$222,000 and \$75,000 would have been recorded for the years ended December 31, 2019 and December 31, 2018, respectively.

The measurement of impaired loans is based upon the fair value of the collateral or the present value of future cash flows discounted at the historical effective interest rate for impaired loans when the receipt of contractual principal and interest is probable. At December 31, 2019 and December 31, 2018, the Company had \$7.5 million and \$6.0 million in loans, which were deemed to be impaired, having specific reserves of \$830,000 and \$631,000, respectively. The \$1.5 million year-over-year increase in impaired loans was principally due to increases of \$1.6 million, \$111,000, \$91,000, and \$13,000 in impaired commercial real estate loans, impaired other commercial and industrial loans, impaired other consumer loans, and impaired home equity and junior lien impaired loans, respectively. All other loan product segments (which include residential loans and commercial lines of credit) reported modest year-over-year decreases in impaired loans of \$288,000 in aggregate.

The threshold for individually measuring impairment on commercial real estate or commercial loans remains at \$100,000 and for residential mortgage loans remains at \$300,000 at December 31, 2019. The thresholds described above do not apply to loans that have been classified as troubled debt restructurings, which are individually measured for impairment at the time that the restructuring is affected.

Appraisals are obtained at the time a real estate secured loan is originated. For commercial real estate held as collateral, the property is inspected every two years.

Management has identified certain loans with potential credit profiles that may result in the borrowers not being able to comply with the current loan repayment terms and which may result in possible future impaired loan reporting. Potential problem loans increased \$16.9 million to \$31.5 million at December 31, 2019, compared to \$14.6 million at December 31, 2018. These loans have been internally classified as special mention, substandard, or doubtful, yet are not currently considered impaired. The increase in potential problem loans was primarily due to a \$6.5 million increase in potential problem commercial lines of credit, a \$5.3 million increase in potential problem commercial and industrial loans, and a \$4.1 million increase in potential problem commercial real estate loans. The increase in potential problem commercial lines of credit was primarily due to the addition of three relationships rated special mention with an outstanding balance of \$5.2 million. The increase in potential problem commercial and industrial loans was primarily due to the addition of four relationships rated special mention with an outstanding balance of \$5.5 million. The increase in potential problem commercial real estate loans was primarily due to the addition of two relationships rated special mention with an outstanding balance of \$7.0 million.

Total potential problem loans, including impaired loans, were \$38.9 million at December 31, 2019, comprised of special mention, substandard and doubtful loans of \$30.3 million, \$6.8 million and \$1.8 million, respectively. Total potential problem loans, including impaired loans, were \$20.6 million at December 31, 2018, comprised of special mention, substandard and doubtful loans of \$14.3 million, \$4.2 million and \$2.1 million, respectively. Special mention and substandard loans increased \$16.0 million and \$2.6 million, respectively, at December 31, 2019 as compared to December 31, 2018, partially offset by a decrease of \$252,000 in loans classified as doubtful. The increase in loans classified as special mention was primarily due to a \$15.8 million increase in commercial loans, due to the addition of two relationships outstanding comprised of thirteen loans with an outstanding balance of \$11.9 million. The increase in loans classified as substandard was primarily due to a \$1.6 million increase in commercial loans, due to the addition of one relationship outstanding comprised of seven loans with an outstanding balance of \$1.8 million.

The Company measures delinquency based on the amount of past due loans as a percentage of total loans. The ratio of delinquent loans to total loans increased to 2.09% at December 31, 2019 as compared to 1.81% at December 31, 2018. Delinquent loans increased \$5.1 million year-over-year, primarily due to an increase of \$4.2 million in delinquent commercial loans. At December 31, 2019, there were \$16.3 million in loans past due including \$9.7 million, \$1.4 million and \$5.2 million in loans 30-59 days, 60-89 days, and 90 days and over past due, respectively. At December 31, 2018, there were \$11.2 million in loans past due including \$8.1 million, \$1.1 million and \$2.0 million in loans 30-59 days, 60-89 days, and 90 days and over past due, respectively.

The increase of \$5.1 million in total loans past due at December 31, 2019, as compared to December 31, 2018, was primarily due to an increase of \$3.1 million, \$1.7 million, and \$269,000 in loans 90 days and over past due, 30-59 days past due, and 60-89 days past due, respectively. The increase in loans 90 days and over past due was primarily due to an increase of \$1.9 million in commercial real estate loans. At December 31, 2019 there were eight loans with an outstanding balance of \$2.3 million that were 90 days and over past due, while at December 31, 2018, there were three loans with an outstanding balance of \$323,000. The increase in loans 30-59 days past due was primarily due to an increase of \$3.4 million in commercial lines of credit and a \$1.9 million increase in commercial and industrial loans, partially offset by a decrease of \$3.3 million in commercial real estate loans 30-59 days delinquent. The increase in loans 60-89 days past due was primarily due to an increase of \$271,000 in commercial and industrial loans 60-89 days delinquent, a \$239,000 increase in residential loans 60-89 days delinquent, partially offset by a \$264,000 decrease in commercial real estate loans 60-89 days delinquent.

The ratio of the allowance to loan losses to year end loans at December 31, 2019 was 1.11% as compared to 1.18% at December 31, 2018.

Loans purchased outside of the Bank's general market area are subject to substantial prepurchase due diligence. Homogenous pools of purchased loans are subject to prepurchase analyses led by a team of the Bank's senior executives and credit analysts. In each case, the Bank's analytical processes consider the types of loans being evaluated, the underwriting criteria employed by the originating entity, the historical performance of such loans, especially in the most recent deeply recessionary period, the collateral enhancements and other credit loss mitigation factors offered by the seller and the capabilities and financial stability of the servicing entities involved. From a credit risk perspective, these loan pools also benefit from broad diversification, including wide geographic dispersion, the readily-verifiable historical performance of similar loans issued by the originators, as well as the overall experience and skill of the underwriters and servicing entities involved as counterparties to the Bank in these transactions. The performance of all

purchased loan pools are monitored regularly from detailed reports and remittance reconciliations provided at least monthly by the servicing entities.

The projected credit losses related to purchased loan pools are evaluated prior to purchase and the performance of those loans against expectations are analyzed at least monthly. Over the life of the purchased loan pools, the allowance for loan losses is adjusted, through the provision for loan losses, for expected loss experience, over the projected life of the loans. The expected credit loss experience is determined at the time of purchase and is modified, to the extent necessary, during the life of the purchased loan pools. The Bank does not initially increase the allowance for loan losses on the purchase date of the loan pools.

In the normal course of business, the Bank has, from time to time, sold residential mortgage loans and participation interests in commercial loans. As is typical in the industry, the Bank makes certain representations and warranties to the buyer. Pathfinder Bank maintains a quality control program for closed loans and considers the risks and uncertainties associated with potential repurchase requirements to be minimal.

Allowance for Loan Losses

The allowance for loan losses is established through provision for loan losses and reduced by loan charge-offs net of recoveries. The allowance for loan losses represents the amount available for probable credit losses in the Company's loan portfolio as estimated by management. In its assessment of the qualitative factors used in arriving at the required allowance for loan losses, management considers changes in national and local economic trends, the rate of the portfolios' growth, trends in delinquencies and nonaccrual balances, changes in loan policy, and changes in management experience and staffing. These factors, coupled with the recent historical loss experience within the loan portfolio by product segment support the estimable and probable losses within the loan portfolio.

The Company establishes a specific allocation for all commercial loans identified as being impaired with a balance in excess of \$100,000 that are also on nonaccrual or have been risk rated under the Company's risk rating system as substandard, doubtful, or loss. The measurement of impaired loans is based upon either the present value of future cash flows discounted at the historical effective interest rate or the fair value of the collateral, less costs to sell for collateral dependent loans. At December 31, 2019, the Bank's position in impaired loans consisted of 49 loans totaling \$7.5 million. Of these loans, 18 loans, totaling \$1.4 million, were valued using the present value of future cash flows method; and 31 loans, totaling \$6.1 million, were valued based on a collateral analysis. The Company uses the fair value of collateral, less costs to sell to measure impairment on commercial and commercial real estate loans. Residential real estate loans in excess of \$300,000 will also be included in this individual loan review. Residential real estate loans less than this amount will be included in impaired loans if it is part of the total related credit to a previously identified impaired commercial loan. The Company also establishes a specific allowance, regardless of the size of the loan, for all loans subject to a troubled debt restructuring agreement.

The allowance for loan losses at December 31, 2019 and 2018 was \$8.7 million and \$7.3 million, or 1.11% and 1.18% of total year end loans, respectively. The Company recorded \$603,000 in net charge-offs in 2019 as compared to \$1.3 million in net charge-offs in 2018. The ratio of net charge-offs to average loans decreased to 0.09% in 2019 from 0.22% in 2018. The decrease in the year-over-year charge-off rate was due primarily to the charge-off in 2018 of a single fully-reserved commercial real estate loan in the amount of \$596,000 and the charge-off of a single fully-reserved commercial and industrial loan in the amount of \$124,000.

For further discussion of our allowance for loan losses procedures, please see "Business-Allowance for Loan Losses" and in Note 6 to the consolidated financial statements contained in this Annual Report on Form 10-K.

The following table sets forth the allocation of allowance for loan losses by loan category for the years indicated. The allocation of the allowance by category is not necessarily indicative of future losses and does not restrict the use of the allowance to absorb losses in any category.

	2019		2018		2017		2016		2015	
	Allocation of the Allowance	Percent of Loans to Total Loans	Allocation of the Allowance	Percent of Loans to Total Loans	Allocation of the Allowance	Percent of Loans to Total Loans	Allocation of the Allowance	Percent of Loans to Total Loans	Allocation of the Allowance	Percent of Loans to Total Loans
<i>(Dollars in thousands)</i>										
Residential real estate	\$ 580	27.2%	\$ 766	38.5%	\$ 865	38.2%	\$ 759	42.0%	\$ 581	44.0%
Commercial real estate	4,010	32.6%	3,578	34.3%	3,589	33.2%	2,935	30.6%	2,983	30.1%
Commercial and tax exempt	2,841	19.0%	2,016	18.8%	1,950	19.2%	2,056	21.0%	1,674	19.3%
Home equity and junior liens	553	6.0%	409	4.3%	514	4.5%	331	5.1%	350	5.5%
Consumer loans	413	10.6%	385	4.1%	208	4.9%	166	1.3%	118	1.1%
Unallocated ⁽¹⁾	272	4.6%	152	-	-	-	-	-	-	-
Total	\$ 8,669	100.0%	\$ 7,306	100.0%	\$ 7,126	100.0%	\$ 6,247	100.0%	\$ 5,706	100.0%

⁽¹⁾ Includes loans held-for-sale at December 31, 2019. There were no loans classified as held for sale at December 31, 2018, 2017, 2016 and 2015.

The following table sets forth the allowance for loan losses for the years indicated and related ratios:

<i>(Dollars In thousands)</i>	2019	2018	2017	2016	2015
Balance at beginning of year	\$ 7,306	\$ 7,126	\$ 6,247	\$ 5,706	\$ 5,349
Provisions charged to operating expenses	1,966	1,497	1,769	953	1,350
Recoveries of loans previously charged-off:					
Commercial real estate and loans	1	66	15	31	48
Consumer and home equity	60	58	46	63	69
Residential real estate	2	21	13	13	40
Total recoveries	63	145	74	107	157
Loans charged off:					
Commercial real estate and loans	(294)	(952)	(587)	(69)	(787)
Consumer and home equity	(361)	(265)	(211)	(208)	(129)
Residential real estate	(11)	(245)	(166)	(242)	(234)
Total charged-off	(666)	(1,462)	(964)	(519)	(1,150)
Net charge-offs	(603)	(1,317)	(890)	(412)	(993)
Balance at end of year	\$ 8,669	\$ 7,306	\$ 7,126	\$ 6,247	\$ 5,706
Net charge-offs to average loans outstanding	0.09%	0.22%	0.16%	0.09%	0.25%
Allowance for loan losses to year-end loans	1.11%	1.18%	1.23%	1.27%	1.33%

Bank Owned Life Insurance

The Company held \$17.4 million and \$16.9 million in bank owned life insurance at December 31, 2019 and 2018, respectively. Bank owned life insurance increased \$462,000, or 2.7%, to \$17.4 million at December 31, 2019, as compared to December 31, 2018. The increase was primarily due to the increase in the cash value of the policies recorded as income in 2019.

Deposits

The Company's deposit base is drawn from ten full-service offices in its market area. The deposit base consists of demand deposits, money management and money market deposit accounts, savings, and time deposits. Average deposits increased \$81.1 million, or 11.0%, in 2019. For the year ended December 31, 2019, 55.7% of the Company's average deposit base of \$822.2 million consisted of core deposits. Core deposits, which exclude time deposits, are considered to be more stable and provide the Company with a lower cost of funds than time deposits. The Company will continue to emphasize retail and business core deposits by providing depositors with a full range of deposit product offerings and will maintain its recent focus on deposit gathering within the Syracuse market.

At December 31, 2019, consumer deposits and municipal deposits increased \$44.8 million and \$17.0 million, respectively, partially offset by a decrease in business deposits of \$4.3 million, when compared to December 31, 2018. The increase in consumer deposits reflected the Bank's increased market penetration among non-business customers, particularly in northern Onondaga County, driven by the Bank's focused marketing initiatives. The increase in municipal deposits was driven by seasonally-normal strong deposit inflows related to the Bank's municipal depositor relationships. The decrease in business deposits was related to a variety of factors involving the activities of certain large business customers and was considered by management to be to be transitory in nature.

Total deposits of \$881.9 million at December 31, 2019 consisted in part of \$136.5 million in brokered money market and certificates of deposit accounts. Brokered deposits represented 15.5% of all deposits at December 31, 2019. Total deposits of \$727.1 million at December 31, 2018 consisted in part of \$41.4 million in brokered money market and certificates of deposit accounts. Brokered deposit represented 5.7% of all deposits at December 31, 2018.

The following table sets forth our deposit composition in dollar amount and as a percentage of total deposits.

<i>(Dollars in thousands)</i>	December 31,					
	2019		2018		2017	
Savings accounts	\$ 81,926	9.3%	\$ 80,545	11.1%	\$ 80,587	11.1%
Time accounts	301,193	34.2%	199,598	27.4%	160,736	22.2%
Time accounts of \$250,000 or more	120,450	13.7%	77,224	10.6%	52,691	7.3%
Money management accounts	14,388	1.6%	13,180	1.8%	14,905	2.1%
MMDA accounts	185,402	21.0%	189,679	26.1%	253,088	35.0%
Demand deposit interest-bearing	64,533	7.3%	57,407	7.9%	66,093	9.1%
Demand deposit noninterest-bearing	107,501	12.2%	103,124	14.2%	89,783	12.4%
Mortgage escrow funds	6,500	0.7%	6,303	0.9%	5,720	0.8%
Total Deposits	\$ 881,893	100.0%	\$ 727,060	100.0%	\$ 723,603	100.0%

At December 31, 2019, time deposit accounts in excess of \$100,000 totaled \$315.3 million, or 74.8% of time deposits and 35.8% of total deposits. At December 31, 2018, these deposits totaled \$156.8 million, or 56.6% of time deposits and 21.6% of total deposits.

The following table indicates the amount of the Company's time deposit accounts of \$100,000 or more by time remaining until maturity as of December 31, 2019:

<i>(In thousands)</i>	
Remaining Maturity:	
Three months or less	\$ 187,610
Three through six months	71,532
Six through twelve months	35,010
Over twelve months	21,153
Total	\$ 315,305

Borrowings

Borrowings are comprised primarily of advances and overnight borrowing at the FHLB NY.

The following table represents information regarding short-term borrowings for the years ended December 31:

<i>(Dollars in thousands)</i>	2019	2018	2017
Maximum outstanding at any month end	\$ 39,038	\$ 39,000	\$ 41,600
Average amount outstanding during the year	14,835	13,556	31,268
Balance at the end of the period	25,138	39,000	30,600
Average interest rate during the year	2.54%	1.63%	1.34%
Average interest rate at the end of the period	1.80%	2.15%	1.32%

The following table represents information regarding long-term borrowings for the years ended December 31:

<i>(Dollars in thousands)</i>	2019	2018	2017
Maximum outstanding at any month end	\$ 70,514	\$ 79,534	\$ 43,288
Average amount outstanding during the year	64,011	58,316	38,276
Balance at the end of the period	67,987	79,534	43,288
Average interest rate during the year	2.46%	2.00%	1.55%
Average interest rate at the end of the period	2.52%	2.32%	1.68%

Subordinated Loans

The Company has a non-consolidated subsidiary trust, Pathfinder Statutory Trust II, of which the Company owns 100% of the common equity. The Trust issued \$5,000,000 of 30-year floating rate Company-obligated pooled capital securities of Pathfinder Statutory Trust II (“Floating-Rate Debentures”). The Company borrowed the proceeds of the capital securities from its subsidiary by issuing floating rate junior subordinated deferrable interest debentures having substantially similar terms. The capital securities mature in 2037 and are treated as Tier 1 capital by the FDIC and FRB. The capital securities of the trust are a pooled trust preferred fund of Preferred Term Securities VI, Ltd., whose interest rate resets quarterly, and are indexed to the 3-month LIBOR rate plus 1.65%. These securities have a five-year call provision. The Company paid \$213,000 and \$199,000 in interest expense related to this issuance in 2019 and 2018, respectively. The Company guarantees all of these securities.

As currently scheduled, The United Kingdom’s Financial Conduct Authority (“FCA”), the organization responsible for regulating LIBOR, will cease publishing LIBOR indices at the end of 2021. The Alternative Reference Rates Committee (the “ARRC”), formed by the FRB and the Federal Reserve Bank of New York, has been charged with developing an alternative rate that will replace LIBOR in the United States (U.S. dollar-denominated LIBOR). The ARRC has identified the Secured Overnight Financing Rate (“SOFR”) as the rate that represents best practice for use in U.S. dollar-denominated LIBOR derivatives and other financial contracts. Accordingly, SOFR currently represents the ARRC’s preferred alternative to LIBOR. However, the replacement of LIBOR is a highly complex task due to the large number and aggregate magnitude of currently-outstanding LIBOR-based contracts, as well as the broad range of users of these indices. As a result, there are a number of significant objections to the adoption of the SOFR index that have been brought forth for consideration by a wide-range of entities. Management has analyzed the Company’s aggregate exposure to instruments that are indexed to LIBOR (including the Company’s acquired loan participations, fixed-income investments, hedging instruments and the Floating-Rate Debentures) and concluded that the adoption of SOFR, or another similar index that may ultimately be promulgated by the ARRC, will not materially impact the Company or the results of its operations.

The Company’s equity interest in the trust subsidiary is included in other assets on the Consolidated Statements of Financial Condition at December 31, 2019 and 2018. For regulatory reporting purposes, the Federal Reserve has indicated that the preferred securities will continue to qualify as Tier 1 Capital subject to previously specified limitations, until further notice. If regulators make a determination that Trust Preferred Securities can no longer be considered in regulatory capital, the securities become callable and the Company may redeem them at its discretion.

On October 15, 2015, the Company executed a \$10.0 million non-amortizing Subordinated Loan with an unrelated third party that is scheduled to mature on October 1, 2025. The Company has the right to prepay the Subordinated Loan at any time after October 15, 2020 without penalty. The annual interest rate charged to the Company will be 6.25% through the maturity date of the subordinated loan. The Subordinated Loan is senior in the Company’s credit repayment hierarchy only to the Company’s common equity and preferred stock, and, as a result, qualifies as Tier 2 capital for all future periods when applicable. The Company paid \$172,000 in origination and legal fees as part of this transaction. These fees will be amortized over the life of the Subordinated Loan through its first call date using the effective interest method. The effective cost of funds related to this transaction is 6.44% calculated under this method. Accordingly, interest expense of \$650,000 and \$647,000 were recorded in the years ended December 31, 2019 and 2018, respectively.

Capital

The Company’s shareholders’ equity increased \$26.2 million, or 40.8%, to \$90.4 million at December 31, 2019 from \$64.2 million at December 31, 2018. This increase was primarily due to a \$20.2 million increase in additional paid in capital, a \$3.1 million decrease in comprehensive loss, a \$2.7 million increase in retained earnings, and a \$179,000 increase in ESOP shares earnings. Additional paid in capital increased as a result of the proceeds received from the Private Placement of common and preferred shares that took place in May 2019. Comprehensive loss decreased primarily as the result of the appreciation in the fair market value of our available-for-sale investment securities during 2019. The increase in retained earnings resulted from \$4.3 million in net income recorded in 2019. Partially offsetting the increase in retained earnings was \$1.1 million in cash dividends declared on our common stock, \$208,000 in cash dividends declared on our preferred stock, and \$23,000 in cash dividends declared on our issued warrant. In addition, retained earnings was further reduced by a \$239,000 one-time adjustment, at January 1, 2019, related to the cumulative effect of the capitalization of the operating lease right-of-use-assets based on the adoption of ASU 2016-02 - Leases (Topic 842).

Risk-based capital provides the basis for which all banks are evaluated in terms of capital adequacy. Capital adequacy is evaluated primarily by the use of ratios which measure capital against total assets, as well as against total assets that are weighted based on defined risk characteristics. The Company’s goal is to support growth and expansion activities, while maintaining a strong capital position and exceeding regulatory standards. At December 31, 2019, the Bank exceeded all regulatory required minimum capital ratios and met the regulatory definition of a “well-capitalized” institution. See “Supervision and Regulation – Federal Regulations – Capital Requirements.”

As a result of the Dodd-Frank Act, the Company's ability to raise new capital through the use of trust preferred securities may be limited because these securities will no longer be included in Tier 1 capital. In addition, our ability to generate or originate additional revenue producing assets may be constrained in the future in order to comply with capital standards required by federal regulation. See Note 20 to the consolidated financial statements contained herein and the regulation and supervision section within Part I of this Annual Report on Form 10-K for further discussion on regulatory capital requirements.

The Bank is subject to various regulatory capital requirements administered by the federal banking agencies. 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 consolidated financial statements. Under capital adequacy guidelines and the regulatory framework for prompt corrective action, the Bank must meet specific capital guidelines that involve quantitative measures of its assets, liabilities, and certain off-balance sheet items as calculated under regulatory accounting practices. The capital amounts and classifications are also subject to qualitative judgments by the regulators about components, risk weightings, and other factors.

Quantitative measures established by regulation to ensure capital adequacy require the Bank to maintain amounts and ratios of total and Tier 1 capital (as defined in the regulations) to risk-weighted assets (as defined), and of Tier 1 capital (as defined) to average assets (as defined).

As of December 31, 2019, the Bank's most recent notification from the Federal Deposit Insurance Corporation categorized the Bank as "well-capitalized", under the regulatory framework for prompt corrective action. To be categorized as "well-capitalized", the Bank must maintain total risk-based, Tier 1 risk-based and Tier 1 leverage ratios. There are no conditions or events since that notification that management believes have changed the Bank's category.

The regulations also impose a "capital conservation buffer" consisting of 2.5% of common equity Tier 1 capital to risk-weighted assets above the amount necessary to meet its minimum risk-based capital requirements. The buffer is separate from the capital ratios required under the Prompt Corrective Action ("PCA") standards and imposes restrictions on dividend distributions and discretionary bonuses. In order to avoid these restrictions, the capital conservation buffer effectively increases the minimum the following capital to risk-weighted assets ratios: (1) Core Capital, (2) Total Capital and (3) Common Equity. The capital conservation buffer requirement is now fully implemented at 2.5% of risk-weighted assets as of January 1, 2019. At December 31, 2019, the Bank exceeded all current regulatory required minimum capital ratios, including the capital buffer requirements.

LIQUIDITY

Liquidity management involves the Company's ability to generate cash or otherwise obtain funds at reasonable rates to support asset growth, meet deposit withdrawals, maintain reserve requirements, and otherwise operate the Company on an ongoing basis. The Company's primary sources of funds are deposits, borrowed funds, amortization and prepayment of loans and maturities of investment securities and other short-term investments, and earnings and funds provided from operations. While scheduled principal repayments on loans are a relatively predictable source of funds, deposit flows and loan prepayments are greatly influenced by general interest rates, economic conditions and competition. The Company manages the pricing of deposits to maintain a desired deposit balance. In addition, the Company invests excess funds in short-term interest-earning and other assets, which provide liquidity to meet lending requirements.

The Company's liquidity has been enhanced by its ability to borrow from the FHLBNY, whose competitive advance programs and lines of credit provide the Company with a safe, reliable, and convenient source of funds. A significant decrease in deposits in the future could result in the Company having to seek other sources of funds for liquidity purposes. Such sources could include, but are not limited to, additional borrowings, brokered deposits, negotiated time deposits, the sale of "available-for-sale" investment securities, or the sale of loans. Such actions could result in higher interest expense costs and/or losses on the sale of securities or loans.

For the year ended December 31, 2019, cash and cash equivalents decreased by \$6.2 million. The Company reported net cash flows from financing activities of \$148.5 million generated principally by increased brokered deposit balances of \$95.1 million, increased customer deposit balances of \$59.7 million, and by net proceeds from the Private Placement offering totaling \$19.6 million. This was partially offset by an aggregate decrease in net cash of \$25.9 million from all other financing sources, including dividends paid to common and preferred shareholders, and the holder of the Warrant of \$1.2 million. Additionally, \$8.1 million was provided through operating activities. These cash flows were primarily invested in: (1) net increases in loans outstanding of \$162.1 million, and (2) \$174.6 million in purchases of investment securities in 2019.

Certificates of deposit due within one year of December 31, 2019 totaled \$386.9 million, representing 91.8% of certificates of deposit at December 31, 2019, an increase from 67.6% at December 31, 2018. We believe the large percentage of certificates of deposit that mature within one year reflect customers' hesitancy to invest their funds for long periods in the current low interest rate environment. If these maturing deposits do not remain with us, we will be required to seek other sources of funds, including other certificates of

deposit and borrowings. Depending on market conditions, we may be required to pay higher rates on such deposits or other borrowings than we currently pay on the certificates of deposit due on or before December 31, 2020.

The Company is a separate legal entity from the Bank and must provide for its own liquidity. In addition to its operating expenses, the Company is responsible for paying any dividends declared to its shareholders and making payments on its subordinated loans. The Company may repurchase shares of its common stock. The Company's primary sources of funds are the proceeds it retained from the Private Placement, interest and dividends on securities and dividends received from the Bank. The amount of dividends that the Bank may declare and pay to the Company in any calendar year, without prior regulatory approval, cannot exceed net income for that year to date plus retained net income (as defined) for the preceding two calendar years. The Company believes that this restriction will not have an impact on the Company's ability to meet its ongoing cash obligations. At December 31, 2019 and 2018, the Company had cash and cash equivalents of \$20.2 million and \$26.3 million, respectively.

The Bank has a number of existing credit facilities available to it. At December 31, 2019, total credit available under the existing lines of credit was approximately \$173.2 million at FHLBNY, the FRB, and two other correspondent banks. At December 31, 2019, the Company had \$93.1 million of the available lines of credit utilized, including encumbrances supporting the outstanding letters of credit, described above, on its existing lines of credit with the remainder of \$80.1 million available.

The Asset Liability Management Committee of the Company is responsible for implementing the policies and guidelines for the maintenance of prudent levels of liquidity. As of December 31, 2019, management reported to the board of directors that the Bank was in compliance with its liquidity policy guidelines.

OFF-BALANCE SHEET ARRANGEMENTS

The Bank is also a party to financial instruments with off-balance sheet risk in the normal course of business to meet the financing needs of its customers. These financial instruments include commitments to extend credit and standby letters of credit. At December 31, 2019, the Bank had \$133.9 million in outstanding commitments to extend credit and standby letters of credit. See Note 18 within the Notes to Consolidated Financial Statements contained herein.

ITEM 7A: QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not required of a smaller reporting company.

ITEM 8: FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Pathfinder Bancorp, Inc.**

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MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Securities Exchange Act of 1934, as amended. 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 policies or procedures may deteriorate. The Company's internal control over financial reporting is a process designed under the supervision of the Company's principal executive officer and principal financial officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's financial statements for external reporting purposes in accordance with United States generally accepted accounting principles.

Under the supervision and with the participation of management, including the Company's principal executive officer and principal financial officer, the Company conducted an evaluation of the effectiveness of its internal control over financial reporting based on the framework in *Internal Control – Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on its evaluation under that framework, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2019. In addition, based on our assessment, management has determined that there were no material weaknesses in the Company's internal controls over financial reporting.

This annual report does not include an attestation report of the Company's independent registered public accounting firm regarding internal control over financial reporting pursuant to the rules of the Dodd-Frank Act that exempts the Company from such attestation and requires only management's report.

/s/ Thomas W. Schneider

Thomas W. Schneider
President and Chief Executive Officer

/s/ Walter F. Rusnak

Walter F. Rusnak
Senior Vice President, Chief Financial Officer

Oswego, New York
March 23, 2020

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of
Pathfinder Bancorp, Inc.
Oswego, New York:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of condition of Pathfinder Bancorp, Inc. and subsidiaries (the “Company”) as of December 31, 2019 and 2018 and the related consolidated statements of income, comprehensive income, changes in shareholders’ equity and cash flows for each of the years in the two-year period ended December 31, 2019, and the related notes (collectively referred to as 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, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

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.

We have served as the Company’s auditor since 2011.

/s/ BONADIO & CO., LLP

Bonadio & Co., LLP
Pittsford, New York
March 23, 2020

Pathfinder Bancorp, Inc.
Consolidated Statements of Condition

<i>(In thousands, except share and per share data)</i>	December 31, 2019	December 31, 2018
ASSETS:		
Cash and due from banks	\$ 8,284	\$ 9,610
Interest-earning deposits (including restricted balances of \$0 and \$3,993, respectively)	11,876	16,706
Total cash and cash equivalents	20,160	26,316
Available-for-sale securities, at fair value	111,134	177,664
Held-to-maturity securities, at amortized cost (fair value of \$124,148 and \$53,769, respectively)	122,988	53,908
Marketable equity securities, at fair value	534	453
Federal Home Loan Bank stock, at cost	4,834	5,937
Loans	745,516	620,270
Loans held-for-sale ⁽¹⁾	35,935	-
Less: Allowance for loan losses	8,669	7,306
Loans receivable, net	772,782	612,964
Premises and equipment, net	22,699	20,623
Operating lease right-of-use assets	2,386	-
Accrued interest receivable	3,712	3,068
Foreclosed real estate	88	1,173
Intangible assets, net	149	165
Goodwill	4,536	4,536
Bank owned life insurance	17,403	16,941
Other assets	10,402	9,367
Total assets	\$ 1,093,807	\$ 933,115
LIABILITIES AND SHAREHOLDERS' EQUITY:		
Deposits:		
Interest-bearing	\$ 774,392	\$ 623,936
Noninterest-bearing	107,501	103,124
Total deposits	881,893	727,060
Short-term borrowings	25,138	39,000
Long-term borrowings	67,987	79,534
Subordinated loans	15,128	15,094
Accrued interest payable	396	304
Operating lease liabilities	2,650	-
Other liabilities	9,946	7,664
Total liabilities	1,003,138	868,656
Shareholders' equity:		
Preferred stock, par value \$0.01 per share; no liquidation preference; 10,000,000 and 0 shares authorized, respectively; 1,155,283 and 0 shares issued and outstanding, respectively	12	-
Common stock, par value \$0.01; 25,000,000 authorized shares; 4,709,238 and 4,362,328 shares issued and outstanding, respectively	47	44
Additional paid in capital	49,362	29,139
Retained earnings	44,839	42,114
Accumulated other comprehensive loss	(2,971)	(6,042)
Unearned ESOP	(855)	(1,034)
Total Pathfinder Bancorp, Inc. shareholders' equity	90,434	64,221
Noncontrolling interest	235	238
Total equity	90,669	64,459
Total liabilities and shareholders' equity	\$ 1,093,807	\$ 933,115

⁽¹⁾ Based on ASC 948, Mortgage Banking, loans shall be classified as held-for-sale once a decision has been made to sell the loans and shall be transferred to the held-for-sale category at lower of cost or fair value. The loans under contract to be sold had a principal balance of \$35.8 million and net deferred fees of \$146,000 at December 31, 2019. These loans were transferred at their amortized cost of \$35.9 million as of December 31, 2019, as the fair value of these loans was greater than the amortized cost.

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

Pathfinder Bancorp, Inc.
Consolidated Statements of Income

<i>(In thousands, except per share data)</i>	For the years ended	
	December 31, 2019	December 31, 2018
Interest and dividend income:		
Loans, including fees	\$ 34,035	\$ 28,426
Debt securities:		
Taxable	6,962	5,159
Tax-exempt	178	720
Dividends	279	259
Federal funds sold and interest earning deposits	304	246
Total interest and dividend income	41,758	34,810
Interest expense:		
Interest on deposits	10,713	6,812
Interest on short-term borrowings	377	221
Interest on long-term borrowings	1,575	1,165
Interest on subordinated loans	863	846
Total interest expense	13,528	9,044
Net interest income	28,230	25,766
Provision for loan losses	1,966	1,497
Net interest income after provision for loan losses	26,264	24,269
Noninterest income:		
Service charges on deposit accounts	1,391	1,148
Earnings and gain on bank owned life insurance	462	427
Loan servicing fees	211	170
Net gains (losses) on sales and redemptions of investment securities	329	(182)
Gains (losses) on marketable equity securities	81	(62)
Net gains on sales of loans and foreclosed real estate	64	50
Debit card interchange fees	657	576
Insurance agency revenue	844	840
Other charges, commissions & fees	878	868
Total noninterest income	4,917	3,835
Noninterest expense:		
Salaries and employee benefits	13,660	12,704
Building and occupancy	2,674	2,243
Data processing	2,339	1,924
Professional and other services	1,325	1,360
Advertising	962	920
FDIC assessments	421	492
Audits and exams	427	422
Insurance agency expense	816	875
Community service activities	620	541
Foreclosed real estate expenses	337	150
Other expenses	2,149	1,918
Total noninterest expenses	25,730	23,549
Income before income taxes	5,451	4,555
Provision for income taxes	1,165	546
Net income attributable to noncontrolling interest and Pathfinder Bancorp, Inc.	4,286	4,009
Net income (loss) attributable to noncontrolling interest	10	(22)
Net income attributable to Pathfinder Bancorp, Inc.	\$ 4,276	\$ 4,031
Convertible preferred stock dividends	208	-
Warrant dividends	23	-
Undistributed earnings allocated to participating securities	467	-
Net income available to common shareholders	\$ 3,578	\$ 4,031
Earnings per common share - basic	\$ 0.80	\$ 0.97
Earnings per common share - diluted	\$ 0.80	\$ 0.94
Dividends per common share	\$ 0.24	\$ 0.24

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

Pathfinder Bancorp, Inc.
Consolidated Statements of Comprehensive Income

<i>(In thousands)</i>	Years ended	
	December 31, 2019	December 31, 2018
Net Income	\$ 4,286	\$ 4,009
<u>Other Comprehensive Income (Loss)</u>		
<u>Retirement Plans:</u>		
Retirement plan net losses recognized in plan expenses	335	171
Plan gains (losses) not recognized in plan expenses	255	(1,432)
Net unrealized gain (loss) on retirement plans	590	(1,261)
<u>Unrealized holding gains (losses) on available-for-sale securities</u>		
Unrealized holding gains (losses) arising during the period	3,869	(1,991)
Reclassification adjustment for net (gains) losses included in net income	(329)	182
Net unrealized gains (losses) on available-for-sale securities	3,540	(1,809)
Accretion of net unrealized loss on securities transferred to held-to-maturity ⁽¹⁾	27	175
Other comprehensive income (loss), before tax	4,157	(2,895)
Tax effect	(1,086)	755
Other comprehensive income (loss), net of tax	3,071	(2,140)
Comprehensive income	\$ 7,357	\$ 1,869
Comprehensive income (loss), attributable to noncontrolling interest	\$ 10	\$ (22)
Comprehensive income attributable to Pathfinder Bancorp, Inc.	\$ 7,347	\$ 1,891
<u>Tax Effect Allocated to Each Component of Other Comprehensive Income (Loss)</u>		
Retirement plan net losses recognized in plan expenses	\$ (88)	\$ (45)
Plan gains (losses) not recognized in plan expenses	(67)	374
Unrealized holding gains (losses) arising during the period	(1,010)	520
Reclassification adjustment for net gains (losses) included in net income	86	(48)
Accretion of net unrealized loss on securities transferred to held-to-maturity ⁽¹⁾	(7)	(46)
Income tax effect related to other comprehensive income (loss)	\$ (1,086)	\$ 755

⁽¹⁾ The accretion of the unrealized holding losses in accumulated other comprehensive loss at the date of transfer at September 30, 2013 partially offsets the amortization of the difference between the par value and the fair value of the investment securities at the date of transfer, and is an adjustment of yield.

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

Pathfinder Bancorp, Inc.
Consolidated Statements of Changes in Shareholders' Equity
Years ended December 31, 2019 and December 31, 2018

<i>(In thousands, except share and per share data)</i>	Preferred Stock	Common Stock	Additional Paid in Capital	Retained Earnings	Accumulated Other Com- prehensive Loss	Unearned ESOP	Non- controlling Interest	Total
Balance, January 1, 2019	\$ -	\$ 44	\$ 29,139	\$ 42,114	\$ (6,042)	\$ (1,034)	\$ 238	\$ 64,459
Cumulative effect of change in measurement of operating leases ⁽²⁾	-	-	-	(239)	-	-	-	(239)
Net income	-	-	-	4,276	-	-	10	4,286
Other comprehensive income, net of tax	-	-	-	-	3,071	-	-	3,071
Proceeds of common stock private placement, net of expenses ⁽¹⁾	-	3	3,823	-	-	-	-	3,826
Proceeds of preferred stock private placement, net of expenses ⁽¹⁾	12	-	15,358	-	-	-	-	15,370
Effect of warrant issued from private placement ⁽¹⁾	-	-	373	-	-	-	-	373
ESOP shares earned (24,442 shares)	-	-	160	-	-	179	-	339
Restricted stock awards (18,709 shares)	-	-	-	-	-	-	-	-
Stock based compensation	-	-	291	-	-	-	-	291
Stock options exercised	-	-	218	-	-	-	-	218
Common stock dividends declared (\$0.24 per share)	-	-	-	(1,081)	-	-	-	(1,081)
Preferred stock dividends declared (\$0.18 per share)	-	-	-	(208)	-	-	-	(208)
Warrant dividends declared (\$0.18 per share)	-	-	-	(23)	-	-	-	(23)
Distributions from affiliates	-	-	-	-	-	-	(13)	(13)
Balance, December 31, 2019	\$ 12	\$ 47	\$ 49,362	\$ 44,839	\$ (2,971)	\$ (855)	\$ 235	\$ 90,669
Balance, January 1, 2018	\$ -	\$ 43	\$ 28,170	\$ 39,020	\$ (4,208)	\$ (1,214)	\$ 333	\$ 62,144
Cumulative effect of change in measurement of equity securities ⁽³⁾	-	-	-	53	(53)	-	-	-
Cumulative effect of change in investment securities transfer ⁽⁴⁾	-	-	-	-	359	-	-	359
Net income (loss)	-	-	-	4,031	-	-	(22)	4,009
Other comprehensive loss, net of tax	-	-	-	-	(2,140)	-	-	(2,140)
ESOP shares earned (24,442 shares)	-	-	195	-	-	180	-	375
Restricted stock units (14,490 shares)	-	-	-	-	-	-	-	-
Stock based compensation	-	-	398	-	-	-	-	398
Stock options exercised	-	1	384	-	-	-	-	385
Common stock dividends declared (\$0.24 per share)	-	-	-	(1,005)	-	-	-	(1,005)
Cumulative effect of affiliate capital allocation	-	-	(8)	15	-	-	(7)	-
Distributions from affiliates	-	-	-	-	-	-	(66)	(66)
Balance, December 31, 2018	\$ -	\$ 44	\$ 29,139	\$ 42,114	\$ (6,042)	\$ (1,034)	\$ 238	\$ 64,459

⁽¹⁾ On May 8, 2019, the Company entered into a Securities Purchase Agreement with an institutional investor, in which it sold: (i) 37,700 shares of the Company's common stock, (ii) 1,155,283 shares of a new series of preferred stock, Series B convertible perpetual preferred stock; and (iii) a warrant to purchase 125,000 shares of common stock in a private placement transaction. The Company also entered into Subscription Agreements with certain directors and executive officers of the Company as well as other accredited investors. Pursuant to the Subscription Agreements, the investors purchased an aggregate of 269,277 shares of common stock.

⁽²⁾ Cumulative effect of the adoption of ASU 2016-02, Leases (Topic 842), based on the difference in the right-of-use asset and lease liability as of January 1, 2019.

⁽³⁾ Cumulative effect of unrealized gain on marketable equity securities based on the adoption of ASU 2016-01 - Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Liabilities.

⁽⁴⁾ Cumulative effect of unrealized gains on the transfer of 52 investment securities from held-to-maturity classification to available-for-sale classification based on the adoption of ASU 2017-12: Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities.

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

Pathfinder Bancorp, Inc.
Consolidated Statements of Cash Flows

<i>(In thousands)</i>	For the years ended December 31,	
	2019	2018
OPERATING ACTIVITIES		
Net income attributable to Pathfinder Bancorp, Inc.	\$ 4,276	\$ 4,031
Adjustments to reconcile net income to net cash flows from operating activities:		
Provision for loan losses	1,966	1,497
Deferred income (benefit) tax	(16)	343
Amortization of operating leases	25	-
Proceeds from sales of loans	1,492	216
Originations of loans held-for-sale	(1,474)	(212)
Realized (gains) losses on sales, redemptions and calls of:		
Real estate acquired through foreclosure	(31)	(47)
Loans	(33)	(3)
Available-for-sale investment securities	(256)	171
Held-to-maturity investment securities	(73)	11
Premises and equipment	-	(8)
Marketable equity securities	(81)	-
Depreciation	1,520	1,180
Amortization of mortgage servicing rights	(3)	12
Amortization of deferred loan costs	(272)	321
Amortization of deferred financing from subordinated debt	34	35
Earnings and gain on bank owned life insurance	(462)	(427)
Net amortization of premiums and discounts on investment securities	1,269	1,656
Amortization of intangible assets	16	17
Stock based compensation and ESOP expense	630	773
Net change in accrued interest receivable	(644)	(21)
Pension plan contribution	-	(825)
Net change in other assets and liabilities	237	262
Net cash flows from operating activities	8,120	8,982
INVESTING ACTIVITIES		
Purchase of investment securities available-for-sale	(75,551)	(55,291)
Purchase of investment securities held-to-maturity	(88,892)	(28,452)
Purchase of Federal Home Loan Bank stock	(10,201)	(8,679)
Proceeds from redemption of Federal Home Loan Bank stock	11,304	6,597
Proceeds from maturities and principal reductions of investment securities available-for-sale	42,433	44,577
Proceeds from maturities and principal reductions of investment securities held-to-maturity	19,101	5,842
Proceeds from sales, redemptions and calls of:		
Available-for-sale investment securities	102,352	34,631
Held-to-maturity investment securities	635	953
Real estate acquired through foreclosure	1,664	744
Premise and equipment	-	14
Purchase of bank owned life insurance	-	(5,000)
Proceeds from bank owned life insurance	-	228
Net change in loans	(162,060)	(42,497)
Purchase of premises and equipment	(3,596)	(5,692)
Net cash flows from investing activities	(162,811)	(52,025)

FINANCING ACTIVITIES

Net change in demand deposits, NOW accounts, savings accounts, money management deposit accounts, MMDA accounts and escrow deposits	10,021	(43,969)
Net change in time deposits	49,708	65,525
Net change in brokered deposits	95,104	(18,099)
Net change in short-term borrowings	(13,862)	8,400
Payments on long-term borrowings	(31,227)	(2,000)
Proceeds from long-term borrowings	19,680	38,246
Proceeds from exercise of stock options	218	385
Cash dividends paid to common shareholders	(1,091)	(1,025)
Cash dividends paid to preferred shareholders	(139)	-
Cash dividends paid on warrants	(15)	-
Net proceeds from common stock private placement	4,199	-
Net proceeds from preferred stock private placement	15,370	-
Proceeds from finance lease transaction	572	-
Change in noncontrolling interest, net	(3)	(95)
Net cash flows from financing activities	148,535	47,368
Change in cash and cash equivalents	(6,156)	4,325
Cash and cash equivalents at beginning of period	26,316	21,991
Cash and cash equivalents at end of period	\$ 20,160	\$ 26,316

CASH PAID DURING THE PERIOD FOR:

Interest	\$ 13,436	\$ 8,925
Income taxes	750	662

NON-CASH INVESTING ACTIVITY

Real estate acquired in exchange for loans	548	1,420
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RESTRICTED CASH

Federal Reserve Bank Reserve Requirements included in interest earning deposits	-	3,993
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The accompanying notes are an integral part of the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations

The accompanying consolidated financial statements include the accounts of Pathfinder Bancorp, Inc. (the "Company") and its wholly owned subsidiary, Pathfinder Bank (the "Bank"). The Company is a Maryland corporation headquartered in Oswego, New York. On October 16, 2014, the Company completed its conversion from the mutual holding company structure and the related public offering and is now a stock holding company that is fully owned by the public. As a result of the conversion, the mutual holding company and former mid-tier holding company were merged into Pathfinder Bancorp, Inc. The primary business of the Company is its investment in Pathfinder Bank (the "Bank") which is 100% owned by the Company. The Bank has two wholly owned operating subsidiaries, Pathfinder Risk Management Company, Inc. ("PRMC") and Whispering Oaks Development Corp. All significant inter-company accounts and activity have been eliminated in consolidation. Although the Company owns, through its subsidiary PRMC, 51% of the membership interest in FitzGibbons Agency, LLC ("FitzGibbons"), the Company is required to consolidate 100% of FitzGibbons within the consolidated financial statements. The 49% of which the Company does not own is accounted for separately as noncontrolling interests within the consolidated financial statements. The Company received \$24.9 million in net proceeds from the sale of approximately 2.6 million shares of common stock as a result of the Conversion in October 2014. In October 2015, the Company executed the issuance of the \$10.0 million non-amortizing Subordinated Loan and subsequently used those proceeds in February 2016 to substantially fund the full retirement of \$13.0 million in SBLF Preferred stock. The Company received \$19.6 million in net proceeds from the sale of 37,700 shares of common stock and 1,155,283 shares of preferred stock as a result of the Private Placement in May 2019.

The Company has seven branch offices located in Oswego County, three branch offices in Onondaga County and one limited purpose office in Oneida County. The Company is primarily engaged in the business of attracting deposits from the general public in the Company's market area, and investing such deposits, together with other sources of funds, in loans secured by commercial real estate, business assets, one-to-four family residential real estate and investment securities.

Use of Estimates in the Preparation of Consolidated Financial Statements

The preparation of consolidated financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Management has identified the allowance for loan losses, deferred income taxes, pension obligations, the annual evaluation of the Company's goodwill for possible impairment and the evaluation of investment securities for other than temporary impairment and the estimation of fair values for accounting and disclosure purposes to be the accounting areas that require the most subjective and complex judgments, and as such, could be the most subject to revision as new information becomes available.

The Company is subject to the regulations of various governmental agencies. The Company also undergoes periodic examinations by the regulatory agencies which may subject it to further changes with respect to asset valuations, amounts of required loss allowances, and operating restrictions resulting from the regulators' judgments based on information available to them at the time of their examinations.

Significant Group Concentrations of Credit Risk

Most of the Company's activities are with customers located primarily in Oswego and Onondaga counties of New York State. A large portion of the Company's portfolio is centered in residential and commercial real estate. The Company closely monitors real estate collateral values and requires additional reviews of commercial real estate appraisals by a qualified third party for commercial real estate loans in excess of \$400,000. All residential loan appraisals are reviewed by an individual or third party who is independent of the loan origination or approval process and was not involved in the approval of appraisers or selection of the appraiser for the transaction, and has no direct or indirect interest, financial or otherwise in the property or the transaction. Note 4 discusses the types of securities that the Company invests in. Note 5 discusses the types of lending that the Company engages in. The Company does not have any significant concentrations to any one industry or customer.

Advertising

The Company generally follows the policy of charging the costs of advertising to expense as incurred. Expenditures for new marketing and advertising material designs and/or media content, related to specifically-identifiable marketing campaigns are capitalized and expensed over the estimated life of the campaign. Such periods of time are generally 12-24 months in duration and do not exceed 36 months.

Noncontrolling Interest

Noncontrolling interest represents the portion of ownership and profit or loss that is attributable to the minority owners of FitzGibbons.

Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, amounts due from banks and interest-bearing deposits (with original maturity of three months or less).

Investment Securities

The Company classifies investment securities as either available-for-sale or held-to-maturity. The Company does not hold any securities considered to be trading. Available-for-sale securities are reported at fair value, with net unrealized gains and losses reflected as a separate component of shareholders' equity, net of the applicable income tax effect. Held-to-maturity securities are those that the Company has the ability and intent to hold until maturity and are reported at amortized cost.

Gains or losses on investment security transactions are based on the amortized cost of the specific securities sold. Premiums and discounts on securities are amortized and accreted into income using the interest method over the period to maturity.

The Company records its investment in marketable equity securities ("MES") at fair value. Changes in the fair value of MES are recorded as additions to, or subtractions from, net income in the period that the change occurs. These changes in fair value are separately disclosed as gains (losses) on equity securities on the Consolidated Statements of Income.

Note 4 to the consolidated financial statements includes additional information about the Company's accounting policies with respect to the impairment of investment securities.

Federal Home Loan Bank Stock

Federal law requires a member institution of the Federal Home Loan Bank ("FHLB") system to hold stock of its district FHLB according to a predetermined formula. The stock is carried at cost.

Transfers of Financial Assets

Transfers of financial assets, including sales of loans and loan participations, are accounted for as sales when control over the assets has been surrendered. Control over transferred assets is deemed to be surrendered when (1) the assets have been isolated from the Company, (2) the transferee obtains the right (free of conditions that constrain it from taking advantage of that right) to pledge or exchange the transferred assets, and (3) the Company does not maintain effective control over the transferred assets through an agreement to repurchase them before their maturity.

Loans

The Company grants mortgage, commercial, municipal, and consumer loans to customers. Loans that management has the intent and ability to hold for the foreseeable future or until maturity or pay-off are stated at their outstanding unpaid principal balances, less the allowance for loan losses plus net deferred loan origination costs. The ability of the Company's debtors to honor their contracts is dependent upon the real estate and general economic conditions in the market area. Interest income is generally recognized when income is earned using the interest method. Nonrefundable loan fees received and related direct origination costs incurred are deferred and amortized over the life of the loan using the interest method, resulting in a constant effective yield over the loan term. Deferred fees are recognized into income and deferred costs are charged to income immediately upon prepayment of the related loan.

The loans receivable portfolio is segmented into residential mortgage, commercial and consumer loans. The residential mortgage segment consists of one-to-four family first-lien residential mortgages and construction loans. Commercial loans consist of the following classes: real estate, lines of credit, other commercial and industrial, and tax-exempt loans. Consumer loans include both home equity lines of credit and loans with junior liens and other consumer loans.

Allowance for Loan Losses

The allowance for loan losses represents management's estimate of losses inherent in the loan portfolio as of the date of the statement of condition and it is recorded as a reduction of loans. The allowance is increased by the provision for loan losses, and decreased by charge-offs, net of recoveries. Loans deemed to be uncollectible are charged against the allowance for loan losses, and subsequent

recoveries, if any, are credited to the allowance. All, or part, of the principal balance of loans receivable are charged off to the allowance as soon as it is determined that the repayment of all, or part, of the principal balance is highly unlikely. Non-residential consumer loans are generally charged off no later than 120 days past due on a contractual basis, unless productive collection efforts are providing results. Consumer loans may be charged off earlier in the event of bankruptcy, or if there is an amount that is deemed uncollectible. No portion of the allowance for loan losses is restricted to any individual loan product and the entire allowance is available to absorb any and all loan losses.

The allowance for loan losses is maintained at a level considered adequate to provide for losses that can be reasonably anticipated. Management performs a quarterly evaluation of the adequacy of the allowance. The allowance is based on three major components which are; specific components for larger loans, recent historical losses and several qualitative factors applied to a general pool of loans, and an unallocated component.

The first component is the specific component that relates to loans that are classified as impaired. For these loans, an allowance is established when the discounted cash flows or collateral value of the impaired loan is lower than the carrying value of that loan.

The second or general component covers pools of loans, by loan class, not considered impaired, smaller balance homogeneous loans, such as residential real estate, home equity and other consumer loans. These pools of loans are evaluated for loss exposure first based on historical loss rates for each of these categories of loans. The ratio of net charge-offs to loans outstanding within each product class, over the most recent eight quarters, lagged by one quarter, is used to generate the historical loss rates. In addition, qualitative factors are added to the historical loss rates in arriving at the total allowance for loan loss need for this general pool of loans. The qualitative factors include changes in national and local economic trends, the rate of growth in the portfolio, trends of delinquencies and nonaccrual balances, changes in loan policy, and changes in lending management experience and related staffing. Each factor is assigned a value to reflect improving, stable or declining conditions based on management's best judgment using relevant information available at the time of the evaluation. These qualitative factors, applied to each product class, make the evaluation inherently subjective, as it requires material estimates that may be susceptible to significant revision as more information becomes available. Adjustments to the factors are supported through documentation of changes in conditions in a narrative accompanying the allowance for loan loss analysis and calculation.

The third or unallocated component is maintained to cover uncertainties that could affect management's estimate of probable losses. The unallocated component of the allowance reflects the margin of imprecision inherent in the underlying assumptions used in the methodologies for estimating specific and general losses in the portfolio and generally comprises less than 10% of the total allowance for loan loss.

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. Factors considered by management in determining impairment include payment status, collateral value and the probability of collecting scheduled principal and interest payments when due. Loans that experience insignificant payment delays and payment shortfalls generally are not classified as impaired. Management determines the significance of payment delays and shortfalls on a case-by case basis, taking into consideration all of the circumstances surrounding the loan and the borrower, including the length and reason for the delay, the borrower's prior payment record and the amount of shortfall in relation to what is owed. Impairment is measured by either the present value of the expected future cash flows discounted at the loan's effective interest rate or the fair value of the underlying collateral, if the loan is collateral dependent. The majority of the Company's loans utilize the fair value of the underlying collateral.

An allowance for loan loss is established for an impaired loan if its carrying value exceeds its estimated fair value. The estimated fair values of substantially all of the Company's impaired loans are measured based on the estimated fair value of the loan's collateral. For loans secured by real estate, estimated fair values are determined primarily through third-party appraisals, less costs to sell. Appraised values are discounted to arrive at the estimated selling price of the collateral, which is considered to be the estimated fair value. The discounts also include estimated costs to sell the property.

For commercial and industrial loans secured by non-real estate collateral, such as accounts receivable, inventory and equipment, estimated fair values are determined based on the borrower's financial statements, inventory reports, accounts receivable agings or equipment appraisals or invoices. Indications of value from these sources are generally discounted based on the age of the financial information or the quality of the assets.

Large groups of homogeneous loans are collectively evaluated for impairment. Accordingly, the Company does not separately identify individual residential mortgage loans less than \$300,000, home equity and other consumer loans for impairment disclosures, unless such loans are related to borrowers with impaired commercial loans or they are subject to a troubled debt restructuring agreement. Loans that are related to borrowers with impaired commercial loans or are subject to a troubled debt restructuring agreement are evaluated individually for impairment.

Commercial loans whose terms are modified are classified as troubled debt restructurings if the Company grants such borrowers concessions and it is deemed that those borrowers are experiencing financial difficulty. Concessions granted under a troubled debt restructuring generally include but are not limited to a temporary reduction in the interest rate or an extension of a loan's stated maturity date. Commercial loans classified as troubled debt restructurings are designated as impaired and evaluated individually as discussed above.

The allowance calculation methodology includes further segregation of loan classes into risk rating categories. The borrower's overall financial condition, repayment sources, guarantors and value of the collateral, if appropriate, are evaluated not less than annually for commercial loans or when credit deficiencies arise on all loans. Credit quality risk ratings include regulatory classifications of special mention, substandard, doubtful and loss. See Note 5 for a description of these regulatory classifications.

In addition, Federal and State regulatory agencies, as an integral part of their examination process, periodically review the Company's allowance for loan losses and may require the Company to recognize additions to the allowance based on their judgments about information available to them at the time of their examination, which may not be currently available to management. Based on management's comprehensive analysis of the loan portfolio, management believes the current level of the allowance for loan losses is adequate.

Income Recognition on Impaired and Nonaccrual Loans

For all classes of loans receivable, the accrual of interest is discontinued when the contractual payment of principal or interest has become 90 days past due or management has serious doubts about further collectability of principal or interest, even though the loan may be currently performing. A loan may remain on accrual status if it is either well secured or guaranteed and in the process of collection. When a loan is placed on nonaccrual status, unpaid interest is reversed and charged to interest income. Interest received on nonaccrual loans, including impaired loans, generally is either applied against principal or reported as interest income, according to management's judgment as to the collectability of principal. Generally, loans are restored to accrual status when the obligation is brought current, has performed in accordance with the contractual terms for a reasonable period of time, generally six months, and the ultimate collectability of the total contractual principal and interest is no longer in doubt. Nonaccrual troubled debt restructurings are restored to accrual status if principal and interest payments, under the modified terms, are current for six consecutive months after modification.

For nonaccrual loans, when future collectability of the recorded loan balance is expected, interest income may be recognized on a cash basis. In the case where a nonaccrual loan had been partially charged off, recognition of interest on a cash basis is limited to that which would have been recognized on the recorded loan balance at the contractual interest rate. Cash interest receipts in excess of that amount are recorded as recoveries to the allowance for loan losses until prior charge-offs have been fully recovered.

Off-Balance Sheet Credit Related Financial Instruments

In the ordinary course of business, the Company has entered into commitments to extend credit, including commitments under standby letters of credit. Such financial instruments are recorded when they are funded.

Premises and Equipment

Premises and equipment are stated at cost, less accumulated depreciation. Depreciation is computed on a straight-line basis over the estimated useful lives of the related assets, ranging up to 40 years for premises and 10 years for equipment. Maintenance and repairs are charged to operating expenses as incurred. The asset cost and accumulated depreciation are removed from the accounts for assets sold or retired and any resulting gain or loss is included in the determination of income.

Foreclosed Real Estate

Physical possession of residential real estate property collateralizing a residential mortgage loan occurs when legal title is obtained upon completion of foreclosure or when the borrower conveys all interest in the property to satisfy the loan through completion of a deed-in-lieu of foreclosure or through a similar legal agreement. Properties acquired through foreclosure, or by deed-in-lieu of foreclosure, are recorded at their fair value less estimated costs to sell. Fair value is typically determined based on evaluations by third parties. Costs incurred in connection with preparing the foreclosed real estate for disposition are capitalized to the extent that they enhance the overall fair value of the property. Any write-downs on the asset's fair value less costs to sell at the date of acquisition are charged to the allowance for loan losses. Subsequent write downs and expenses of foreclosed real estate are included as a valuation allowance and recorded in noninterest expense.

Goodwill and Intangible Assets

Goodwill represents the excess cost of an acquisition over the fair value of the net assets acquired. Goodwill is not amortized, but is evaluated annually for impairment. Intangible assets, such as customer lists, are amortized over their useful lives, generally 15 years.

Mortgage Servicing Rights

Originated mortgage servicing rights are recorded at their fair value at the time of transfer of the related loans and are amortized in proportion to, and over the period of, estimated net servicing income or loss. The carrying value of the originated mortgage servicing rights is periodically evaluated for impairment or between annual evaluations under certain circumstances.

Stock-Based Compensation

Compensation costs related to share-based payment transactions are recognized based on the grant-date fair value of the stock-based compensation issued. Compensation costs are recognized over the period that an employee provides service in exchange for the award. Compensation costs related to the Employee Stock Ownership Plan are dependent upon the average stock price and the shares committed to be released to plan participants through the period in which income is reported.

Retirement Benefits

The Company has a non-contributory defined benefit pension plan that covered substantially all employees. On May 14, 2012, the Company informed its employees of its decision to freeze participation and benefit accruals under the plan, primarily to reduce some of the volatility in earnings that can accompany the maintenance of a defined benefit plan. The plan was frozen on June 30, 2012. Compensation earned by employees up to June 30, 2012 is used for purposes of calculating benefits under the plan but there will be no future benefit accruals after this date. Participants as of June 30, 2012 will continue to earn vesting credit with respect to their frozen accrued benefits as they continue to work. Pension expense under these plans is charged to current operations and consists of several components of net pension cost based on various actuarial assumptions regarding future experience under the plans.

Gains and losses, prior service costs and credits, and any remaining transition amounts that have not yet been recognized through net periodic benefit cost are recognized in accumulated other comprehensive loss, net of tax effects, until they are amortized as a component of net periodic cost. Plan assets and obligations are measured as of the Company's statement of condition date.

The Company has unfunded deferred compensation and supplemental executive retirement plans for selected current and former employees and officers that provide benefits that cannot be paid from a qualified retirement plan due to Internal Revenue Code restrictions. These plans are nonqualified under the Internal Revenue Code, and assets used to fund benefit payments are not segregated from other assets of the Company, therefore, in general, a participant's or beneficiary's claim to benefits under these plans is as a general creditor.

The Bank sponsors an Employee Stock Ownership Plan ("ESOP") covering substantially all full time employees. The cost of shares issued to the ESOP but not committed to be released to the participants is presented in the consolidated statement of condition as a reduction of shareholders' equity. ESOP shares are released to the participants on an annual basis in accordance with a predetermined schedule. The Company records ESOP compensation expense based on the shares committed to be released and allocated to the participant's accounts multiplied by the average share price of the Company's stock over the period. Dividends related to unallocated shares are recorded as compensation expense.

Derivative Financial Instruments

Derivatives are recorded on the statement of condition as assets and liabilities measured at their fair value. The accounting for changes in the fair value of a derivative depends on whether it has been designated and qualifies as part of a hedging relationship. The specific accounting treatment for increases and decreases in the value of derivatives depends upon the use of the specific derivatives. There are two primary types of interest rate derivatives that may be employed by the Company:

- *Fair Value Hedge* - As a result of interest rate fluctuations, fixed-rate assets and liabilities will appreciate or depreciate in fair value. When effectively hedged, this appreciation or depreciation will generally be offset by fluctuations in the fair value of derivative instruments that are linked to the hedged assets and liabilities. This strategy is referred to as a fair value hedge. For a fair value hedge, changes in the fair value of the derivative instrument and changes in the fair value of the hedged asset or liability are recognized currently in earnings.
- *Cash Flow Hedge* - Cash flows related to floating rate assets and liabilities will fluctuate with changes in the underlying rate index. When effectively hedged, the increases or decreases in cash flows related to the floating-rate asset or liability will

generally be offset by changes in cash flows of the derivative instruments designated as a hedge. This strategy is referred to as a cash flow hedge. For a cash flow hedge, changes in the fair value of the derivative instrument, to the extent that it is effective, are recorded in other comprehensive income and subsequently reclassified to earnings as the hedged transaction impacts net income. Any ineffective portion of a cash flow hedge is recognized currently in earnings.

Income Taxes

Provisions for income taxes are based on taxes currently payable or refundable and deferred income taxes on temporary differences between the tax basis of assets and liabilities and their reported amounts in the consolidated financial statements. Deferred tax assets and liabilities are reported in the consolidated financial statements at currently enacted income tax rates applicable to the period in which the deferred tax assets and liabilities are expected to be realized or settled.

Earnings Per Share

Basic net income per share was calculated using the two-class method by dividing net income (less any dividends on participating securities) by the weighted average number of shares of common stock and participating securities outstanding for the period. Diluted earnings per share may include the additional effect of other securities, if dilutive, in which case the dilutive effect of such securities is calculated by applying either the two-class method or the Treasury Stock method to the assumed exercise or vesting of potentially dilutive common shares. The method yielding the more dilutive result is ultimately reported for the applicable period. Potentially dilutive common stock equivalents primarily consist of employee stock options and restricted stock units. Unallocated common shares held by the ESOP are not included in the weighted average number of common shares outstanding for purposes of calculating earnings per common share until they are committed to be released to plan participants. Note 3 provides more information related to earnings per share.

Segment Reporting

The Company has evaluated the activities relating to its strategic business units. The controlling interest in the FitzGibbons Agency is dissimilar in nature and management when compared to the Company's other strategic business units which are judged to be similar in nature and management. The Company has determined that the FitzGibbons Agency is below the reporting threshold in size in accordance with Accounting Standards Codification 280. Accordingly, the Company has determined it has no reportable segments.

Comprehensive Income (Loss)

Accounting principles generally require that recognized revenue, expenses, gains and losses be included in net income. Although certain changes in assets and liabilities are reported as a separate component of the equity section of the statement of condition, such items, along with net income, are components of comprehensive income.

Accumulated other comprehensive loss represents the sum of these items, with the exception of net income, as of the balance sheet date and is represented in the table below.

	As of December 31,	
	2019	2018
Accumulated Other Comprehensive Loss By Component:		
Unrealized loss for pension and other postretirement obligations	\$ (3,677)	\$ (4,266)
Tax effect	960	1,114
Net unrealized loss for pension and other postretirement obligations	(2,717)	(3,152)
Unrealized loss on available-for-sale securities	(293)	(3,833)
Tax effect	77	1,001
Net unrealized loss on available-for-sale securities	(216)	(2,832)
Unrealized loss on securities transferred to held-to-maturity	(54)	(82)
Tax effect	16	24
Net unrealized loss on securities transferred to held-to-maturity	(38)	(58)
Accumulated other comprehensive loss	\$ (2,971)	\$ (6,042)

Reclassifications

Certain amounts in the 2018 consolidated financial statements have been reclassified to conform to the current year presentation. These reclassifications had no effect on net income as previously reported.

NOTE 2: NEW ACCOUNTING PRONOUNCEMENTS

The Financial Accounting Standards Board (“FASB”) and, to a lesser extent, other authoritative rulemaking bodies promulgate GAAP to regulate the standards of accounting in the United States. From time to time, the FASB issues new GAAP standards, known as Accounting Standards Updates (“ASUs”) some of which, upon adoption, may have the potential to change the way in which the Company recognizes or reports within its consolidated financial statements. The following presentation provides a description of standards that were adopted in 2019 and standards not yet adopted as of December 31, 2019, but could have an impact on the Company's consolidated financial statements upon adoption.

Standards Adopted in 2019

Standard: Leases (*ASU 2016-02: Leases [Topic 842]*)

Description: The new guidance requires lessees to record a right-of-use asset and a lease liability for all leases with a term greater than 12 months. While the guidance requires all leases to be recognized in the balance sheet, there continues to be a differentiation between finance leases and operating leases for purposes of income statement recognition and cash flow statement presentation. For finance leases, interest on the lease liability and amortization of the right-of-use asset will be recognized separately in the statement of income. Repayments of principal on those lease liabilities will be classified within financing activities and payments of interest on the lease liability will be classified within operating activities in the statement of cash flows. For operating leases, a single lease cost is recognized in the statement of income and allocated over the lease term, generally on a straight-line basis. All cash payments are presented within operating activities in the statement of cash flows. The accounting applied by lessors is largely unchanged from existing GAAP, however, the guidance eliminates the accounting model for leveraged leases for leases that commence after the effective date of the guidance.

Required Date of Implementation: January 1, 2019

Effect on Consolidated Financial Statements: The Company occupies certain banking offices and uses certain equipment under noncancelable operating lease agreements which were not reflected in its consolidated balance sheet at December 31, 2018. Upon adoption of this ASU on January 1, 2019, the Company recorded an asset of \$2.5 million and a corresponding liability of \$2.7 million, as a result of recognizing right-of-use assets and lease liabilities on its consolidated statement of financial condition. The Company elected to adopt the transition relief under Topic 842, Leases, using the modified retrospective transition method recognizing a cumulative effect adjustment to the opening balance of retained earnings of \$239,000. The periods presented prior to January 1, 2019 continue to be in accordance with ASC 840. Under the new lease standard, disclosures are required to meet the objective of enabling users of financial statements to assess the amount, timing, and uncertainty of cash flows arising from leases. The Company uses its incremental borrowing rate based on the information available in determining the present value of lease payments. We elected all applicable practical expedients and implemented internal controls and key system functionality to enable the preparation of financial information on adoption.

The Company owns certain properties that it leases to unaffiliated third parties at market rates. Lease rental income was \$34,000 and \$30,000 for the twelve months ended March 31, 2019 and 2018, respectively. All lease agreements are accounted for as operating leases. The Company has no unamortized initial direct costs related to the establishment of these lease agreements at January 1, 2019.

Standard: Premium Amortization on Purchased Callable Debt Securities (*ASU 2017-08: Receivables—Nonrefundable Fees and Other Costs [Subtopic 310-20]: Premium Amortization on Purchased Callable Debt Securities*)

Description: The amended guidance requires the premium on callable debt securities to be amortized to the earliest call date. The amendments do not require an accounting change for securities held at a discount; the discount continues to be amortized to maturity.

Required Date of Implementation: January 1, 2019

Effect on Consolidated Financial Statements: The Company has consistently employed accounting methodologies with respect to securities with purchased premiums that are consistent with the guidance provided in this Update. Accordingly, the adoption of this guidance had no material impact on the Company's consolidated financial statements.

Standard: Improvements to Nonemployee Share-Based Payment Accounting (*ASU 2018-07: Compensation - Stock Compensation [Topic 718]*)

Description: Consistent with the accounting requirement for employee share-based payment awards, under the new guidance, nonemployee share-based payment awards within the scope of Topic 718 are measured on the grant date at the grant-date fair value of the equity instruments that an entity is obligated to issue when the good has been delivered or the service has been rendered and any other conditions necessary to earn the right to benefit from the instruments have been satisfied. The amendments in this ASU affect all entities that enter into share-based payment transactions for acquiring goods and services from nonemployees.

Required Date of Implementation: January 1, 2019

Effect on Consolidated Financial Statements: The amendments should be applied using a prospective transition method. The Company is not currently party to any nonemployee share-based payment awards whereby the participant is obligated to any specific performance requirement other than to remain in the service of the Company through a specified vesting date, or schedule of vesting dates. Accordingly, the adoption of this ASU had no material impact on the Company's consolidated financial statements.

Standards Not Yet Adopted as of December 31, 2019

Standard: Measurement of Credit Losses on Financial Instruments (*ASU 2016-13: Financial Instruments—Credit Losses [Topic 326]: Measurement of Credit Losses on Financial Instruments*)

Description: The amended guidance replaces the current incurred loss model for determining the allowance for credit losses. The guidance requires financial assets measured at amortized cost to be presented at the net amount expected to be collected. The allowance for credit losses will represent a valuation account that is deducted from the amortized cost basis of the financial assets to present their net carrying value at the amount expected to be collected. The income statement will reflect the measurement of credit losses for newly recognized financial assets as well as expected increases or decreases of expected credit losses that have taken place during the period. When determining the allowance, expected credit losses over the contractual term of the financial asset(s) (taking into account prepayments) will be estimated considering relevant information about past events, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. The amended guidance also requires recording an allowance for credit losses for purchased financial assets with a more-than-insignificant amount of credit deterioration since origination. The initial allowance for these assets will be added to the purchase price at acquisition rather than being reported as an expense. Subsequent changes in the allowance will be recorded through the income statement as an expense adjustment. In addition, the amended guidance requires credit losses relating to available-for-sale debt securities to be recorded through an allowance for credit losses. The calculation of credit losses for available-for-sale securities will be similar to how it is determined under existing guidance.

Required Date of Implementation: January 1, 2023 (early adoption permitted as of January 1, 2019).

Effect on Consolidated Financial Statements: The Company is assessing the new guidance to determine what modifications to existing credit estimation processes may be required. The new guidance is complex and management is still evaluating the preliminary output from models that have been developed during this evaluative phase. In addition, future levels of allowances will also reflect new requirements to include estimated credit losses on investment securities classified as held-to-maturity, if any. The Company has formed an Implementation Committee, whose membership includes representatives of senior management, to develop plans that will encompass: (1) internal methodology changes (2) data collection and management activities, (3) internal communication requirements, and (4) estimation of the projected impact of this guidance. It has been generally assumed that the conversion from the incurred loss model, required under current GAAP, to the CECL methodology will, more likely than not, result in increases to the allowances for credit losses at many financial institutions. However, the amount of any change in the allowance for credit losses resulting from the new guidance will ultimately be impacted by the provisions of this guidance as well as by the loan and debt security portfolios composition and asset quality at the adoption date, and economic conditions and forecasts at the time of adoption. The amendments in this Update should be applied on a modified retrospective basis by means of a cumulative-effect adjustment to the opening retained earnings balance in the statement of financial position as of the date that an entity adopted the amendments in Update 2016-13.

Standard: Transition Relief for the Implementation of ASU-2016-13 (*ASU 2019-5: Financial Instruments—Credit Losses [Topic 326]: Targeted Transition Relief*)

Description: The amendments in this ASU provide entities that have certain instruments within the scope of Subtopic 326-20, Financial Instruments—Credit Losses— Measured at Amortized Cost, with an option to irrevocably elect the fair value option in Subtopic 825-10, Financial Instruments—Overall, applied on an instrument-by-instrument basis for eligible instruments, upon adoption of Topic 326. The fair value option election does not apply to held-to-maturity debt securities. An entity that elects the fair value option should subsequently apply the guidance in Subtopics 820-10, Fair Value Measurement—Overall, and 825-10. General guidance for the use of the fair value option is contained in Subtopic 825-10. The irrevocable election of the fair value option must be applied on an instrument-by-instrument basis for eligible instruments, whose characteristics are within the scope of Subtopic 326-20. Upon adoption of Topic 326, for items measured at fair value in accordance with paragraph 326-10-65-1(i), the difference between the carrying amount and the fair value shall be recorded by means of a cumulative-effect adjustment to the opening retained earnings balance as of the beginning of the first reporting period that an entity has adopted ASU 2016-13. Those differences may include, but are not limited to: (1) unamortized deferred costs, fees, premiums, and discounts (2) valuation allowances (for example, allowance for loan losses), or (3) accrued interest.

Required Date of Implementation: See comments above related to ASU 2016-13.

Effect on Consolidated Financial Statements: See comments above related to ASU 2016-13.

Standard: Simplifying the Test for Goodwill Impairment (*ASU 2017-04: Intangibles—Goodwill and Other [Topic 350]: Simplifying the Test for Goodwill Impairment*)

Description: Current guidance requires a two-step approach to determining if recorded goodwill is impaired. In Step 1, reporting entities must first evaluate whether or not the carrying value of a reporting unit is greater than its fair value. In Step 2, if a reporting unit's carrying value is greater than its fair value, then the entity should calculate the implied fair value of goodwill. If the carrying value of goodwill is more than the implied fair value, an impairment charge for the difference must be recorded. The amended guidance eliminates Step 2 from the goodwill impairment test. Therefore, under the new guidance, if the carrying value of a reporting unit is greater than its fair value, a goodwill impairment charge will be recorded for the difference (up to the carrying value of the recorded goodwill).

Required Date of Implementation: January 1, 2020 (early adoption permitted).

Effect on Consolidated Financial Statements: The amendments should be applied using a prospective transition method. The Company does not expect the guidance will have a material impact on its consolidated financial statements, unless at some point in the future one of its reporting units were to fail Step 1 of the goodwill impairment test.

Standard: Fair Value Measurement (*ASU 2018-13: Fair Value Measurement [Topic 820]: Disclosure Framework Changes to the Disclosure Requirements for Fair Value Measurement*)

Description: The FASB is issuing the amendments in this ASU as part of the disclosure framework project. The disclosure framework project's objective and primary focus are to improve the effectiveness of disclosures in the notes to financial statements by facilitating clear communication of the information required by GAAP that is most important to users of each entity's financial statements. The amendments in this ASU modify the disclosure requirements for entities such as the Company on fair value measurements in Topic 820, Fair Value Measurement.

The following disclosure requirements were removed from Topic 820:

1. The amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy.
2. The policy for timing of transfers between levels.
3. The valuation processes for Level 3 fair value measurements.

The following disclosure requirements were modified in Topic 820:

1. For investments in certain entities that calculate net asset value, an entity is required to disclose the timing of liquidation of an investee's assets and the date when restrictions from redemption might lapse only if the investee has communicated the timing to the entity or announced the timing publicly.
2. The amendments clarify that the measurement uncertainty disclosure is to communicate information about the uncertainty in measurement as of the reporting date.

The following disclosure requirements were added to Topic 820:

1. The changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period.
2. The range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. For certain unobservable inputs, an entity may disclose other quantitative information (such as the median or arithmetic average) in lieu of the weighted average if the entity determines that other quantitative information would be a more reasonable and rational method to reflect the distribution of unobservable inputs used to develop Level 3 fair value measurements.

Required Date of Implementation: The amendments in this ASU are effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and the narrative description of measurement uncertainty should be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively to all periods presented upon their effective date. Early adoption is permitted upon issuance of this Update. An entity is permitted to early adopt any removed or modified disclosures upon issuance of this ASU and delay adoption of the additional disclosures until their effective date.

Effect on Consolidated Financial Statements: The Company does not expect the new guidance will have a material impact to its consolidated statements of condition or income.

Standard: *Compensation (ASU 2018-14: Compensation - Retirement Benefits - Defined Benefit Plans - General [Subtopic 715 – 20]: Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans)*

Description: The FASB is issuing the amendments in this ASU as part of the disclosure framework project. The amendments in this ASU modify the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans.

The following disclosure requirements are removed from Subtopic 715-20:

1. The amounts in accumulated other comprehensive income expected to be recognized as components of net periodic benefit cost over the next fiscal year.
2. The amount and timing of plan assets expected to be returned to the employer.
3. Related party disclosures about the amount of future annual benefits covered by insurance and annuity contracts and significant transactions between the employer or related parties and the plan.
4. The effects of a one-percentage-point change in assumed health care cost trend rates on the (a) aggregate of the service and interest cost components of net periodic benefit costs and (b) benefit obligation for postretirement health care benefits.

The following disclosure requirements are added to Subtopic 715-20:

1. The weighted-average interest crediting rates for cash balance plans and other plans with promised interest crediting rates.
2. An explanation of the reasons for significant gains and losses related to changes in the benefit obligation for the period.

The amendments in this ASU also clarify the disclosure requirements in paragraph 715-20-50-3, which state that the following information for defined benefit pension plans should be disclosed:

1. The projected benefit obligation (PBO) and fair value of plan assets for plans with PBOs in excess of plan assets.
2. The accumulated benefit obligation (ABO) and fair value of plan assets for plans with ABOs in excess of plan assets.

Required Date of Implementation: The amendments in this ASU are effective for fiscal years ending after December 15, 2020, for public business entities and for fiscal years ending after December 15, 2021, for all other entities. Early adoption is permitted for all entities.

Effect on Consolidated Financial Statements: The Company does not expect the new guidance will have a material impact to its consolidated statements of condition or income.

Standard: *Leases (ASU 2019-01: Leases [Topic 842] Codification Improvements)*

Description: On February 25, 2016, the FASB issued Accounting Standards ASU No. 2016-02, Leases [Topic 842], to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing essential information about leasing transactions. ASU 2019-01 addresses three Issues: (1) Determining the fair value of the underlying asset by lessors that are not manufacturers or dealers; (2) Presentation on the statement of cash flows for sales-type and direct financing leases; and (3) Transition disclosures related to Topic 250, *Accounting Changes and Error Corrections*.

The amendments in this ASU address Issue 1, described above, and reinstate the exception in Topic 842 for lessors that are not manufacturers or dealers (generally financial institutions and captive finance companies). Specifically, those lessors will use their cost, reflecting any volume or trade discounts that may apply, as the fair value of the underlying asset. However, if significant time lapses between the acquisition of the underlying asset and lease commencement, those lessors will be required to apply the definition of fair value (exit price) in Topic 820.

Topic 840 does not provide guidance on how cash received from leases by lessors from sales-type and direct financing leases should be presented in the cash flow statement. The amendments in this ASU address Issue 2, described above, as to the concerns of lessors within the scope of Topic 942 about where “principal payments received under leases” should be presented. Specifically, lessors that are depository and lending institutions within the scope of Topic 942 will present all “principal payments received under leases” within investing activities in the Statement of Cash Flows.

Required Date of Implementation: The amendments in this ASU amend Topic 842. The effective date of those amendments for public business entities, such as the Company, is for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years.

Effect on Consolidated Financial Statements: The Company does not expect that the new guidance will have a material impact to its consolidated statements of condition or income.

Standard: Various Codification Improvements (*ASU 2019-04: Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments*)

Description: Since 2016, the FASB has issued the following Updates related to financial instruments:

1. Accounting Standards Update No. 2016-01, *Financial Instruments— Overall [Subtopic 825-10]: Recognition and Measurement of Financial Assets and Financial Liabilities*;
2. Accounting Standards Update No. 2016-13, *Financial Instruments— Credit Losses [Topic 326]: Measurement of Credit Losses on Financial Instruments*; and
3. Accounting Standards Update No. 2017-12, *Derivatives and Hedging [Topic 815]: Targeted Improvements to Accounting for Hedging Activities*.

The FASB has an ongoing project on its agenda for improving the Codification or correcting its unintended application. The items addressed in that project generally are not expected to have a significant effect on current accounting practice or to create a significant administrative cost for most entities. The amendments in this ASU are similar to those items and are summarized below.

For Codification Improvements specific to ASU 2016-01, the following topics were covered within ASU 2019-04:

- Scope Clarifications
- Held-to-Maturity Debt Securities Fair Value Disclosures
- Applicability of Topic 820 to the Measurement Alternative
- Remeasurement of Equity Securities at Historical Exchange Rates

The amendments to Topic 326 and other Topics in this Update include items related to the amendments in Update 2016-13 discussed at the June 2018 and November 2018 Credit Losses Transition Resource Group (“TRG”) meetings. The amendments clarify or address stakeholders’ specific issues about certain aspects of the amendments in Update 2016-13 on a number of different topics, including the following:

- Accrued Interest
- Transfers between Classifications or Categories for Loans and Debt Securities
- Recoveries
- Consideration of Prepayments in Determining the Effective Interest Rate
- Consideration of Estimated Costs to Sell When Foreclosure Is Probable
- Vintage Disclosures— Line-of-Credit Arrangements Converted to Term Loans
- Contractual Extensions and Renewals

The ASU also covered a number of issues that related to hedge accounting (ASU-2017-12) including:

- Partial-Term Fair Value Hedges of Interest Rate Risk
- Amortization of Fair Value Hedge Basis Adjustments
- Disclosure of Fair Value Hedge Basis Adjustments
- Consideration of the Hedged Contractually Specified Interest Rate under the Hypothetical Derivative Method
- Scoping for Not-for-Profit Entities
- Hedge Accounting Provisions Applicable to Certain Private Companies and Not-for-Profit Entities
- Application of a First-Payments-Received Cash Flow Hedging Technique to Overall Cash Flows on a Group of Variable Interest Payments
- Transition Guidance

Required Dates of Implementation: This ASU 2019-04 has various implementation dates dependent on a number of factors as it pertains to the above items. The Company has adopted ASU 2016-01.

Effect on Consolidated Financial Statements: The Company does not expect that the new guidance will have a material impact to its consolidated statements of condition or income.

Standard: Investments (*ASU 2020-01- Equity Securities [Topic 321], Investments—Equity Method and Joint Ventures [Topic 323], and Derivatives and Hedging [Topic 815]—Clarifying the Interactions between Topic 321, Topic 323, and Topic 815*)

Description: The amendments in this Update clarify the interaction of the accounting for equity securities under Topic 321 and investments accounted for under the equity method of accounting in Topic 323 and the accounting for certain forward contracts and purchased options accounted for under Topic 815. The amendments clarify that an entity should consider observable transactions that require it to either apply or discontinue the equity method of accounting for the purposes of applying the measurement alternative in accordance with Topic 321 immediately before applying or upon discontinuing the equity method. The amendments clarify that for the purpose of applying paragraph 815-10-15-141(a) an entity should not consider whether, upon the settlement of the forward contract or exercise of the purchased option, individually or with existing investments, the underlying securities would be accounted for under the equity method in Topic 323 or the fair value option in accordance with the financial instruments guidance in Topic 825. An entity also would evaluate the remaining characteristics in paragraph 815-10-15-141 to determine the accounting for those forward contracts and purchased options.

Required Date of Implementation: The amendments in this ASU are effective for fiscal years ending after December 15, 2020, for public business entities and for fiscal years ending after December 15, 2021, for all other entities. Early adoption is permitted for all entities.

Effect on Consolidated Financial Statements: The amendments in this Update should be applied prospectively. The Company does not expect the new guidance will have a material impact to its consolidated statements of condition or income.

Standard: Income Taxes (*ASU 2019-12- Simplifying the Accounting for Income Taxes*)

Description: The FASB Board is issuing this Update as part of its initiative to reduce complexity in accounting standards (the Simplification Initiative). The objective of the Simplification Initiative is to identify, evaluate, and improve areas of generally accepted accounting principles (GAAP) for which cost and complexity can be reduced while maintaining or improving the usefulness of the information provided to users of financial statements. The specific areas of potential simplification in this Update were submitted by stakeholders as part of the Simplification Initiative.

The amendments in this Update simplify the accounting for income taxes by removing the following exceptions:

1. Exception to the incremental approach for intraperiod tax allocation when there is a loss from continuing operations and income or a gain from other items (for example, discontinued operations or other comprehensive income)
2. Exception to the requirement to recognize a deferred tax liability for equity method investments when a foreign subsidiary becomes an equity method investment
3. Exception to the ability not to recognize a deferred tax liability for a foreign subsidiary when a foreign equity method investment becomes a subsidiary
4. Exception to the general methodology for calculating income taxes in an interim period when a year-to-date loss exceeds the anticipated loss for the year.

The amendments in this Update also simplify the accounting for income taxes by doing the following:

1. Requiring that an entity recognize a franchise tax (or similar tax) that is partially based on income as an income-based tax and account for any incremental amount incurred as a non-income-based tax.
2. Requiring that an entity evaluate when a step up in the tax basis of goodwill should be considered part of the business combination in which the book goodwill was originally recognized and when it should be considered a separate transaction.
3. Specifying that an entity is not required to allocate the consolidated amount of current and deferred tax expense to a legal entity that is not subject to tax in its separate financial statements. However, an entity may elect to do so (on an entity-by-entity basis) for a legal entity that is both not subject to tax and disregarded by the taxing authority.
4. Requiring that an entity reflect the effect of an enacted change in tax laws or rates in the annual effective tax rate computation in the interim period that includes the enactment date.
5. Making minor Codification improvements for income taxes related to employee stock ownership plans and investments in qualified affordable housing projects accounted for using the equity method.

Required Date of Implementation: The amendments in this ASU are effective for fiscal years ending after December 15, 2020, for public business entities and for fiscal years ending after December 15, 2021, for all other entities. Early adoption of the amendments is permitted, including adoption in any interim period for (1) public business entities for periods for which financial statements have not yet been issued and (2) all other entities for periods for which financial statements have not yet been made available for issuance. An entity that elects to early adopt the amendments in an interim period should reflect any adjustments as of the beginning of the annual period that includes that interim period. Additionally, an entity that elects early adoption must adopt all the amendments in the same period.

Effect on Consolidated Financial Statements: The amendments in this Update related to separate financial statements of legal entities that are not subject to tax should be applied on a retrospective basis for all periods presented. The amendments related to changes in ownership of foreign equity method investments or foreign subsidiaries should be applied on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of the beginning of the fiscal year of adoption. The amendments related to franchise taxes that are partially based on income should be applied on either a retrospective basis for all periods presented or a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of the beginning of the fiscal year of adoption. All other amendments should be applied on a prospective basis. The Company does not expect the new guidance will have a material impact to its consolidated statements of condition or income.

Standard: Financial Instruments—Credit Losses (*ASU 2019-11- Codification Improvements to Topic 326*)

Description: On June 16, 2016, the FASB issued Accounting Standards Update No. 2016-13, Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, which introduced an expected credit loss model for the impairment of financial assets measured at amortized cost basis. That model replaces the probable, incurred loss model for those assets. Through the amendments in that Update, the Board added Topic 326, Financial Instruments—Credit Losses, and made several consequential amendments to the Codification. The Board has an ongoing project on its agenda for improving the Codification or correcting its unintended application. The items addressed in that project generally are not expected to have a significant effect on current accounting practice or create a significant administrative cost for most entities. The amendments in this Update are similar to those items. However, the Board decided to issue a separate Update for improvements to the amendments in Update 2016-13 to increase stakeholder awareness of those amendments and to expedite the improvement process. The amendments include items brought to the Board's attention by stakeholders.

The amendments in this Update clarify or address stakeholders' specific issues about certain aspects of the amendments in Update 2016-13 as described below:

1. *Expected Recoveries for Purchased Financial Assets with Credit Deterioration (PCDs):* The amendments clarify that the allowance for credit losses for PCD assets should include in the allowance for credit losses expected recoveries of amounts previously written off and expected to be written off by the entity and should not exceed the aggregate of amounts of the amortized cost basis previously written off and expected to be written off by an entity. In addition, the amendments clarify that when a method other than a discounted cash flow method is used to estimate expected credit losses, expected recoveries should not include any amounts that result in an acceleration of the noncredit discount. An entity may include increases in expected cash flows after acquisition.
2. *Transition Relief for Troubled Debt Restructurings (TDRs) :* The amendments provide transition relief by permitting entities an accounting policy election to adjust the effective interest rate on existing TDRs using prepayment assumptions on the date of adoption of Topic 326 rather than the prepayment assumptions in effect immediately before the restructuring.
3. *Disclosures Related to Accrued Interest Receivables:* The amendments extend the disclosure relief for accrued interest receivable balances to additional relevant disclosures involving amortized cost basis.

4. *Financial Assets Secured by Collateral Maintenance Provisions:* The amendments clarify that an entity should assess whether it reasonably expects the borrower will be able to continually replenish collateral securing the financial asset to apply the practical expedient. The amendments clarify that an entity applying the practical expedient should estimate expected credit losses for any difference between the amount of the amortized cost basis that is greater than the fair value of the collateral securing the financial asset (that is, the unsecured portion of the amortized cost basis). An entity may determine that the expectation of nonpayment for the amount of the amortized cost basis equal to the fair value of the collateral securing the financial asset is zero.
5. *Conforming Amendment to Subtopic 805-20:* The amendment to Subtopic 805-20, Business Combinations—Identifiable Assets and Liabilities, and Any Noncontrolling Interest, clarifies the guidance by removing the cross-reference to Subtopic 310-30 in paragraph 805-20-50-1 and replacing it with a cross-reference to the guidance on PCD assets in Subtopic 326-20.

Required Date of Implementation: January 1, 2023 (early adoption permitted as of January 1, 2019). The effective dates and transition requirements for the amendments are the same as the effective dates and transition requirements in Update 2016-13.

Effect on Consolidated Financial Statements: The Company is assessing the new guidance to determine what modifications to existing credit estimation processes may be required. The new guidance is complex and management is still evaluating the preliminary output from models that have been developed during this evaluative phase. In addition, future levels of allowances will also reflect new requirements to include estimated credit losses on investment securities classified as held-to-maturity, if any. The Company has formed an Implementation Committee, whose membership includes representatives of senior management, to develop plans that will encompass: (1) internal methodology changes (2) data collection and management activities, (3) internal communication requirements, and (4) estimation of the projected impact of this guidance. It has been generally assumed that the conversion from the incurred loss model, required under current GAAP, to the CECL methodology will, more likely than not, result in increases to the allowances for credit losses at many financial institutions. However, the amount of any change in the allowance for credit losses resulting from the new guidance will ultimately be impacted by the provisions of this guidance as well as by the loan and debt security portfolios composition and asset quality at the adoption date, and economic conditions and forecasts at the time of adoption. The amendments in this Update should be applied on a modified retrospective basis by means of a cumulative-effect adjustment to the opening retained earnings balance in the statement of financial position as of the date that an entity adopted the amendments in Update 2016-13.

NOTE 3: EARNINGS PER SHARE

The Company entered into a securities purchase agreement with Castle Creek Capital Partners VII, L.P. on May 8, 2019, pursuant to which the Company sold: (i) 37,700 shares of the Company's common stock, par value \$0.01 per share, at a purchase price of \$14.25 per share; (ii) 1,155,283 shares of a new series of preferred stock, Series B convertible perpetual preferred stock, par value \$0.01 per share, at a purchase price of \$14.25 per share; and (iii) a warrant, with an approximate fair value of \$373,000, to purchase 125,000 shares of common stock at an exercise price equal to \$14.25 per share, in a Private Placement transaction for gross proceeds of approximately \$17.0 million. As a result of the securities purchase agreement, the Company has common stock, preferred stock and a warrant that are all eligible to participate in dividends equal to the common stock dividends on a per share basis. Securities that participate in dividends, such as the Company's preferred stock and warrant, are considered "participating securities." The Company calculates net income available to common shareholders using the two-class method required for capital structures that include participating securities.

In applying the two-class method for the year ended December 31, 2019, basic net income per share was calculated by dividing net income (less any dividends on participating securities) by the weighted average number of shares of common stock and participating securities outstanding for the period. Diluted earnings per share may include the additional effect of other securities, if dilutive, in which case the dilutive effect of such securities is calculated by applying either the two-class method or the Treasury Stock method to the assumed exercise or vesting of potentially dilutive common shares. The method yielding the more dilutive result is ultimately reported for the applicable period. Potentially dilutive common stock equivalents primarily consist of employee stock options and restricted stock units. Unallocated common shares held by the ESOP are not included in the weighted average number of common shares outstanding for purposes of calculating earnings per common share until they are committed to be released to plan participants.

Basic earnings per share for the year ended December 31, 2018 was calculated by dividing net income available to common shareholders by the weighted average number of common shares outstanding during the period. Net income available to common shareholders is net income to Pathfinder Bancorp, Inc. less the total of preferred dividends declared, if any. Diluted earnings per share include the potential dilutive effect that could occur upon the assumed exercise of issued stock options using the Treasury Stock method. Unallocated common shares held by the ESOP are not included in the weighted average number of common shares outstanding for purposes of calculating earnings per common share until they are committed to be released to plan participants.

Anti-dilutive shares are common stock equivalents with average exercise prices in excess of the weighted average market price for the period presented. Anti-dilutive stock options, not included in the computation below, were -0- for the years ended 2019 and 2018.

The following table sets forth the calculation of basic and diluted earnings per share.

	Years ended December 31,	
	2019	2018
<i>(In thousands, except per share data)</i>		
Net income attributable to Pathfinder Bancorp, Inc.	\$ 4,276	\$ 4,031
Convertible preferred stock dividends	208	-
Warrant dividends	23	-
Undistributed earnings allocated to participating securities	467	-
Net income available to common shareholders	\$ 3,578	\$ 4,031
Basic weighted average common shares outstanding	4,464	4,171
Effect of assumed exercise of stock options and unvested restricted stock units	-	95
Diluted weighted average common shares outstanding	4,464	4,266
Basic earnings per common share	\$ 0.80	\$ 0.97
Diluted earnings per common share	\$ 0.80	\$ 0.94

NOTE 4: INVESTMENT SECURITIES

The amortized cost and estimated fair value of investment securities are summarized as follows:

<i>(In thousands)</i>	December 31, 2019			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
<i>Available-for-Sale Portfolio</i>				
<i>Debt investment securities:</i>				
US Treasury, agencies and GSEs	\$ 16,850	\$ -	\$ (30)	\$ 16,820
State and political subdivisions	1,735	1	-	1,736
Corporate	12,347	230	(23)	12,554
Asset backed securities	13,190	61	(19)	13,232
Residential mortgage-backed - US agency	19,012	56	(88)	18,980
Collateralized mortgage obligations - US agency	31,320	35	(570)	30,785
Collateralized mortgage obligations - Private label	16,767	97	(43)	16,821
Total	111,221	480	(773)	110,928
<i>Equity investment securities:</i>				
Common stock - financial services industry	206	-	-	206
Total	206	-	-	206
Total available-for-sale	\$ 111,427	\$ 480	\$ (773)	\$ 111,134
<i>Held-to-Maturity Portfolio</i>				
<i>Debt investment securities:</i>				
US Treasury, agencies and GSEs	\$ 1,998	\$ 2	\$ -	\$ 2,000
State and political subdivisions	8,534	124	(4)	8,654
Corporate	25,779	584	(29)	26,334
Asset backed securities	23,099	101	(115)	23,085
Residential mortgage-backed - US agency	13,715	247	(3)	13,959
Collateralized mortgage obligations - US agency	19,607	300	(29)	19,878
Collateralized mortgage obligations - Private label	30,256	35	(53)	30,238
Total held-to-maturity	\$ 122,988	\$ 1,393	\$ (233)	\$ 124,148

	December 31, 2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
<i>(In thousands)</i>				
Available-for-Sale Portfolio				
Debt investment securities:				
US Treasury, agencies and GSEs	\$ 17,171	\$ 18	\$ (158)	\$ 17,031
State and political subdivisions	23,661	6	(602)	23,065
Corporate	17,389	220	(409)	17,200
Asset backed securities	18,243	13	(137)	18,119
Residential mortgage-backed - US agency	32,409	34	(777)	31,666
Collateralized mortgage obligations - US agency	48,101	31	(1,691)	46,441
Collateralized mortgage obligations - Private label	24,317	17	(398)	23,936
Total	181,291	339	(4,172)	177,458
Equity investment securities:				
Common stock - financial services industry	206	-	-	206
Total	206	-	-	206
Total available-for-sale	\$ 181,497	\$ 339	\$ (4,172)	\$ 177,664
Held-to-Maturity Portfolio				
Debt investment securities:				
US Treasury, agencies and GSEs	\$ 3,987	\$ -	\$ (35)	\$ 3,952
State and political subdivisions	5,089	22	(84)	5,027
Corporate	9,924	4	(182)	9,746
Asset backed securities	1,509	-	(13)	1,496
Residential mortgage-backed - US agency	11,601	124	(47)	11,678
Collateralized mortgage obligations - US agency	13,972	93	(13)	14,052
Collateralized mortgage obligations - Private label	7,826	17	(25)	7,818
Total held-to-maturity	\$ 53,908	\$ 260	\$ (399)	\$ 53,769

The majority of the Company's investments in mortgage-backed securities include pass-through securities and collateralized mortgage obligations issued and guaranteed by Fannie Mae, Freddie Mac, and Ginnie Mae. At December 31, 2019, the Company also held a total of 33 private-label mortgage-backed securities or collateralized mortgage obligations with an aggregate book balance of \$47.0 million and 23 private-label asset backed securities collateralized by consumer loans with an aggregate book balance of \$36.3 million. At December 31, 2018, the Company held a total of 21 private-label mortgage-backed securities or collateralized mortgage obligations with an aggregate book balance of \$32.1 million and 14 private-label asset backed securities collateralized by consumer loans with an aggregate book balance of \$19.8 million. These investments are relatively short-duration securities with significant credit enhancements. The Company's investments in state and political obligation securities are generally municipal obligations that are categorized as general obligations of the issuer that are supported by the overall taxing authority of the issuer, and in some cases are insured. The obligations issued by school districts are generally supported by state administered insurance funds or credit enhancement programs.

The amortized cost and estimated fair value of debt investments at December 31, 2019 by contractual maturity are shown below. Expected maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without penalties.

	Available-for-Sale		Held-to-Maturity	
	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value
<i>(In thousands)</i>				
Due in one year or less	\$ 10,252	\$ 10,250	\$ 1,308	\$ 1,312
Due after one year through five years	11,452	11,620	24,674	24,947
Due after five years through ten years	15,809	15,854	17,540	17,945
Due after ten years	6,609	6,618	15,888	15,869
Sub-total	44,122	44,342	59,410	60,073
Residential mortgage-backed - US agency	19,012	18,980	13,715	13,959
Collateralized mortgage obligations - US agency	31,320	30,785	19,607	19,878
Collateralized mortgage obligations - Private label	16,767	16,821	30,256	30,238
Totals	\$ 111,221	\$ 110,928	\$ 122,988	\$ 124,148

The Company's investment securities' gross unrealized losses and fair value, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position, is as follows:

	December 31, 2019								
	Less than Twelve Months			Twelve Months or More			Total		
	Number of Individual Securities	Unrealized Losses	Fair Value	Number of Individual Securities	Unrealized Losses	Fair Value	Number of Individual Securities	Unrealized Losses	Fair Value
<i>(Dollars in thousands)</i>									
Available-for-Sale Portfolio									
US Treasury, agencies and GSE's	4	\$ (30)	\$16,820	-	\$ -	\$ -	4	\$ (30)	\$16,820
Corporate	1	(23)	786	-	-	-	1	(23)	786
Asset backed securities	3	(7)	5,211	1	(12)	594	4	(19)	5,805
Residential mortgage-backed - US agency	10	(77)	10,709	4	(11)	2,543	14	(88)	13,252
Collateralized mortgage obligations - US agency	10	(67)	15,791	10	(503)	10,034	20	(570)	25,825
Collateralized mortgage obligations - Private label	2	(7)	3,818	5	(36)	3,959	7	(43)	7,777
Totals	30	\$ (211)	\$53,135	20	\$ (562)	\$17,130	50	\$ (773)	\$70,265
Held-to-Maturity Portfolio									
State and political subdivisions	1	\$ (4)	3,027	-	\$ -	-	1	\$ (4)	3,027
Corporate	2	(29)	2,974	-	-	-	2	(29)	2,974
Asset backed securities	6	(115)	11,091	-	-	-	6	(115)	11,091
Residential mortgage-backed - US agency	-	-	-	1	(3)	198	1	(3)	198
Collateralized mortgage obligations - US agency	2	(29)	4,907	-	-	-	2	(29)	4,907
Collateralized mortgage obligations - Private label	6	(49)	9,396	2	(4)	1,132	8	(53)	10,528
Totals	17	\$ (226)	\$31,395	3	\$ (7)	\$ 1,330	20	\$ (233)	\$32,725

December 31, 2018

	December 31, 2018								
	Less than Twelve Months			Twelve Months or More			Total		
	Number of Individual Securities	Unrealized Losses	Fair Value	Number of Individual Securities	Unrealized Losses	Fair Value	Number of Individual Securities	Unrealized Losses	Fair Value
<i>(Dollars in thousands)</i>									
Available-for-Sale Portfolio									
US Treasury, agencies and GSE's	1	\$ (22)	\$ 977	2	\$ (136)	\$ 12,017	3	\$ (158)	\$ 12,994
State and political subdivisions	5	(76)	5,213	26	(526)	14,206	31	(602)	19,419
Corporate	10	(137)	8,266	4	(272)	3,374	14	(409)	11,640
Asset backed securities	7	(91)	10,470	2	(46)	3,059	9	(137)	13,529
Residential mortgage-backed - US agency	6	(83)	3,519	21	(694)	24,154	27	(777)	27,673
Collateralized mortgage obligations - US agency	3	(98)	2,792	28	(1,593)	35,765	31	(1,691)	38,557
Collateralized mortgage obligations - Private label	7	(275)	14,011	5	(123)	5,907	12	(398)	19,918
Totals	39	\$ (782)	\$45,248	88	\$ (3,390)	\$98,482	127	\$ (4,172)	\$143,730
Held-to-Maturity Portfolio									
US Treasury, agencies and GSE's	1	\$ (8)	\$ 982	3	\$ (27)	\$ 2,970	4	\$ (35)	\$ 3,952
State and political subdivisions	-	-	-	6	(84)	2,310	6	(84)	2,310
Corporate	4	(41)	3,214	2	(141)	2,507	6	(182)	5,721
Asset backed securities	1	(13)	1,496	-	-	-	1	(13)	1,496
Residential mortgage-backed - US agency	3	(8)	1,447	2	(39)	1,769	5	(47)	3,216
Collateralized mortgage obligations - US agency	4	(13)	3,972	-	-	-	4	(13)	3,972
Collateralized mortgage obligations - Private label	-	-	-	2	(25)	1,874	2	(25)	1,874
Totals	13	\$ (83)	\$11,111	15	\$ (316)	\$11,430	28	\$ (399)	\$ 22,541

The Company conducts a formal review of investment securities on a quarterly basis for the presence of OTTI. The Company assesses whether OTTI is present when the fair value of a debt security is less than its amortized cost basis at the statement of condition date. Under these circumstances, OTTI is considered to have occurred (1) if we intend to sell the security; (2) if it is "more likely than not" we will be required to sell the security before recovery of its amortized cost basis; or (3) the present value of expected cash flows is not anticipated to be sufficient to recover the entire amortized cost basis. The guidance requires that credit-related OTTI is recognized in earnings while non-credit-related OTTI on securities not expected to be sold is recognized in other comprehensive income ("OCI"). Non-credit-related OTTI is based on other factors, including illiquidity and changes in the general interest rate environment. Presentation of OTTI is made in the consolidated statement of income on a gross basis, including both the portion recognized in earnings as well as the portion recorded in OCI. The gross OTTI would then be offset by the amount of non-credit-related OTTI, showing the net as the impact on earnings.

Management does not believe any individual unrealized loss in other securities within the portfolio as of December 31, 2019 represents OTTI. There were a total of 20 securities classified as available-for-sale and 3 securities classified as held-to-maturity that were in an unrealized loss position for 12 months or longer at December 31, 2019. Each security which has been in an unrealized loss position for 12 months or more has been analyzed and is not considered to be impaired. These securities have unrealized losses primarily due to changes in general interest rates that occurred since the securities were acquired or due to changes in certain assumptions related to the securities' such as the timing of projected prepayment activity. Of the 23 securities in an unrealized loss position for 12 months or more at December 31, 2019, 15 securities, representing 69.8% of the amortized cost of the total securities in an unrealized loss position for 12 months or more, are issued by United States agencies or government sponsored enterprises and consist of mortgage-backed securities, collateralized mortgage obligations and direct agency financings. These positions in US government agency and government-sponsored enterprises are deemed to have no credit impairment, thus, the disclosed unrealized losses relate primarily to changes in interest rates subsequent to the acquisition of the individual securities. In addition to these securities, the Company held the following issuances that were in an unrealized loss position for 12 or more months at December 31, 2019:

One privately-issued asset-backed security, categorized as available-for-sale, with an amortized historical cost of \$606,000 and a fair value of \$594,000 (unrealized loss of \$12,000, or 2.06%). This security maintains a credit rating established by one or more NRSRO above the minimum level required to be considered as investment grade and therefore, no credit-related OTTI is deemed to be present.

Five privately-issued collateralized mortgage obligation securities, categorized as available-for-sale, with an aggregate amortized historical cost of \$3.9 million and an aggregate fair value of \$3.9 million (aggregate unrealized loss of \$36,000, or 0.92%). These securities were not rated at the time of their issuances by any NRSRO but each security remains significantly collateralized through subordination. Therefore, no credit-related OTTI is deemed to be present.

Two privately-issued collateralized mortgage obligation securities, categorized as held-to-maturity, with aggregate amortized historical cost of \$1.1 million and an aggregate fair value of \$1.1 million (aggregate unrealized loss of \$4,000, or 0.35%). These

securities were not rated at the time of their issuance by any NRSRO but each security remains significantly collateralized through subordination. Therefore, no credit-related OTTI is deemed to be present.

The Company does not intend to sell any of the securities in an unrealized loss position for 12 or months nor is it more likely than not that the Company will be required to sell these securities prior to the recovery of the amortized cost.

Proceeds of \$103.0 million and \$35.6 million, respectively on sales and redemptions of securities for the years ended December 31 resulted in gross realized gains (losses) detailed below:

<i>(In thousands)</i>	2019	2018
Realized gains on investments	\$ 707	\$ 242
Realized losses on investments	(378)	(424)
	\$ 329	\$ (182)

As of December 31, 2019 and December 31, 2018, securities with a fair value of \$92.4 million and \$69.8 million, respectively, were pledged to collateralize certain municipal deposit relationships. As of the same dates, securities with a fair value of \$21.3 million and \$19.5 million were pledged against certain borrowing arrangements.

Management has reviewed its loan and mortgage-backed securities portfolios and determined that, to the best of its knowledge, little or no exposure exists to sub-prime or other high-risk residential mortgages. The Company is not in the practice of investing in, or originating, these types of investments or loans.

NOTE 5: LOANS

Major classifications of loans are as follows:

<i>(In thousands)</i>	December 31, 2019	December 31, 2018
Residential mortgage loans:		
1-4 family first-lien residential mortgages	\$ 209,559	\$ 232,523
Construction	3,963	7,121
Loans held-for-sale ⁽¹⁾	35,790	-
Total residential mortgage loans	249,312	239,644
Commercial loans:		
Real estate	254,257	212,314
Lines of credit	58,617	44,235
Other commercial and industrial	82,092	63,359
Tax exempt loans	8,067	9,320
Total commercial loans	403,033	329,228
Consumer loans:		
Home equity and junior liens	46,389	26,109
Other consumer	82,607	25,424
Total consumer loans	128,996	51,533
Total loans	781,341	620,405
Net deferred loan fees	110	(135)
Less allowance for loan losses	(8,669)	(7,306)
Loans receivable, net	\$ 772,782	\$ 612,964

⁽¹⁾ Based on ASC 948, Mortgage Banking, loans shall be classified as held-for-sale once a decision has been made to sell the loans and shall be transferred to the held-for-sale category at lower of cost or fair value. The loans under contract to be sold had a principal balance of \$35.8 million and net deferred fees of \$146,000 at December 31, 2019. These loans were transferred at their amortized cost of \$35.9 million as of December 31, 2019, as the fair value of these loans was greater than the amortized cost.

The Bank may occasionally purchase or fund loan participation interests in commercial real estate that are outside of its primary market areas, however, the Bank almost exclusively originates residential mortgage, commercial business, and consumer loans to customers throughout Oswego, NY and Onondaga, NY and the surrounding counties. The Company has what management considers to be a well-diversified loan portfolio. However, a substantial portion of its borrowers' abilities to honor their contracts is dependent upon the counties' general employment and economic conditions.

In addition, the Bank will, from time to time, purchase aggregated pools of homogenous consumer or commercial business loans from unaffiliated third parties. These purchases are made primarily as an alternative to investment in debt securities. The following summarizes the Bank's positions in these acquisitions at December 31, 2019 and December 31, 2018:

The Bank acquired \$15.6 million, \$10.2 million and \$24.6 million of loans originated by an unrelated financial institution, located outside of the Bank's market area, in January 2017, April 2017, and March 2019, respectively. The acquired loan pools represented a 90% participating interest in a total of 2,283 loans secured by liens on automobiles with original maturities ranging primarily from two to six years. These loans will be serviced through their respective maturities by the originating financial institution. At December 31, 2019 and December 31, 2018, there were 1,657 loans outstanding with a remaining carrying value of \$27.2 million, and 909 loans outstanding with a remaining outstanding carrying value of \$13.3 million, respectively. The unamortized premium included in the carrying value At December 31, 2019 and December 31, 2018 was \$930,000 and \$534,000, respectively. Since the acquisition of these loan pools, a total of 29 loans had cumulative net charge-offs totaling \$196,000 with \$77,000 in net charge-offs occurring in the twelve months ended December 31, 2019.

The Bank acquired a \$5.0 million pool of consumer loans and \$5.0 million pool of commercial and industrial loans originated by an unrelated financial institution, located outside of the Bank's market area, in June 2019. In December 2019, the Bank acquired an additional \$1.8 million in commercial and industrial loans and \$392,000 of consumer loans from the same institution. The acquired loan pools represented a 100% interest in a total of 89 unsecured consumer loans and a total of 43 commercial and industrial loans. These loans have maturities ranging primarily from four to ten years. At December 31, 2019 there were 87 unsecured consumer loans outstanding with a remaining outstanding carrying value of \$5.0 million and 43 commercial and industrial loans outstanding with a remaining outstanding carrying value of \$6.6 million. These loans have no unamortized premium or discount included in the carrying value. No charge-offs have occurred since the acquisition of these loan pools.

The Bank acquired a \$21.9 million pool of home equity lines of credit originated by an unrelated financial technology company, located outside of the Bank's market area, in August 2019. The acquired loan pool represented a 100% interest in a total of 395 secured home equity lines of credit. These lines of credit have maturities ranging primarily from four to thirty years. These lines of credit will be serviced through their respective maturities by the originating financial technology company. At December 31, 2019, there were 376 secured home equity lines of credit outstanding with a remaining outstanding carrying value of \$20.1 million. The unamortized premium included in the carrying value at December 31, 2019 was \$390,000. No charge-offs have occurred since the acquisition of these loan pools.

The Bank acquired a \$26.6 million pool of unsecured consumer loans originated by an unrelated financial technology company, located outside of the Bank's market area, in November 2019. The acquired loan pool represents a 59.2% interest in a total of 2,787 unsecured consumer loans. These loans have maturities ranging primarily from three to five years. These loans will be serviced through their respective maturities by the originating unrelated financial technology company. At December 31, 2019, there were 2,768 unsecured consumer loans outstanding with a remaining outstanding carrying value of \$25.8 million. The unamortized premium included in the carrying value at December 31, 2019 was \$114,000. No charge-offs have occurred since the acquisition of these loan pools.

The Bank acquired a \$10.3 million pool of unsecured consumer loans originated by an unrelated financial technology company, located outside of the Bank's market area, in December 2019. The acquired loan pool represents a 100% interest in a total of 4,259 unsecured consumer loans. These loans have maturities ranging primarily from less than one year to three to seven years. These loans will be serviced through their respective maturities by the originating unrelated financial technology company. At December 31, 2019, there were 4,259 unsecured consumer loans outstanding with a remaining outstanding carrying value of \$10.3 million. The unamortized premium included in the carrying value at December 31, 2019 was \$245,000. No charge-offs have occurred since the acquisition of these loan pools.

The Bank acquired a \$2.1 million pool of secured first lien residential mortgages originated by an unrelated non-profit housing and community development organization, located within the Bank's market area, in December 2019. The acquired loan pool represents a 100% interest in a total of 25 secured first lien residential mortgages. These loans have maturities ranging primarily from 22 to 24 years. These loans will be serviced through their respective maturities by the unrelated non-profit housing and community development organization. At December 31, 2019, there were 25 unsecured consumer loans outstanding with a remaining outstanding

carrying value of \$2.1 million. The unamortized premium included in the carrying value at December 31, 2019 was \$135,000. No charge-offs have occurred since the acquisition of these loan pools.

As of December 31, 2019 and December 31, 2018, residential mortgage loans with a carrying value of \$136.9 million and \$154.9 million, respectively, have been pledged by the Company to the Federal Home Loan Bank of New York (“FHLBNY”) under a blanket collateral agreement to secure the Company’s line of credit and term borrowings.

Loan Origination / Risk Management

The Company has lending policies and procedures in place that are designed to maximize loan income within an acceptable level of risk. Management and the board of directors reviews and approves these policies and procedures on a regular basis. A reporting system supplements the review process by frequently providing management with reports related to loan production, loan quality, loan delinquencies, nonperforming and potential problem loans. Diversification in the loan portfolio is also a means of managing risk associated with fluctuations in economic conditions. Homogenous pools of purchased loans are subject to substantial prepurchase analyses led by a team of the Bank’s senior executives and credit analysts. In each case, the Bank’s analytical processes consider the types of loans being evaluated, the underwriting criteria employed by the originating entity, the historical performance of such loans, especially in the most recent deeply recessionary environments, the collateral enhancements and other credit loss mitigation factors offered by the seller and the capabilities and financial stability of the servicing entities involved. From a credit risk perspective, these loan pools also benefit from broad diversification, including wide geographic dispersion, the readily-verifiable historical performance of similar loans issued by the originators, as well as the overall experience and skill of the underwriters and servicing entities involved as counterparties to the Bank in these transactions. The performance of all purchased loan pools are monitored regularly from detailed reports and remittance reconciliations provided at least monthly by the servicing entities.

Risk Characteristics of Portfolio Segments

Each portfolio segment generally carries its own unique risk characteristics.

The residential mortgage loan segment is impacted by general economic conditions, unemployment rates in the Bank’s service area, real estate values and the forward expectation of improvement or deterioration in economic conditions. First and second lien residential mortgages, acquired via purchase are impacted by general economic conditions, unemployment rates in the general areas in which the loan collateral is located, real estate values in those areas and the forward expectation of improvement or deterioration in economic conditions.

The commercial loan segment is impacted by general economic conditions but, more specifically, the industry segment in which each borrower participates. Unique competitive changes within a borrower’s specific industry, or geographic location could cause significant changes in the borrower’s revenue stream, and therefore, impact its ability to repay its obligations. Commercial real estate is also subject to general economic conditions but changes within this segment typically lag changes seen within the consumer and commercial segment. Included within this portfolio are both owner occupied real estate, in which the borrower occupies the majority of the real estate property and upon which the majority of the sources of repayment of the obligation is dependent upon, and non-owner occupied real estate, in which several tenants comprise the repayment source for this portfolio segment. The composition and competitive position of the tenant structure may cause adverse changes in the repayment of debt obligations for the non-owner occupied class within this segment.

The consumer loan segment is impacted by general economic conditions, unemployment rates in the geographic areas in which borrowers and loan collateral are located, and the forward expectation of improvement or deterioration in economic conditions.

Real estate loans, including residential mortgages, commercial real estate loans and home equity, comprise 70% of the portfolio in 2019, similar to the composition in 2018, where such loans represented 77% of total loans. Loans secured by real estate generally provide strong collateral protection and thus significantly reduce the inherent credit risk in the portfolio.

Management has reviewed its loan portfolio and determined that, to the best of its knowledge, little or no exposure exists to sub-prime or other high-risk residential mortgages. The Company is not in the practice of originating these types of loans.

Description of Credit Quality Indicators

The Company utilizes an eight tier risk rating system to evaluate the quality of its loan portfolio. Loans that are risk rated “1” through “4” are considered “Pass” loans. In accordance with regulatory guidelines, loans rated “5” through “8” are termed “criticized” loans and loans rated “6” through “8” are termed “classified” loans. A description of the Company’s credit quality indicators follows.

For Commercial Loans:

1. Prime: A loan that is fully secured by properly margined Pathfinder Bank deposit account(s) or an obligation of the US Government. It may also be unsecured if it is supported by a very strong financial condition and, in the case of a commercial loan, excellent management. There exists an unquestioned ability to repay the loan in accordance with its terms.
2. Strong: Desirable relationship of somewhat less stature than Prime grade. Possesses a sound documented repayment source, and back up, which will allow repayment within the terms of the loan. Individual loans backed by solid assets, character and integrity. Ability of individual or company management is good and well established. Probability of serious financial deterioration is unlikely.
3. Satisfactory: Stable financial condition with cash flow sufficient for debt service coverage. Satisfactory loans of average strength having some deficiency or vulnerability to changing economic or industry conditions but performing as agreed with documented evidence of repayment capacity. May be unsecured loans to borrowers with satisfactory credit and financial strength. Satisfactory provisions for management succession and a secondary source of repayment exists.
4. Satisfactory Watch: A four is not a criticized or classified credit. These credits do not display the characteristics of a criticized asset as defined by the regulatory definitions. A credit is given a Satisfactory Watch designation if there are matters or trends observed deserving attention somewhat beyond normal monitoring. Borrowing obligations may be handled according to agreement but could be adversely impacted by developing factors such as industry conditions, operating problems, pending litigation of a significant nature or declining collateral quality and adequacy.
5. Special Mention: A warning risk grade that portrays one or more weaknesses that may be tolerated in the short term. Assets in this category are currently protected but are potentially weak. This loan would not normally be booked as a new credit, but may have redeeming characteristics persuading the Bank to continue working with the borrower. Loans accorded this classification have potential weaknesses which may, if not checked or corrected, weaken the company's assets, inadequately protect the Bank's position or effect the orderly, scheduled reduction of the debt at some future time.
6. Substandard: The relationship is inadequately protected by the current net worth and cash flow capacity of the borrower, guarantor/endorser, or of the collateral pledged. Assets have a well-defined weakness or weaknesses that jeopardize the orderly liquidation of the debt. The relationship shows deteriorating trends or other deficient areas. The loan may be nonperforming and expected to remain so for the foreseeable future. Relationship balances may be adequately secured by asset value; however a deteriorated financial condition may necessitate collateral liquidation to effect repayment. This would also include any relationship with an unacceptable financial condition requiring excessive attention of the officer due to the nature of the credit risk or lack of borrower cooperation.
7. Doubtful: The relationship has all the weaknesses inherent in a credit graded 5 with the added characteristic that the weaknesses make collection on the basis of currently existing facts, conditions and value, highly questionable or improbable. The possibility of some loss is extremely high, however its classification as an anticipated loss is deferred until a more exact determination of the extent of loss is determined. Loans in this category must be on nonaccrual.
8. Loss: Loans are considered uncollectible and of such little value that continuance as bankable assets is not warranted. It is not practicable or desirable to defer writing off this basically worthless asset even though partial recovery may be possible in the future.

For Residential Mortgage and Consumer Loans:

Residential mortgage and consumer loans are assigned a "Pass" rating unless the loan has demonstrated signs of weakness as indicated by the ratings below.

5. Special Mention: All loans sixty days past due are classified Special Mention. The loan is not upgraded until it has been current for six consecutive months.
6. Substandard: All loans 90 days past due are classified Substandard. The loan is not upgraded until it has been current for six consecutive months.
7. Doubtful: The relationship has all the weaknesses inherent in a credit graded 5 with the added characteristic that the weaknesses make collection on the basis of currently existing facts, conditions and value, highly questionable or improbable. The possibility of some loss is extremely high.

The risk ratings for classified loans are evaluated at least quarterly for commercial loans or when credit deficiencies arise, such as delinquent loan payments, for commercial, residential mortgage or consumer loans. See further discussion of risk ratings in Note 1.

The following table presents the segments and classes of the loan portfolio summarized by the aggregate pass rating and the criticized and classified ratings of special mention, substandard and doubtful within the Company's internal risk rating system:

<i>(In thousands)</i>	As of December 31, 2019				
	Pass	Special Mention	Substandard	Doubtful	Total
Residential mortgage loans:					
1-4 family first-lien residential mortgages	\$ 205,554	\$ 1,093	\$ 1,731	\$ 1,181	\$ 209,559
Construction	3,963	-	-	-	3,963
Loans held-for-sale	35,790	-	-	-	35,790
Total residential mortgage loans	245,307	1,093	1,731	1,181	249,312
Commercial loans:					
Real estate	238,288	12,473	3,194	302	254,257
Lines of credit	50,396	7,945	276	-	58,617
Other commercial and industrial	72,653	8,473	923	43	82,092
Tax exempt loans	8,067	-	-	-	8,067
Total commercial loans	369,404	28,891	4,393	345	403,033
Consumer loans:					
Home equity and junior liens	45,414	191	477	307	46,389
Other consumer	82,252	167	188	-	82,607
Total consumer loans	127,666	358	665	307	128,996
Total loans	\$ 742,377	\$ 30,342	\$ 6,789	\$ 1,833	\$ 781,341

<i>(In thousands)</i>	As of December 31, 2018				
	Pass	Special Mention	Substandard	Doubtful	Total
Residential mortgage loans:					
1-4 family first-lien residential mortgages	\$ 228,563	\$ 999	\$ 1,190	\$ 1,771	\$ 232,523
Construction	7,121	-	-	-	7,121
Total residential mortgage loans	235,684	999	1,190	1,771	239,644
Commercial loans:					
Real estate	201,997	8,299	1,947	71	212,314
Lines of credit	42,489	1,491	233	22	44,235
Other commercial and industrial	59,344	3,268	612	135	63,359
Tax exempt loans	9,320	-	-	-	9,320
Total commercial loans	313,150	13,058	2,792	228	329,228
Consumer loans:					
Home equity and junior liens	25,706	144	173	86	26,109
Other consumer	25,294	95	35	-	25,424
Total consumer loans	51,000	239	208	86	51,533
Total loans	\$ 599,834	\$ 14,296	\$ 4,190	\$ 2,085	\$ 620,405

Nonaccrual and Past Due Loans

Loans are placed on nonaccrual when the contractual payment of principal and interest has become 90 days past due or management has serious doubts about further collectability of principal or interest, even though the loan may be performing.

Loans are considered past due if the required principal and interest payments have not been received within thirty days of the payment due date.

An age analysis of past due loans, not including net deferred loan costs, segregated by portfolio segment and class of loans, for the years ended December 31, are detailed in the following tables:

	As of December 31, 2019					
	30-59 Days Past Due and Accruing	60-89 Days Past Due and Accruing	90 Days and Over	Total Past Due	Total Loans Current	Total Loans Receivable
<i>(In thousands)</i>						
Residential mortgage loans:						
1-4 family first-lien residential mortgages	\$ 947	\$ 744	\$ 1,613	\$ 3,304	\$ 206,255	\$ 209,559
Construction	-	-	-	-	3,963	3,963
Loans held-for-sale	-	-	-	-	35,790	35,790
Total residential mortgage loans	947	744	1,613	3,304	246,008	249,312
Commercial loans:						
Real estate	953	100	2,271	3,324	250,933	254,257
Lines of credit	4,464	25	68	4,557	54,060	58,617
Other commercial and industrial	2,747	315	591	3,653	78,439	82,092
Tax exempt loans	-	-	-	-	8,067	8,067
Total commercial loans	8,164	440	2,930	11,534	391,499	403,033
Consumer loans:						
Home equity and junior liens	315	130	480	925	45,464	46,389
Other consumer	335	50	151	536	82,071	82,607
Total consumer loans	650	180	631	1,461	127,535	128,996
Total loans	\$ 9,761	\$ 1,364	\$ 5,174	\$ 16,299	\$ 765,042	\$ 781,341

	As of December 31, 2018					
	30-59 Days Past Due and Accruing	60-89 Days Past Due and Accruing	90 Days and Over	Total Past Due	Total Loans Current	Total Loans Receivable
<i>(In thousands)</i>						
Residential mortgage loans:						
1-4 family first-lien residential mortgages	\$ 1,507	\$ 505	\$ 1,176	\$ 3,188	\$ 229,335	\$ 232,523
Construction	-	-	-	-	7,121	7,121
Total residential mortgage loans	1,507	505	1,176	3,188	236,456	239,644
Commercial loans:						
Real estate	4,261	364	323	4,948	207,366	212,314
Lines of credit	1,033	111	22	1,166	43,069	44,235
Other commercial and industrial	814	44	387	1,245	62,114	63,359
Tax exempt loans	-	-	-	-	9,320	9,320
Total commercial loans	6,108	519	732	7,359	321,869	329,228
Consumer loans:						
Home equity and junior liens	247	6	35	288	25,821	26,109
Other consumer	226	65	107	398	25,026	25,424
Total consumer loans	473	71	142	686	50,847	51,533
Total loans	\$ 8,088	\$ 1,095	\$ 2,050	\$ 11,233	\$ 609,172	\$ 620,405

Year-end nonaccrual loans, segregated by class of loan, were as follows:

<i>(In thousands)</i>	December 31, 2019	December 31, 2018
Residential mortgage loans:		
1-4 family first-lien residential mortgages	\$ 1,613	\$ 1,176
Total residential mortgage loans	1,613	1,176
Commercial loans:		
Real estate	2,343	415
Lines of credit	68	28
Other commercial and industrial	591	387
Total commercial loans	3,002	830
Consumer loans:		
Home equity and junior liens	480	35
Other consumer	151	107
Total consumer loans	631	142
Total nonaccrual loans	\$ 5,246	\$ 2,148

There were no loans past due ninety days or more and still accruing interest at December 31, 2019 or 2018.

The Company is required to disclose certain activities related to Troubled Debt Restructurings (“TDR”) in accordance with accounting guidance. Certain loans have been modified in a TDR where economic concessions have been granted to a borrower who is experiencing, or expected to experience, financial difficulties. These economic concessions could include a reduction in the loan interest rate, extension of payment terms, reduction of principal amortization, or other actions that it would not otherwise consider for a new loan with similar risk characteristics.

The Company is required to disclose new TDRs for each reporting period for which an income statement is being presented. Pre-modification outstanding recorded investment is the principal loan balance less the provision for loan losses before the loan was modified as a TDR. Post-modification outstanding recorded investment is the principal balance less the provision for loan losses after the loan was modified as a TDR. Additional provision for loan losses is the change in the allowance for loan losses between the pre-modification outstanding recorded investment and post-modification outstanding recorded investment.

The table below details loans that had been modified as TDRs for the year ended December 31, 2019.

<i>(In thousands)</i>	Number of loans	For the year ended December 31, 2019		
		Pre-modification outstanding recorded investment	Post-modification outstanding recorded investment	Additional provision for loan losses
Residential real estate loans	1	\$ 205	\$ 250	\$ -

The TDR evaluated for impairment for the twelve months ended December 31, 2019 has been classified as a TDR due to economic concessions granted, which consisted of additional funds advanced without associated increases in collateral and an extended maturity date that will result in a delay in payment from the original contractual maturity.

The table below details loans that have been modified as TDRs for the year ended December 31, 2018.

<i>(In thousands)</i>	Number of loans	For the year ended December 31, 2018		
		Pre-modification outstanding recorded investment	Post-modification outstanding recorded investment	Additional provision for loan losses
Other commercial and industrial loans	1	\$ 300	\$ 300	\$ -
Commercial real estate loans	1	\$ 123	\$ 137	\$ 14

The TDRs individually evaluated for impairment have been classified as TDRs due to economic concessions granted, which consisted of additional funds advanced without associated increases in collateral and/or an extended maturity date that will result in a delay in payment from the original contractual maturity. The Company was required to increase the specific reserves against the commercial real estate loan individually reviewed for impairment by \$14,000, which was a component of the provision of loan losses in the fourth quarter of 2018.

The Company is required to disclose loans that have been modified as TDRs within the previous 12 months in which there was payment default after the restructuring. The Company defines payment default as any loans 90 days past due on contractual payments.

The Company had no loans that had been modified as TDRs during the twelve months prior to December 31, 2019, which had subsequently defaulted during the year ended December 31, 2019.

The Company had no loans that had been modified as TDRs during the twelve months prior to December 31, 2018, which had subsequently defaulted during the year ended December 31, 2018.

When the Company modifies a loan within a portfolio segment that is individually evaluated for impairment, a potential impairment is analyzed either based on the present value of the expected future cash flows discounted at the interest rate of the original loan terms or the fair value of the collateral less costs to sell. If it is determined that the value of the loan is less than its recorded investment, then impairment is recognized as a component of the provision for loan losses, an associated increase to the allowance for loan losses or as a charge-off to the allowance for loan losses in the current period.

Impaired Loans

The following table summarizes impaired loans information by portfolio class:

	December 31, 2019			December 31, 2018		
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Recorded Investment	Unpaid Principal Balance	Related Allowance
<i>(In thousands)</i>						
With no related allowance recorded:						
1-4 family first-lien residential mortgages	\$ 1,027	\$ 1,027	\$ -	\$ 1,221	\$ 1,226	\$ -
Commercial real estate	3,996	4,067	-	2,387	2,448	-
Commercial lines of credit	86	86	-	228	228	-
Other commercial and industrial	69	77	-	451	452	-
Home equity and junior liens	40	40	-	-	-	-
Other consumer	55	55	-	-	-	-
With an allowance recorded:						
1-4 family first-lien residential mortgages	584	584	97	606	606	108
Commercial real estate	450	450	78	486	486	100
Commercial lines of credit	98	98	98	28	28	28
Other commercial and industrial	866	866	406	373	373	255
Home equity and junior liens	180	180	150	207	207	140
Other consumer	36	36	1	-	-	-
Total:						
1-4 family first-lien residential mortgages	1,611	1,611	97	1,827	1,832	108
Commercial real estate	4,446	4,517	78	2,873	2,934	100
Commercial lines of credit	184	184	98	256	256	28
Other commercial and industrial	935	943	406	824	825	255
Home equity and junior liens	220	220	150	207	207	140
Other consumer	91	91	1	-	-	-
Totals	\$ 7,487	\$ 7,566	\$ 830	\$ 5,987	\$ 6,054	\$ 631

The following table presents the average recorded investment in impaired loans for years ended December 31:

<i>(In thousands)</i>		2019		2018
1-4 family first-lien residential mortgages	\$	1,622	\$	1,842
Commercial real estate		3,868		4,555
Commercial lines of credit		295		343
Other commercial and industrial		1,015		965
Home equity and junior liens		220		224
Other consumer		76		-
Total	\$	7,096	\$	7,929

The following table presents the cash basis interest income recognized on impaired loans for the years ended December 31:

<i>(In thousands)</i>		2019		2018
1-4 family first-lien residential mortgages	\$	62	\$	61
Commercial real estate		190		175
Commercial lines of credit		16		28
Other commercial and industrial		66		38
Home equity and junior liens		11		12
Other consumer		7		-
Total	\$	352	\$	314

NOTE 6: ALLOWANCE FOR LOAN LOSSES

Changes in the allowance for loan losses for the years ended December 31, 2019 and 2018 and information pertaining to the allocation of the allowance for loan losses and balances of the allowance for loan losses and loans receivable based on individual and collective impairment evaluation by loan portfolio class at the indicated dates are summarized in the tables below. An allocation of a portion of the allowance to a given portfolio class does not limit the Company's ability to absorb losses in another portfolio class.

(In thousands)	December 31, 2019					
	1-4 family first-lien residential mortgage	Construction	Commercial real estate	Commercial lines of credit	Other commercial and industrial	
Allowance for loan losses:						
Beginning Balance	\$ 766	\$ -	\$ 3,578	\$ 730	\$ 1,285	
Charge-offs	(11)	-	-	(136)	(158)	
Recoveries	2	-	-	-	1	
Provisions (credits)	(177)	-	432	601	517	
Ending balance	\$ 580	\$ -	\$ 4,010	\$ 1,195	\$ 1,645	
Ending balance: related to loans individually evaluated for impairment	\$ 97	\$ -	\$ 78	\$ 98	\$ 406	
Ending balance: related to loans collectively evaluated for impairment	\$ 483	\$ -	\$ 3,932	\$ 1,097	\$ 1,239	
Loans receivables:						
Ending balance	\$ 209,559	\$ 3,963	\$ 254,257	\$ 58,617	\$ 82,092	
Ending balance: individually evaluated for impairment	\$ 1,611	\$ -	\$ 4,446	\$ 184	\$ 935	
Ending balance: collectively evaluated for impairment	\$ 207,948	\$ 3,963	\$ 249,811	\$ 58,433	\$ 81,157	

	Tax exempt	Home equity and junior liens	Other consumer	Unallocated ⁽¹⁾	Total
Allowance for loan losses:					
Beginning Balance	\$ 1	\$ 409	\$ 385	\$ 152	\$ 7,306
Charge-offs	-	(7)	(354)	-	(666)
Recoveries	-	-	60	-	63
Provisions	-	151	322	120	1,966
Ending balance	\$ 1	\$ 553	\$ 413	\$ 272	\$ 8,669
Ending balance: related to loans individually evaluated for impairment	\$ -	\$ 150	\$ 1	\$ -	\$ 830
Ending balance: related to loans collectively evaluated for impairment	\$ 1	\$ 403	\$ 412	\$ 272	\$ 7,839
Loans receivables:					
Ending balance	\$ 8,067	\$ 46,389	\$ 82,607	\$ 35,790	\$ 781,341
Ending balance: individually evaluated for impairment	\$ -	\$ 220	\$ 91	\$ -	\$ 7,487
Ending balance: collectively evaluated for impairment	\$ 8,067	\$ 46,169	\$ 82,516	\$ 35,790	\$ 773,854

⁽¹⁾ The ending balance of the loans receivable for the unallocated portion of the allowance includes loans held-for-sale. At December 31, 2019, the Bank had loans held-for-sale with a principal balance of \$35.8 million. These loans were still part of the portfolio as of December 31, 2019. Based on ASC 948, Mortgage Banking, loans shall be classified as held-for-sale once a decision has been made to sell the loans and shall be transferred to the held-for-sale category at lower of cost or fair value.

December 31, 2018

<i>(In thousands)</i>	1-4 family first-lien residential mortgage	Construction	Commercial real estate	Commercial lines of credit	Other commercial and industrial
Allowance for loan losses:					
Beginning Balance	\$ 865	\$ -	\$ 3,589	\$ 735	\$ 1,214
Charge-offs	(245)	-	(643)	(102)	(207)
Recoveries	21	-	-	66	-
Provisions	125	-	632	31	278
Ending balance	\$ 766	\$ -	\$ 3,578	\$ 730	\$ 1,285
Ending balance: related to loans individually evaluated for impairment	\$ 108	\$ -	\$ 100	\$ 28	\$ 255
Ending balance: related to loans collectively evaluated for impairment	\$ 658	\$ -	\$ 3,478	\$ 702	\$ 1,030
Loans receivables:					
Ending balance	\$ 232,523	\$ 7,121	\$ 212,314	\$ 44,235	\$ 63,359
Ending balance: individually evaluated for impairment	\$ 1,827	\$ -	\$ 2,873	\$ 256	\$ 824
Ending balance: collectively evaluated for impairment	\$ 230,696	\$ 7,121	\$ 209,441	\$ 43,979	\$ 62,535

	Tax exempt	Home equity and junior liens	Other consumer	Unallocated	Total
Allowance for loan losses:					
Beginning Balance	\$ 1	\$ 514	\$ 208	\$ -	\$ 7,126
Charge-offs	-	(17)	(248)	-	(1,462)
Recoveries	-	7	51	-	145
Provisions (credits)	-	(95)	374	152	1,497
Ending balance	\$ 1	\$ 409	\$ 385	\$ 152	\$ 7,306
Ending balance: related to loans individually evaluated for impairment	\$ -	\$ 140	\$ -	\$ -	\$ 631
Ending balance: related to loans collectively evaluated for impairment	\$ 1	\$ 269	\$ 385	\$ 152	\$ 6,675
Loans receivables:					
Ending balance	\$ 9,320	\$ 26,109	\$ 25,424		\$ 620,405
Ending balance: individually evaluated for impairment	\$ -	\$ 207	\$ -		\$ 5,987
Ending balance: collectively evaluated for impairment	\$ 9,320	\$ 25,902	\$ 25,424		\$ 614,418

The Company's methodology for determining its allowance for loan losses includes an analysis of qualitative factors that are added to the historical loss rates in arriving at the total allowance for loan losses needed for this general pool of loans. The qualitative factors include:

- Changes in national and local economic trends;
- The rate of growth in the portfolio;
- Trends of delinquencies and nonaccrual balances;
- Changes in loan policy; and
- Changes in lending management experience and related staffing.

Each factor is assigned a value to reflect improving, stable or declining conditions based on management's best judgment using relevant information available at the time of the evaluation. These qualitative factors, applied to each product class, make the evaluation inherently subjective, as it requires material estimates that may be susceptible to significant revision as more information becomes available. Adjustments to the factors are supported through documentation of changes in conditions in a narrative accompanying the allowance for loan losses analysis and calculation.

The allocation of the allowance for loan losses summarized on the basis of the Company's calculation methodology was as follows:

December 31, 2019					
<i>(In thousands)</i>	1-4 family first-lien residential mortgage	Construction	Commercial real estate	Commercial lines of credit	Other commercial and industrial
Specifically reserved	\$ 97	\$ -	\$ 78	\$ 98	\$ 406
Historical loss rate	43	-	98	106	34
Qualitative factors	440	-	3,834	991	1,205
Total	\$ 580	\$ -	\$ 4,010	\$ 1,195	\$ 1,645

	Tax exempt	Home equity and junior liens	Other consumer	Unallocated	Total
Specifically reserved	\$ -	\$ 150	\$ 1	\$ -	\$ 830
Historical loss rate	-	85	167	-	533
Qualitative factors	1	318	245	-	7,034
Other	-	-	-	272	272
Total	\$ 1	\$ 553	\$ 413	\$ 272	\$ 8,669

December 31, 2018					
<i>(In thousands)</i>	1-4 family first-lien residential mortgage	Construction	Commercial real estate	Commercial lines of credit	Other commercial and industrial
Specifically reserved	\$ 108	\$ -	\$ 100	\$ 28	\$ 255
Historical loss rate	87	-	85	20	24
Qualitative factors	571	-	3,393	682	1,006
Total	\$ 766	\$ -	\$ 3,578	\$ 730	\$ 1,285

	Tax exempt	Home equity and junior liens	Other consumer	Unallocated	Total
Specifically reserved	\$ -	\$ 140	\$ -	\$ -	\$ 631
Historical loss rate	-	15	155	-	386
Qualitative factors	1	254	230	-	6,137
Other	-	-	-	152	152
Total	\$ 1	\$ 409	\$ 385	\$ 152	\$ 7,306

NOTE 7: SERVICING

Loans serviced for others are not included in the accompanying consolidated statements of condition. At December 31, 2019 and 2018, the Bank serviced 195 and 206 residential mortgage loans for others, respectively. The unpaid principal balances of mortgage loans serviced for others were \$11.8 million and \$11.9 million at December 31, 2019 and 2018, respectively. The balance of capitalized servicing rights included in other assets at December 31, 2019 and 2018, was \$19,000 and \$16,000, respectively.

The following summarizes mortgage servicing rights capitalized and amortized:

<i>(In thousands)</i>	2019		2018	
Mortgage servicing rights capitalized	\$	16	\$	-
Mortgage servicing rights amortized	\$	13	\$	12

NOTE 8: PREMISES AND EQUIPMENT

A summary of premises and equipment at December 31, is as follows:

<i>(In thousands)</i>	2019		2018	
Land	\$	2,268	\$	2,205
Buildings		17,673		16,094
Furniture, fixtures and equipment		15,936		15,029
Construction in progress		4,575		3,599
		40,452		36,927
Less: Accumulated depreciation		17,753		16,304
	\$	22,699	\$	20,623

Depreciation expense in 2019 and 2018 was \$1.5 million and \$1.2 million, respectively.

NOTE 9: FORECLOSED REAL ESTATE

The Company is required to disclose the carrying amount of foreclosed residential real estate properties held at each reporting period as a result of obtaining physical possession of the property.

<i>(Dollars in thousands)</i>	Number of properties	December 31, 2019	Number of properties	December 31, 2018
Foreclosed residential real estate	-	\$ -	2	\$ 73

At December 31, 2019 and 2018, the Company reported \$341,000 and \$951,000, respectively, in residential real estate loans in the process of foreclosure.

NOTE 10: GOODWILL AND INTANGIBLE ASSETS

Goodwill represents the excess cost of an acquisition over the fair value of the net assets acquired. Goodwill is not amortized, but is evaluated annually for impairment or between annual evaluations in certain circumstances. Management performs an annual assessment of the Company's goodwill to determine whether or not any impairment of the carrying value may exist.

Of the \$4.5 million of goodwill carried on the Company's books as of December 31, 2019, \$3.8 million of this amount was due to prior periods acquisitions of bank branches and \$696,000 was due to the 2013 acquisition of the FitzGibbons Agency by Pathfinder Risk Management Company, Inc. and the 2015 acquisition of the Huntington Agency.

The Company is permitted to assess qualitative factors to determine if it is more likely than not that the fair value of the reporting unit is less than the carrying value. Based on the results of the assessment, management has determined that the carrying value of goodwill in the amount of \$4.5 million is not impaired as of December 31, 2019.

The identifiable intangible asset of \$149,000 as of December 31, 2019 was due to the acquisition of the FitzGibbons and Huntington Agencies and represents the amortized carrying amount of the customer lists intangible. The weighted average remaining amortization period of this intangible asset is 5.2 years.

The gross carrying amount and annual amortization for this identifiable intangible asset are as follows:

<i>(In thousands)</i>	December 31,	
	2019	2018
Gross carrying amount	\$ 243	\$ 243
Accumulated amortization	(94)	(78)
Net amortizing intangibles	\$ 149	\$ 165

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

<i>(In thousands)</i>	
2020	\$ 16
2021	16
2022	16
2023	16
2024	16
Thereafter	69
Total	\$ 149

NOTE 11: DEPOSITS

A summary of deposits at December 31 is as follows:

<i>(In thousands)</i>	2019	2018
Savings accounts	\$ 81,926	\$ 80,545
Time accounts	301,193	199,598
Time accounts of \$250,000 or more	120,450	77,224
Money management accounts	14,388	13,180
MMDA accounts	185,402	189,679
Demand deposit interest-bearing	64,533	57,407
Demand deposit noninterest-bearing	107,501	103,124
Mortgage escrow funds	6,500	6,303
Total Deposits	\$ 881,893	\$ 727,060

At December 31, 2019, the scheduled maturities of time deposits are as follows:

<i>(In thousands)</i>	
Year of Maturity:	
2020	\$ 386,920
2021	24,456
2022	4,639
2023	2,360
2024	1,499
Thereafter	1,769
Total	\$ 421,643

In addition to deposits obtained from its business operations within its target market areas, the Bank also obtains brokered deposits through various programs administered by Promontory Interfinancial Network and through other unaffiliated third-party financial institutions.

<i>(In thousands)</i>	At December 31,					
	2019			2018		
	Non-Brokered	Brokered	Total	Non-Brokered	Brokered	Total
Savings accounts	\$ 81,926	\$ -	\$ 81,926	\$ 80,545	\$ -	\$ 80,545
Time accounts	190,685	110,508	301,193	158,207	41,391	199,598
Time accounts of \$250,000 or more	94,455	25,995	120,450	77,224	-	77,224
Money management accounts	14,388	-	14,388	13,180	-	13,180
MMDA accounts	185,356	46	185,402	189,625	54	189,679
Demand deposit interest-bearing	64,533	-	64,533	57,407	-	57,407
Demand deposit noninterest-bearing	107,501	-	107,501	103,124	-	103,124
Mortgage escrow funds	6,500	-	6,500	6,303	-	6,303
Total Deposits	\$ 745,344	\$ 136,549	\$ 881,893	\$ 685,615	\$ 41,445	\$ 727,060

NOTE 12: BORROWED FUNDS

The composition of borrowings (excluding subordinated loans) at December 31 is as follows:

<i>(In thousands)</i>	2019	2018
Short-term:		
FHLB Advances	\$ 25,138	\$ 39,000
Total short-term borrowings	\$ 25,138	\$ 39,000
Long-term:		
FHLB advances	\$ 67,987	\$ 79,534
Total long-term borrowings	\$ 67,987	\$ 79,534

The principal balances, interest rates and maturities of the outstanding long-term borrowings, all of which are at a fixed rate, at December 31, 2019 are as follows:

Term	Principal	Rates
<i>(Dollars in thousands)</i>		
Advances with FHLB		
Due within 1 year	\$ 30,193	1.62 - 3.03%
Due within 2 years	25,969	1.74 - 3.10%
Due within 10 years	11,825	1.68 - 3.17%
Total advances with FHLB	\$ 67,987	
Total long-term fixed rate borrowings	\$ 67,987	

At December 31, 2019, scheduled repayments of long-term debt are as follows:

<i>(In thousands)</i>	
2020	\$ 30,193
2021	25,969
2022	11,000
2023	825
2024	-
Thereafter	-
Total	\$ 67,987

The Company has access to FHLB NY advances, under which it can borrow at various terms and interest rates. Residential mortgage loans with a carrying value of \$136.9 million and FHLB stock with a carrying value of \$4.8 million have been pledged by the Company under a blanket collateral agreement to secure the Company's borrowings at December 31, 2019. The total outstanding indebtedness under borrowing facilities with the FHLB cannot exceed the total value of the assets pledged under the blanket collateral agreement. The Company has a \$21.3 million line of credit available at December 31, 2019 with the Federal Reserve Bank of New

York through its Discount Window and has pledged various corporate and municipal securities against the line. The Company has \$15.0 million in lines of credit available with two other correspondent banks. \$10.0 million of that line of credit is available on an unsecured basis and the remaining \$5.0 million must be collateralized with investment securities. Interest on the lines is determined at the time of borrowing.

NOTE 13: SUBORDINATED LOANS

The Company has a non-consolidated subsidiary trust, Pathfinder Statutory Trust II, of which the Company owns 100% of the common equity. The Trust issued \$5,000,000 of 30-year floating rate Company-obligated pooled capital securities of Pathfinder Statutory Trust II (“Floating-Rate Debentures”). The Company borrowed the proceeds of the capital securities from its subsidiary by issuing floating rate junior subordinated deferrable interest debentures having substantially similar terms. The capital securities mature in 2037 and are treated as Tier 1 capital by the FDIC and FRB. The capital securities of the trust are a pooled trust preferred fund of Preferred Term Securities VI, Ltd., whose interest rate resets quarterly, and are indexed to the 3-month LIBOR rate plus 1.65%. These securities have a five-year call provision. The Company paid \$213,000 and \$199,000 in interest expense related to this issuance in 2019 and 2018, respectively. The Company guarantees all of these securities.

The Company's equity interest in the trust subsidiary is included in other assets on the Consolidated Statements of Financial Condition at December 31, 2019 and 2018. For regulatory reporting purposes, the Federal Reserve has indicated that the preferred securities will continue to qualify as Tier 1 Capital subject to previously specified limitations, until further notice. If regulators make a determination that Trust Preferred Securities can no longer be considered in regulatory capital, the securities become callable and the Company may redeem them.

On October 15, 2015, the Company executed a \$10.0 million non-amortizing Subordinated Loan with an unrelated third party that is scheduled to mature on October 1, 2025. The Company has the right to prepay the Subordinated Loan at any time after October 15, 2020 without penalty. The annual interest rate charged to the Company will be 6.25% through the maturity date of the subordinated loan. The Subordinated Loan is senior in the Company's credit repayment hierarchy only to the Company's common equity and, as a result, qualifies as Tier 2 capital for all future periods when applicable. The Company paid \$172,000 in origination and legal fees as part of this transaction. These fees will be amortized over the life of the Subordinated Loan through its first call date using the effective interest method. The effective cost of funds related to this transaction is 6.44% calculated under this method. Accordingly, interest expense of \$650,000 and \$647,000 were recorded in the years ended December 31, 2019 and 2018, respectively.

The composition of subordinated loans at December 31 is as follows:

<i>(In thousands)</i>	2019	2018
Subordinated loans:		
Junior subordinated debenture	\$ 5,155	\$ 5,155
Subordinated loan	9,973	9,939
Total subordinated loans	\$ 15,128	\$ 15,094

The principal balances, interest rates and maturities of the subordinated loans at December 31, 2019 are as follows:

Term	Principal	Rates
<i>(Dollars in thousands)</i>		
Subordinated loans:		
Due within 10 years	\$ 9,973	6.48%
Due within 18 years	5,155	3-Month Libor + 1.65%
Total subordinated loans	\$ 15,128	

At December 31, 2019, scheduled repayments of the subordinated loans:

<i>(In thousands)</i>	
2020	\$ -
2021	-
2022	-
2023	-
2024	-
Thereafter	15,128
Total	\$ 15,128

NOTE 14: EMPLOYEE BENEFITS AND DEFERRED COMPENSATION AND SUPPLEMENTAL RETIREMENT PLANS

The Company has a noncontributory defined benefit pension plan covering substantially all employees. The plan provides defined benefits based on years of service and final average salary. On May 14, 2012, the Company informed its employees of its decision to freeze participation and benefit accruals under the plan, primarily to reduce some of the volatility in earnings that can accompany the maintenance of a defined benefit plan. The plan was frozen on June 30, 2012. Compensation earned by employees up to June 30, 2012 is used for purposes of calculating benefits under the plan but there will be no future benefit accruals after this date. Participants as of June 30, 2012 will continue to earn vesting credit with respect to their frozen accrued benefits as they continue to work. In addition, the Company provides certain health and life insurance benefits for a limited number of eligible retired employees. The healthcare plan is contributory with participants' contributions adjusted annually; the life insurance plan is noncontributory. Employees with less than 14 years of service as of January 1, 1995, are not eligible for the health and life insurance retirement benefits.

The following tables set forth the changes in the plans' benefit obligations, fair value of plan assets and the plans' funded status as of December 31:

<i>(In thousands)</i>	Pension Benefits		Postretirement Benefits	
	2019	2018	2019	2018
Change in benefit obligations:				
Benefit obligations at beginning of year	\$ 10,095	\$ 10,469	\$ 454	\$ 481
Service cost	-	-	-	-
Interest cost	494	473	22	21
Plan participants' contribution	-	-	8	9
Actuarial loss (gain)	1,558	(581)	(27)	(16)
Benefits paid	(255)	(266)	(43)	(41)
Benefit obligations at end of year	11,892	10,095	414	454
Change in plan assets:				
Fair value of plan assets at beginning of year	14,522	14,956	-	-
Actual return on plan assets	2,718	(993)	-	-
Benefits paid	(255)	(266)	(43)	(41)
Plan participants' contribution	-	-	8	9
Employer contributions	-	825	35	32
Fair value of plan assets at end of year	16,985	14,522	-	-
Funded (unfunded) status - asset (liability)	\$ 5,093	\$ 4,427	\$ (414)	\$ (454)

The funded status of the pension was recorded within other assets on the statement of condition. The unfunded status of the postretirement plan is recorded within other liabilities on the statement of condition.

Amounts recognized in accumulated other comprehensive loss as of December 31 are as follows:

<i>(In thousands)</i>	Pension Benefits		Postretirement Benefits	
	2019	2018	2019	2018
Net loss	\$ 3,557	\$ 4,112	\$ 117	\$ 151
Tax Effect	929	1,074	31	40
	\$ 2,628	\$ 3,038	\$ 86	\$ 111

Gains and losses in excess of 10% of the greater of the benefit obligation or the fair value of assets are amortized over the average remaining service period of active participants.

The Company utilized the actual projected cash flows of the participants in both plans for the years ended December 31, 2019 and December 31, 2018. The following points address the approach taken.

1. An analysis of the defined benefit pension plan's expected future cash flows and high-quality fixed income investments currently available and expected to be available during the period to maturity of the pension benefits yielded a single discount rate of 3.97% at December 31, 2019.
2. An analysis of the postretirement health plan's expected future cash flows and high-quality fixed-income investments currently available and expected to be available during the period to maturity of the retiree medical benefits yielded a single discount rate of 3.97% at December 31, 2019.

3. Each discount rate was developed by matching the expected future cash flows of the Bank to high quality bonds. Every bond considered has earned ratings of at least AA by Fitch Group, AA by Standard & Poor's, or Aa2 by Moody's Investor Services.

The accumulated benefit obligation for the defined benefit pension plan was \$11.9 million and \$10.1 million at December 31, 2019 and 2018, respectively. The postretirement plan had an accumulated benefit obligation of \$414,000 and \$454,000 at December 31, 2019 and 2018, respectively.

The significant assumptions used in determining the benefit obligations as of December 31, are as follows:

	Pension Benefits		Postretirement Benefits	
	2019	2018	2019	2018
Weighted average discount rate	3.97%	4.97%	3.97%	4.97%
Rate of increase in future compensation levels	-	-	-	-

Assumed health care cost trend rates have a significant effect on the amounts reported for the postretirement health care plan. The annual rates of increase in the per capita cost of covered medical and prescription drug benefits for future years were assumed to be 4.50% for 2020, gradually decreasing to 4.20% in 2023 and remain at that level thereafter.

The composition of the net periodic benefit plan (benefit) cost for the years ended December 31 is as follows:

<i>(In thousands)</i>	Pension Benefits		Postretirement Benefits	
	2019	2018	2019	2018
Service cost	\$ -	\$ -	\$ -	\$ -
Interest cost	494	473	22	21
Expected return on plan assets	(934)	(1,037)	-	-
Amortization of transition obligation	-	-	-	-
Amortization of net losses	328	164	12	13
Amortization of unrecognized past service liability	-	-	(5)	(5)
Net periodic benefit plan (benefit) cost	\$ (112)	\$ (400)	\$ 29	\$ 29

The significant assumptions used in determining the net periodic benefit plan cost for years ended December 31, were as follows:

	Pension Benefits		Postretirement Benefits	
	2019	2018	2019	2018
Weighted average discount rate	3.97%	4.97%	3.97%	4.97%
Expected long term rate of return on plan assets	6.50%	6.50%	-	-
Rate of increase in future compensation levels	-	-	-	-

The long term rate of return on assets assumption was set based on historical returns earned by equities and fixed income securities, adjusted to reflect expectations of future returns as applied to the plan's target allocation of asset classes. Equities and fixed income securities were assumed to earn real rates of return in the ranges of 6.0%-8.0% and 3.0%-5.0%, respectively. The long-term inflation rate was estimated to be 2.5%. When these overall return expectations are applied to the plan's target allocation, the expected rate of return was determined to be in the range of 5.0% to 7.0%. Management chose to use a 6.5% expected long-term rate of return in 2019 and a 6.5% expected long-term rate of return in 2020 reflecting current economic conditions and expected rates of return. Based on the \$17.0 million fair value of plan assets at December 31, 2019, each 50 basis point decrease in the expected long-term rate of return would reduce after tax net income at 2020 expected marginal tax rate of 21.0% by approximately \$67,000.

The estimated net actuarial loss that will be amortized from accumulated other comprehensive loss into net periodic benefit plan income during 2020 is \$228,000. The estimated amortization of the unrecognized transition obligation and actuarial loss for the postretirement health plan in 2020 is \$10,000. The expected net periodic benefit plan benefit for 2020 is estimated to be \$379,000 for both retirement plans in aggregate.

Plan assets are invested in three diversified investment portfolios of the Pentegra Retirement Trust (the "Trust", formerly known as RSI Retirement Trust), a private placement investment fund. The Trust has been given discretion by the Plan Sponsor to determine the appropriate strategic asset allocation versus plan liabilities, as governed by the Trust's Investment Policy Statement. The Plan is structured to utilize a Total Return approach which seeks to fund the current and future liabilities of the Plan via long-term growth in assets.

The Plan's asset allocation targets to hold 48% of assets in equity securities via investment in the Long-Term Growth – Equity Portfolio ('LTGE'), 16% in intermediate-term investment grade bonds via investment in the Long-Term Growth – Fixed-Income Portfolio ('LTGFI'), 35% in long duration bonds via the Liability Focused Fixed-Income Portfolio ('LFFI'), and 1% in a cash equivalents portfolio (for liquidity).

LTGE is a diversified portfolio that invests in a number of actively and passively managed equity-focused mutual funds and collective investment trusts. The Portfolio holds a diversified mix of equity funds in order to gain exposure to the U.S. and non-U.S. equity markets. LTGFI is a diversified portfolio that invests in a number of fixed-income mutual funds and collective investment trusts. The Portfolio invests primarily in intermediate-term bond funds with a focus on Core Plus fixed-income investment approaches. LFFI is a diversified high quality fixed-income portfolio that currently invests in passively managed collective investment trusts that hold long duration bonds.

The investment objectives, investment strategies and risk of each of the daily valued and unitized Portfolios and the funds held within the Portfolios are detailed in the Private Placement Memorandum and the Trust's Investment Policy Statement.

The overall long-term investment objectives are to maintain plan assets at a level that will sufficiently cover long-term obligations and to generate a return on plan assets that will meet or exceed the rate at which long-term obligations will grow. The LTGE and LTGFI Portfolios are designed to provide long-term growth of equity and fixed-income assets with the objective of achieving an investment return in excess of the cost of funding the active life, deferred vested, and all 30-year term and longer obligations of retired lives in the Trust. The LFFI Portfolio is designed to fund the Trust's estimated retired lives class of liabilities for 30 years. The ALT Strategy is designed to add diversification via the addition of relatively low correlation assets. Risk/volatility is further managed by the distinct investment objectives of each of the Trust's Portfolios.

Pension plan assets measured at fair value are summarized below:

<i>(In thousands)</i>	At December 31, 2019			Total Fair Value
	Level 1	Level 2	Level 3	
Asset Category:				
Mutual Funds - Equity				
Large-cap value (a)	\$ -	\$ 1,432	\$ -	\$ 1,432
Large-cap Growth (b)	-	1,470	-	1,470
Large-cap Core (c)	-	1,075	-	1,075
Mid-cap Value (d)	-	307	-	307
Mid-cap Growth (e)	-	328	-	328
Mid-cap Core (f)	-	314	-	314
Small-cap Value (g)	-	220	-	220
Small-cap Growth (h)	-	466	-	466
Small-cap Core (i)	-	211	-	211
International Equity (j)	-	1,733	-	1,733
Equity -Total	-	7,556	-	7,556
Fixed Income Funds				
Fixed Income - US Core (k)	-	2,356	-	2,356
Intermediate Duration (l)	-	3,708	-	3,708
Long Duration (m)	-	3,084	-	3,084
Fixed Income -Total	-	9,148	-	9,148
Company Common Stock	-	-	-	-
Cash Equivalents-Money market*	48	233	-	281
Total	\$ 48	\$ 16,937	\$ -	\$ 16,985

At December 31, 2018

<i>(In thousands)</i>	Level 1	Level 2	Level 3	Total Fair Value
<i>Asset Category:</i>				
Mutual Funds - Equity				
Large-cap value (a)	\$ -	\$ 1,132	\$ -	\$ 1,132
Large-cap Growth (b)	-	1,157	-	1,157
Large-cap Core (c)	-	821	-	821
Mid-cap Value (d)	-	242	-	242
Mid-cap Growth (e)	-	247	-	247
Mid-cap Core (f)	-	250	-	250
Small-cap Value (g)	-	193	-	193
Small-cap Growth (h)	-	337	-	337
Small-cap Core (i)	-	189	-	189
International Equity (j)	-	1,409	-	1,409
Equity -Total	-	5,977	-	5,977
Fixed Income Funds				
Fixed Income-US Core (k)	-	2,207	-	2,207
Intermediate Duration (l)	-	3,255	-	3,255
Long Duration (m)	-	2,521	-	2,521
Fixed Income-Total	-	7,983	-	7,983
Company Common Stock	-	-	-	-
Cash Equivalents-Money market*	271	291	-	562
Total	\$ 271	\$ 14,251	\$ -	\$ 14,522

*Includes cash equivalents investments in equity and fixed income strategies

- a) This category contains large-cap stocks with above-average yield. The portfolio typically holds between 60 and 70 stocks.
- b) This category seeks long-term capital appreciation by investing primarily in large growth companies based in the U.S.
- c) This fund tracks the performance of the S&P 500 index by purchasing the securities represented in the index in approximately the same weightings as the index.
- d) This category employs an indexing investment approach designed to track the performance of the CRSP US Mid-Cap Value Index.
- e) This category employs an indexing investment approach designed to track the performance of the CRSP US Mid-Cap Growth Index.
- f) This category seeks to track the performance of the S&P Midcap 400 Index.
- g) This category consists of a selection of investments based on the Russell 2000 Value Index.
- h) This category consists of a mutual fund invested in smallcap growth companies along with a fund invested in a selection of investments based on the Russell 2000 Growth Index.
- i) This category consists of a mutual fund investing in readily marketable securities of U.S. companies with market capitalizations within the smallest 10% of the market universe, or smaller than the 1000th largest US company.
- j) This category invests primarily in medium to large non-US companies in developed and emerging markets. Under normal circumstances, at least 80% of total assets will be invested in equity securities, including common stocks, preferred stocks, and convertible securities.
- k) This category currently includes equal investments in three mutual funds, two of which usually hold at least 80% of fund assets in investment grade fixed income securities, seeking to outperform the Barclays US Aggregate Bond Index while maintaining a similar duration to that index. The third fund targets investments of 50% or more in mortgage-backed securities guaranteed by the US government and its agencies.
- l) This category consists mostly of a fund which seeks to track the Barclays Capital US Corporate A or Better 5-20 Year, Bullets only Index, along with a diversified mutual fund holding fixed income securities rated A or better.
- m) This category consists of a fund that seeks to approximate the performance of the Barclays Capital US Corporate A or Better, 20+ Year Bullets Only Index over the long term.

For the fiscal year ending December 31, 2020, the Company expects to contribute approximately \$36,000 to the postretirement plan.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid from both retirement plans:

<i>(In thousands)</i>	Pension Benefits	Postretirement Benefits	Total
Years ending December 31:			
2020	\$ 320	\$ 36	\$ 356
2021	333	37	370
2022	374	38	412
2023	451	25	476
2024	470	25	495
Years 2025-2029	3,170	118	3,288

The Company also offers a 401(k) plan to its employees. Contributions to this plan by the Company were \$393,000 and \$371,000 for 2019 and 2018, respectively. In addition, the Company made \$291,000 and \$273,000 of safe harbor contributions to the plan in 2019 and 2018, respectively.

The Company maintains optional deferred compensation plans for its directors and certain executive officers, whereby fees and income normally received are deferred and paid by the Company based upon a payment schedule commencing between the ages of 65 and 70 and continuing monthly for 10 years. At December 31, 2019 and 2018, other liabilities include approximately \$2.8 million and \$2.7 million, respectively, relating to deferred compensation. Deferred compensation expense for the years ended December 31, 2019 and 2018 amounted to approximately \$349,000 and \$258,000, respectively.

To assist in the funding of the Company's benefits under the supplemental executive retirement plan and deferred compensation plans, the Company is the owner of single premium life insurance policies on selected participants. At December 31, 2019 and 2018, the cash surrender values of these policies were \$17.4 million and \$16.9 million, respectively.

The Bank adopted a Defined Contribution Supplemental Executive Retirement Plan (the "SERP"), effective January 1, 2014. The SERP benefits certain key senior executives of the Bank who are selected by the Board to participate, including our Named Executive Officers. The SERP is intended to provide a benefit from the Bank upon retirement, death, disability or voluntary or involuntary termination of service (other than "for cause"), subject to the requirements of Section 409A of the Internal Revenue Code. Accordingly, the SERP obligates the Bank to make a contribution to each executive's account on the last business day of each calendar year. In addition, the Bank, may, but is not required to, make additional discretionary contributions to the executive's accounts from time to time. All executives currently participating in the plan, including the Named Executive Officers, are fully vested in the Bank's contribution to the plan. In the event the executive is terminated involuntarily or resigns for good reason within 24 months following a change in control, the Bank is required to make additional annual contributions the lesser of: (1) three years or (2) the number of years remaining until the executive's benefit age, subject to potential reduction to avoid an excess parachute payment under Code Section 280G. In the event of the executive's death, disability or termination within 24 months after a change in control, the executive's account will be paid in a lump sum to the executive or his beneficiary, as applicable. In the event the executive is entitled to a benefit from the SERP due to retirement or other termination of employment, the benefit will be paid either in a lump sum or in 10 annual installments as detailed in his or her participant agreement. At December 31, 2019 and 2018, other liabilities included \$836,000 and \$745,000, respectively, accrued under this plan.

NOTE 15: STOCK BASED COMPENSATION PLANS

All share and per share values have been adjusted, where appropriate, by the 1.6472 exchange rate used in the Conversion and Offering that occurred on October 16, 2014.

April 2010 Stock Option Grants

In June 2011, the board of directors of the Company approved the grant of stock option awards to its directors and executive officers under the 2010 Stock Option Plan that had 247,080 shares authorized for award. A total of 74,124 stock option awards were granted to the nine directors of the Company, at that time, and 123,540 stock option awards, in total, were granted to the Chief Executive Officer and the Company's then four senior vice presidents. The awards vested ratably over five years (20% per year for each year of the participant's service with the Company) with an expiration date ten years from the date of the grant, or June 2021. The fair value of each option grant was established at the date of grant using the Black-Scholes option pricing model. The Black-Scholes model used the following weighted average assumptions: risk-free interest rate of 2.2%; volatility factors of the expected market price of the Company's common stock of 0.45; weighted average expected lives of the options of 7.0 years; cash dividend yield of 1.49%. Based upon these assumptions, the weighted average fair value of options granted was \$2.29.

In July 2013, the board of directors of the Company approved the grant of 16,472 stock option awards in total to two newly elected directors of the Company. The awards vested ratably over five years (20% per year for each year of the participant's service with the Company) with an expiration date ten years from the date of the grant, or July 2023. The fair value of each option grant was established at the date of grant using the Black-Scholes option pricing model. The Black-Scholes model used the following weighted average assumptions: risk-free interest rate of 2.0%; volatility factors of the expected market price of the Company's common stock of 0.45; weighted average expected lives of the options of 7.0 years; cash dividend yield of 1.0%. Based upon these assumptions, the weighted average fair value of options granted was \$3.69.

In November 2015, the board of directors of the Company approved the grant of 16,472 stock option awards in total to two newly elected directors of the Company. The awards vest ratably over five years (20% per year for each year of the participant's service with the Company) and will expire ten years from the date of the grant, or November 2025. The fair value of each option grant was established at the date of grant using the Black-Scholes option pricing model. The Black-Scholes model used the following weighted average assumptions: risk-free interest rate of 1.9%; volatility factors of the expected market price of the Company's common stock of 0.23; weighted average expected lives of the options of 7.0 years; cash dividend yield of 1.4%. Based upon these assumptions, the weighted average fair value of options granted was \$2.56.

In April 2016, the board of directors of the Company approved the grant of 47,768 stock option awards in total to three officers and one recently promoted senior officer. The awards vest ratably over five years (20% per year for each year of the participant's service with the Company) and will expire ten years from the date of the grant, or April 2026. The fair value of each option grant was established at the date of grant using the Black-Scholes option pricing model. The Black-Scholes model used the following weighted average assumptions: risk-free interest rate of 1.6%; volatility factors of the expected market price of the Company's common stock of 0.32; weighted average expected lives of the options of 7.0 years; cash dividend yield of 1.55%. Based upon these assumptions, the weighted average fair value of options granted was \$3.17.

May 2016 Stock Option Grants

In May 2016, the board of directors of the Company approved the grant of stock option awards to its directors, executive officers, senior officers and officers under the 2016 Equity Incentive Plan that was approved at the Annual Meeting of Shareholders on May 4, 2016 when 263,605 shares were authorized for award.

A total of 79,083 stock option awards were granted to the nine directors of the Company and 44,812 stock option awards, in total, were granted to thirteen officers. The awards vest ratably over five years (20% per year for each year of the participant's service with the Company) and will expire ten years from the date of the grant, or May 2026. The fair value of each option grant was established at the date of grant using the Black-Scholes option pricing model. The Black-Scholes model used the following weighted average assumptions: risk-free interest rate of 1.6%; volatility factors of the expected market price of the Company's common stock of 0.32; weighted average expected lives of the options of 7.0 years; cash dividend yield of 1.55%. Based upon these assumptions, the weighted average fair value of options granted was \$3.32.

A total of 92,261 stock option awards were granted to the Chief Executive Officer, two executive officers and three senior officers. The awards vest ratably over seven years (approximately 14.28% per year for each year of the participant's service with the Company) with the exception of one senior officer whose awards vested upon retirement on August 1, 2017 and will expire ten years from the date of the grant, or May 2026. The fair value of each option grant was established at the date of grant using the Black-Scholes option pricing model. The Black-Scholes model used the following weighted average assumptions: risk-free interest rate of 1.7%; volatility

factors of the expected market price of the Company's common stock of 0.32; weighted average expected lives of the options of 7.0 years; cash dividend yield of 1.55%. Based upon these assumptions, the weighted average fair value of options granted was \$3.59.

Activity in the stock option plans is as follows:

<i>(Shares in thousands)</i>	Options Outstanding		Shares Exercisable	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
Outstanding at December 31, 2017	395	\$ 9.68	168	\$ 7.61
Granted	-	\$ -	-	\$ -
Newly vested	-	11.05	52	-
Exercised	(67)	-	(67)	-
Expired	(3)	11.35	-	-
Outstanding at December 31, 2018	325	\$ 10.50	153	\$ 9.65
Granted	-	\$ -	-	\$ -
Newly vested	-	11.10	62	-
Exercised	(21)	-	(21)	-
Expired	(1)	11.35	-	-
Outstanding at December 31, 2019	303	\$ 10.51	194	\$ 10.04

The aggregate intrinsic value of a stock option represents the total pre-tax intrinsic value (the amount by which the current market value of the underlying stock exceeds the exercise price of the option) that would have been received by the option holders had all option holders exercised their options prior to the expiration date. The intrinsic value can change based on fluctuations in the market value of the Company's stock. At December 31, 2019, the intrinsic value of the stock options was \$1.0 million. At December 31, 2018, the intrinsic value of the stock options was \$1.7 million.

At December 31, 2019, the average remaining contractual life of outstanding options and shares exercisable were 5.7 years and 5.3 years, respectively.

May 2016 Restricted Stock Unit Grants

In May 2016, the board of directors of the Company approved the grant of restricted stock units to its directors, executive officers, senior officers and officers under the 2016 Equity Incentive Plan that was approved at the Annual Meeting of Shareholders on May 4, 2016 when 105,442 shares were authorized for award. A total of 31,635 restricted stock units were granted to the nine directors of the Company and 8,436 restricted stock units, in total, were granted to two officers. The units vest ratably over five years (20% per year for each year of the participant's service with the Company).

A total of 46,570 restricted stock units, in total, were granted to the Chief Executive Officer, two executive officers and three senior officers. The units vest ratably over seven years (approximately 14.28% per year for each year of the participant's service with the Company) with the exception of one senior officer whose units vested upon retirement on August 1, 2017.

The compensation expense of the stock option awards and restricted stock units is based on the fair value of the instruments on the date of grant. The Company recorded compensation expense in the amount of \$291,000 and \$398,000 in 2019 and 2018, respectively, and is expected to record \$289,000, \$153,000, \$92,000 and \$31,000 in 2020 through 2023.

NOTE 16: EMPLOYEE STOCK OWNERSHIP PLAN

The Bank established the Pathfinder Bank Employee Stock Ownership Plan ("Plan") to purchase stock of the Company for the benefit of its employees. In July 2011, the Plan received a \$1.1 million loan from Community Bank, N.A., guaranteed by the Company, to fund the Plan's purchase of 125,000 shares of the Company's treasury stock. The loan was being repaid in equal quarterly installments of principal plus interest over ten years beginning October 1, 2011. Interest accrued at the Wall Street Journal Prime Rate plus 1.00%, and was secured by the unallocated shares of the ESOP stock. This loan was refinanced in connection with the Conversion and Offering that occurred on October 16, 2014.

In connection with the Conversion and Offering, the ESOP purchased 105,442 shares issued in the offering by obtaining a loan from the Company which was used to purchase both the additional shares and refinance the remaining outstanding balance on the loan from Community Bank N.A. There were 138,982.5 shares associated with the refinanced loan resulting in a total of 244,424.5 shares associated with the new loan provided by the Company.

The ESOP loan from the Company has a ten year term and is being repaid in equal payments of principal and interest under a fixed rate of interest equal to 3.25% which was the prime rate of interest on the date of the closing of the offering. This ESOP loan from the Company, also referred to as an internally leveraged ESOP, does not appear as a liability on the Company's consolidated statement of condition as of December 31, 2019 in accordance with ASC 718-40-25-9d.

In accordance with the payment of principal on the loan, a proportionate number of shares are allocated to the employees over the ten year time horizon of the loan. Participants' vesting interest in the shares of Company stock is at the rate of 20% per year. Compensation expense is recorded based on the number of shares released to the participants times the average market value of the Company's stock over that same period. Dividends on unallocated shares, recorded as compensation expense on the income statement, are made available to the participants' account. The Company recorded \$369,000 and \$411,000 in compensation expense in 2019 and 2018, respectively, including \$30,000 and \$36,000 for dividends on unallocated shares in these same time periods. At December 31, 2019, there were 116,102 unearned ESOP shares with a fair value of \$1.6 million.

NOTE 17: INCOME TAXES

The provision for income taxes for the years ended December 31, is as follows:

<i>(In thousands)</i>	2019	2018
Current	\$ 1,181	\$ 203
Deferred	(16)	343
	\$ 1,165	\$ 546

The provision for income taxes includes the following

<i>(In thousands)</i>	2019	2018
Federal Income Tax	\$ 1,244	\$ 714
State Tax	(79)	(168)
	\$ 1,165	\$ 546

The components of the net deferred tax asset, included in other assets as of December 31, are as follows:

<i>(In thousands)</i>	2019	2018
Assets:		
Deferred compensation	\$ 970	\$ 895
Allowance for loan losses	2,266	1,909
Postretirement benefits	108	119
Subordinated loan interest	22	23
Investment securities	77	1,002
Loan origination fees	-	35
Held-to-maturity securities	14	21
Stock-based compensation	101	166
Community service activities	22	153
Other	587	374
Total	4,167	4,697
Liabilities:		
Prepaid pension	(1,331)	(1,157)
Depreciation	(1,667)	(1,441)
Accretion	(118)	(177)
Intangible assets	(1,004)	(1,004)
Mortgage servicing rights	(5)	(4)
Prepaid expenses and transaction fees	(103)	(69)
Loan origination fees	(29)	-
Total	(4,257)	(3,852)
	(90)	845
Less: deferred tax asset valuation allowance	(136)	-
Net deferred tax (liability) asset	\$ (226)	\$ 845

Realization of deferred tax assets is dependent upon the generation of future taxable income or the existence of sufficient taxable income within the carry back period. A valuation allowance is provided when it is more likely than not that some portion, or all of the deferred tax assets, will not be realized. In assessing the need for a valuation allowance, management considers the scheduled reversal of the deferred tax liabilities, the level of historical taxable income and the projected future level of taxable income over the periods in which the temporary differences comprising the deferred tax assets will be deductible.

Deferred income tax assets and liabilities are determined using the liability method. Under this method, the net deferred tax asset or liability is recognized for the future tax consequences. This is attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases as well as net operating and capital loss carry forwards. Deferred tax assets and liabilities are measured using enacted tax rates applied to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income tax expense in the period that includes the enactment date. If current available evidence about the future raises doubt about the likelihood of a deferred tax asset being realized, a valuation allowance is established. The judgment about the level of future taxable income, including that which is considered capital, is inherently subjective and is reviewed on a continual basis as regulatory and business factors change.

Banking corporations operating in New York State are taxed under the New York State General Business Corporation Franchise Tax provisions. Under this New York tax law, the tax rate on the business income base is 6.5%. However, various modifications are available to community banks (defined as banks with less than \$8 billion in total assets) regarding certain deductions associated with interest income. However, various modifications are available to community banks (defined as banks with less than \$8 billion in total assets) regarding certain deductions associated with interest income. Commencing on January 1, 2018, the Company changed its elected interest income subtraction methodology under which its New York income tax expense is calculated. This change in the Company's interest income subtraction election was adopted following changes to the New York State Tax Code enacted in 2015 and resulted in a reduction of the Company's effective income tax rate in New York beginning in 2018. It is anticipated that the Company's New York effective income tax rate will remain substantially at 0.0% in future periods under current law. In the first quarter of 2019, the Company established, through a charge to earnings, a valuation allowance in the amount of \$136,000 in order to establish a reserve against deferred tax assets related to New York income taxes. The establishment of this reserve increased the Company's effective tax rate by 2.5% in 2019. This reserve was established as the items giving rise to the deferred tax assets related to New York taxes are unlikely to further reduce the Company's income taxes in the future following the adoption of the new subtraction methodology. There were no valuation allowances against deferred tax assets at December 31, 2018.

In 2019, the Company's effective tax rate was 21.4%, as compared to 11.9% in 2018. A reconciliation of the federal statutory income tax rate to the effective income tax rate for the years ended December 31, is as follows:

	2019	2018
Federal statutory income tax rate	21.0 %	21.0 %
State tax, net of federal benefit	(1.5)	(3.7)
Tax-exempt interest income	(0.9)	(4.3)
Increase in value of bank owned life insurance less premiums paid	(1.7)	(1.9)
Change in valuation allowance	2.5	-
Other	1.9	0.9
Effective income tax rate - Pathfinder Bancorp, Inc.	21.3 %	12.0 %
Minority interest	0.1	(0.1)
Effective income tax rate	21.4 %	11.9 %

NOTE 18: COMMITMENTS AND CONTINGENCIES

The Company is a party to financial instruments with off-balance sheet risk in the normal course of business to meet the financing needs of its customers. These financial instruments include commitments to extend credit and standby letters of credit. Such commitments involve, to varying degrees, elements of credit risk in excess of the amount recognized in the consolidated statement of condition. The contractual amount of those commitments to extend credit reflects the extent of involvement the Company has in this particular class of financial instrument. The Company's exposure to credit loss in the event of nonperformance by the other party to the financial instrument for commitments to extend credit is represented by the contractual amount of the instrument. The Company uses the same credit policies in making commitments as it does for on-balance sheet instruments.

At December 31, 2019 and 2018, the following financial instruments were outstanding whose contract amounts represent credit risk:

<i>(In thousands)</i>	Contract Amount	
	2019	2018
Commitments to grant loans	\$ 47,606	\$ 37,354
Unfunded commitments under lines of credit	81,038	74,284
Unfunded commitments related to construction loans in progress	3,214	5,058
Standby letters of credit	2,082	2,007

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 commitment amounts are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. The Company evaluates each customer's creditworthiness on a case-by-case basis. The amount of collateral obtained, if deemed necessary by the Company upon extension of credit, is based on management's credit evaluation of the counter party. Collateral held varies but may include residential real estate and income-producing commercial properties. Loan commitments outstanding at December 31, 2019 with variable interest rates and fixed interest rates amounted to approximately \$122.8 million and \$11.1 million, respectively. These outstanding loan commitments carry current market rates.

Unfunded commitments under standby letters of credit, revolving credit lines and overdraft protection agreements are commitments for possible future extensions of credit to existing customers. These lines of credit usually do not contain a specified maturity date and may not be drawn upon to the total extent to which the Company is committed.

Letters of credit written are conditional commitments issued by the Company to guarantee the performance of a customer to a third party. Generally, all letters of credit, when issued have expiration dates within one year. The credit risk involved in issuing letters of credit is essentially the same as those that are involved in extending loan facilities to customers. The Company generally holds collateral and/or personal guarantees supporting these commitments. Management believes that the proceeds obtained through a liquidation of collateral and the enforcement of guarantees would be sufficient to cover the potential amount of future payments required under the corresponding guarantees.

NOTE 19: DIVIDENDS AND RESTRICTIONS

The Company's ability to pay dividends to its shareholders is largely dependent on the Bank's ability to pay dividends to the Company. In addition to state law requirements and the capital requirements discussed in Note 20, federal statutes, regulations and policies limit the circumstances under which the Bank may pay dividends. The amount of retained earnings legally available under these regulations approximated \$14.1 million as of December 31, 2019. Dividends paid by the Bank to the Company would be prohibited if the effect thereof would cause the Bank's capital to be reduced below applicable minimum capital requirements. The Bank made no dividend payments to the Company in the years ended December 31, 2019, December 31, 2018 or December 31, 2017.

Capital adequacy is evaluated primarily by the use of ratios which measure capital against total assets, as well as against total assets that are weighted based on defined risk characteristics. The Company's goal is to maintain a strong capital position, consistent with the risk profile of its banking operations. This strong capital position serves to support growth and expansion activities while at the same time exceeding regulatory standards. At December 31, 2019, the Bank met the regulatory definition of a "well-capitalized" institution, i.e. a leverage capital ratio exceeding 5%, a Tier 1 risk-based capital ratio exceeding 8%, Tier 1 common equity exceeding 6.5%, and a total risk-based capital ratio exceeding 10%.

In addition to establishing the minimum regulatory capital requirements, the regulations limit capital distributions and certain discretionary bonus payments to management if the institution does not hold a "capital conservation buffer" consisting of 2.5% of common equity Tier 1 capital to risk-weighted assets above the amount necessary to meet its minimum risk-based capital requirements. The buffer is separate from the capital ratios required under the Prompt Corrective Action ("PCA") standards. In order to avoid these restrictions, the capital conservation buffer effectively increases the minimum levels of the following capital to risk-

weighted assets ratios: (1) Core Capital, (2) Total Capital and (3) Common Equity. The capital conservation buffer requirement is now fully implemented at 2.5% of risk-weighted assets as of January 1, 2019. At December 31, 2019, the Bank exceeded all regulatory required minimum capital ratios, including the capital buffer requirements.

NOTE 20: REGULATORY MATTERS

The Bank is subject to various regulatory capital requirements administered by the federal banking agencies. 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 consolidated financial statements. Under capital adequacy guidelines and the regulatory framework for prompt corrective action, the Bank must meet specific capital guidelines that involve quantitative measures of its assets, liabilities, and certain off-balance sheet items as calculated under regulatory accounting practices. The capital amounts and classifications are also subject to qualitative judgments by the regulators about components, risk weightings, and other factors.

Quantitative measures established by regulation to ensure capital adequacy require the Bank to maintain amounts and ratios (set forth in the table below) of total and Tier 1 capital (as defined in the regulations) to risk-weighted assets (as defined), and of Tier 1 capital (as defined) to average assets (as defined).

As of December 31, 2019, the Bank's most recent notification from the Federal Deposit Insurance Corporation categorized the Bank as "well-capitalized", under the regulatory framework for prompt corrective action. To be categorized as "well-capitalized", the Bank must maintain total risk-based, Tier 1 risk-based and Tier 1 leverage ratios as set forth in the tables below. There are no conditions or events since that notification that management believes have changed the Bank's category.

As noted above, the regulations also impose a "capital conservation buffer" consisting of 2.5% of common equity Tier 1 capital to risk-weighted assets above the amount necessary to meet its minimum risk-based capital requirements. The buffer is separate from the capital ratios required under the Prompt Corrective Action ("PCA") standards and imposes restrictions on dividend distributions and discretionary bonuses. In order to avoid these restrictions, the capital conservation buffer effectively increases the minimum levels of the following capital to risk-weighted assets ratios: (1) Core Capital, (2) Total Capital and (3) Common Equity. The capital conservation buffer requirement is now fully implemented at 2.5% of risk-weighted assets as of January 1, 2019. At December 31, 2019, the Bank exceeded all regulatory required minimum capital ratios, including the capital buffer requirements.

The Bank's actual capital amounts and ratios as of December 31, 2019 and 2018 are presented in the following table.

	Actual		Minimum For Capital Adequacy Purposes		Minimum To Be "Well-Capitalized" Under Prompt Corrective Provisions		Minimum for Capital Adequacy With Buffer	
	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
<i>(Dollars in thousands)</i>								
As of December 31, 2019:								
Total Core Capital (to Risk-Weighted Assets)	\$95,093	12.28%	\$61,934	8.00%	\$77,418	10.00%	\$81,289	10.50%
Tier 1 Capital (to Risk-Weighted Assets)	\$86,424	11.16%	\$46,451	6.00%	\$61,934	8.00%	\$65,805	8.50%
Tier 1 Common Equity (to Risk-Weighted Assets)	\$86,424	11.16%	\$34,838	4.50%	\$50,322	6.50%	\$54,192	7.00%
Tier 1 Capital (to Assets)	\$86,424	8.20%	\$42,175	4.00%	\$52,719	5.00%	\$52,719	5.00%
As of December 31, 2018:								
Total Core Capital (to Risk-Weighted Assets)	\$83,177	13.69%	\$48,593	8.00%	\$60,741	10.00%	\$63,778	10.50%
Tier 1 Capital (to Risk-Weighted Assets)	\$75,871	12.49%	\$36,445	6.00%	\$48,593	8.00%	\$51,630	8.50%
Tier 1 Common Equity (to Risk-Weighted Assets)	\$75,871	12.49%	\$27,334	4.50%	\$39,482	6.50%	\$42,519	7.00%
Tier 1 Capital (to Assets)	\$75,871	8.31%	\$36,522	4.00%	\$45,652	5.00%	\$45,652	5.00%

The Company's goal is to maintain a strong capital position, consistent with the risk profile of its subsidiary banks that supports growth and expansion activities while at the same time exceeding regulatory standards. At December 31, 2019, the Bank exceeded all regulatory required minimum capital ratios and met the regulatory definition of a "well-capitalized" institution, i.e. a leverage capital ratio exceeding 5%, a Tier 1 risk-based capital ratio exceeding 6% and a total risk-based capital ratio exceeding 10%.

The Bank is required to maintain average balances on hand or with the Federal Reserve Bank. At December 31, 2019 and 2018, these reserve balances amounted to \$-0- and \$4.0 million, respectively and are included in cash and due from banks in the statement of condition.

NOTE 21: INTEREST RATE DERIVATIVE

The Company is exposed to certain risks from both its business operations and economic conditions. The Company principally manages its exposures to a wide variety of business and operational risks through the management of its core business activities. As part of the Company's overall risk management processes, the Company manages its economic risks, including interest rate, liquidity and credit risk, primarily by managing the amount, sources and duration of certain balance sheet assets and liabilities. In the normal course of business, the Company also uses derivative financial instruments as an additional risk management tool. Financial derivatives are recorded at fair value as other assets.

Among the array of interest rate derivative transactions potentially available to the Company are interest rate swaps. The Company uses interest rate swaps as part of its interest rate risk management strategy. Interest rate swaps, designated as fair value hedges, involve the receipt of variable amounts from a counterparty in exchange for the Company making fixed payments over the life of the agreements without the exchange of the underlying notional amount. The gain or loss on the derivative as well as the offsetting gain of loss on the hedged item attributable to the hedged risk are recognized in earnings. The Company entered into a pay-fixed/receive variable interest rate swap with a notional amount of \$9.2 million in April 2019, which was designated as a fair value hedge associated with specific pools within the Company's fixed-rate consumer loan portfolio.

As of December 31, 2019, the following amounts were recorded on the balance sheet related to the cumulative basis adjustments for fair value hedges:

<i>(In thousands)</i>	Carrying Amount of the Hedged Assets at December 31, 2019	Cumulative Amount of Fair Value Hedging Adjustment Included in The Carrying Amount of the Hedged Assets at December 31, 2019
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Line item on the balance sheet in which the hedged item is included:

Loans receivable ⁽¹⁾	\$ 19,254	\$ 75
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⁽¹⁾ These amounts include the amortized cost basis of the closed portfolio used to designate the hedging relationship in which the hedged item is the remaining amortized cost of the last layer expected to be remaining at the end of the hedging relationship. At December 31, 2019, the amortized cost of the basis of the closed portfolio used in the hedging relationship was \$19.3 million, the cumulative basis adjustment associated with the hedging relationship was \$75,000, and the amount of the designated hedged item was \$9.2 million.

At December 31, 2019, the fair value of the derivative resulted in a net liability position of \$92,000 under the agreement, recorded by the Company in other liabilities. The Company had no derivative agreements in place at December 31, 2018.

The Company manages its potential credit exposure on interest rate swap transactions by entering into a bilateral credit support agreements with each counterparty. These agreements require collateralization of credit exposures beyond specified minimum threshold amounts. The Company's agreement with its interest rate swap counterparty contains a provision whereby if either party defaults on any of its indebtedness, then that party could also be declared in default on its derivative obligations. The agreement with the Company's derivative counterparty also includes certain other provisions that if not met, could result in the Company or the counterparty being declared in default. If either the Company or the counterparty were to be declared in default, the other party to the agreement can terminate the derivative position and require settlement of all obligations as specifically outlined within the terms of the agreement.

NOTE 22: FAIR VALUE MEASUREMENTS AND DISCLOSURES

Accounting guidance related to fair value measurements and disclosures specifies a hierarchy of valuation techniques based on whether the inputs to those valuation techniques 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 (unadjusted) for identical assets or liabilities in active markets that the entity has the ability to access as of the measurement date.

Level 2 – Quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets.

Level 3 – Model-derived valuations in which one or more significant inputs or significant value drivers are unobservable.

An asset's or liability's level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement.

In determining fair value, the Company utilizes valuation techniques that maximize the use of observable inputs, minimize the use of unobservable inputs, to the extent possible, and considers counterparty credit risk in its assessment of fair value.

The Company used the following methods and significant assumptions to estimate fair value:

Investment securities: The fair values of securities available-for-sale are obtained from an independent third party and are based on quoted prices on nationally recognized securities exchanges where available (Level 1). If quoted prices are not available, fair values are measured by utilizing matrix pricing, which is a mathematical technique used widely in the industry to value debt securities without relying exclusively on quoted prices for specific securities but rather by relying on the securities' relationship to other benchmark quoted securities (Level 2). Management made no adjustment to the fair value quotes that were received from the independent third party pricing service. Level 3 securities are assets whose fair value cannot be determined by using observable measures, such as market prices or pricing models. Level 3 assets are typically very illiquid, and fair values can only be calculated using estimates or risk-adjusted value ranges. Management applies known factors, such as currently applicable discount rates, to the valuation of those investments in order to determine fair value at the reporting date.

The Company holds two corporate investment securities with an aggregate amortized historical cost of \$4.8 million and an aggregate fair market value of \$4.9 million as of December 31, 2019. These securities have valuations that are determined using published net asset values (NAV) derived by analyses of the securities' underlying assets. These securities are comprised primarily of broadly-diversified real estate and adjustable-rate senior secured business loans and are traded in secondary markets on an infrequent basis. While these securities are redeemable at least annually through tender offers made by their respective issuers, the liquidation value of the securities may be below their stated NAVs and also subject to restrictions as to the amount of securities that can be redeemed at any single scheduled redemption. The Company anticipates that these securities will be redeemed by their respective issuers on indeterminate future dates as a consequence of the ultimate liquidation strategies employed by the management of these investments.

Interest rate swap derivative: The fair value of the interest rate swap derivative is calculated based on a discounted cash flow model. All future floating cash flows are projected and both floating and fixed cash flows are discounted to the valuation date. The curve utilized for discounting and projecting is built by obtaining publicly available third party market quotes for various swap maturity terms.

Impaired loans: Impaired loans are those loans in which the Company has measured impairment based on the fair value of the loan's collateral or the discounted value of expected future cash flows. Fair value is generally determined based upon market value evaluations by third parties of the properties and/or estimates by management of working capital collateral or discounted cash flows based upon expected proceeds. These appraisals may include up to three approaches to value: the sales comparison approach, the income approach (for income-producing property), and the cost approach. Management modifies the appraised values, if needed, to take into account recent developments in the market or other factors, such as, changes in absorption rates or market conditions from the time of valuation and anticipated sales values considering management's plans for disposition. Such modifications to the appraised values could result in lower valuations of such collateral. Estimated costs to sell are based on current amounts of disposal costs for similar assets. These measurements are classified as Level 3 within the valuation hierarchy. Impaired loans are subject to nonrecurring fair value adjustment upon initial recognition or subsequent impairment. A portion of the allowance for loan losses is allocated to impaired loans if the value of such loans is deemed to be less than the unpaid balance.

Foreclosed real estate: Fair values for foreclosed real estate are initially recorded based on market value evaluations by third parties, less costs to sell ("initial cost basis"). Any write-downs required when the related loan receivable is exchanged for the underlying real

estate collateral at the time of transfer to foreclosed real estate are charged to the allowance for loan losses. Values are derived from appraisals, similar to impaired loans, of underlying collateral or discounted cash flow analysis. Subsequent to foreclosure, valuations are updated periodically and assets are marked to current fair value, not to exceed the initial cost basis. In the determination of fair value subsequent to foreclosure, management also considers other factors or recent developments, such as, changes in absorption rates and market conditions from the time of valuation and anticipated sales values considering management's plans for disposition. Either change could result in adjustment to lower the property value estimates indicated in the appraisals. These measurements are classified as Level 3 within the fair value hierarchy.

The following tables summarize assets measured at fair value on a recurring basis as of December 31, segregated by the level of valuation inputs within the hierarchy utilized to measure fair value:

<i>(In thousands)</i>	December 31, 2019			Total Fair Value
	Level 1	Level 2	Level 3	
Available-for-Sale Portfolio				
Debt investment securities:				
US Treasury, agencies and GSEs	\$ -	\$ 16,820	\$ -	\$ 16,820
State and political subdivisions	-	1,736	-	1,736
Corporate	-	7,631	-	7,631
Asset backed securities	-	13,232	-	13,232
Residential mortgage-backed - US agency	-	18,980	-	18,980
Collateralized mortgage obligations - US agency	-	30,785	-	30,785
Collateralized mortgage obligations - Private label	-	16,821	-	16,821
Total	-	106,005	-	106,005
Corporate measured at NAV	-	-	-	4,923
Total available-for-sale securities	\$ -	\$ 106,005	\$ -	\$ 110,928
Marketable equity securities	\$ -	\$ 534	\$ -	\$ 534
Interest rate swap derivative	\$ -	\$ (92)	\$ -	\$ (92)

<i>(In thousands)</i>	December 31, 2018			Total Fair Value
	Level 1	Level 2	Level 3	
Available-for-Sale Portfolio				
Debt investment securities:				
US Treasury, agencies and GSEs	\$ -	\$ 17,031	\$ -	\$ 17,031
State and political subdivisions	-	23,065	-	23,065
Corporate	-	12,141	-	12,141
Asset backed securities	-	18,119	-	18,119
Residential mortgage-backed - US agency	-	31,666	-	31,666
Collateralized mortgage obligations - US agency	-	46,441	-	46,441
Collateralized mortgage obligations - Private label	-	23,936	-	23,936
Total	-	172,399	-	172,399
Corporate measured at NAV	-	-	-	5,059
Total available-for-sale securities	\$ -	\$ 172,399	\$ -	\$ 177,458
Marketable equity securities	\$ -	\$ 453	\$ -	\$ 453

The following tables summarize assets measured at fair value on a nonrecurring basis as of December 31, segregated by the level of valuation inputs within the hierarchy utilized to measure fair value:

		December 31, 2019			Total Fair Value
(In thousands)		Level 1	Level 2	Level 3	
Impaired loans	\$	-	\$ -	\$ 3,105	\$ 3,105
Foreclosed real estate	\$	-	\$ -	\$ -	\$ -

		December 31, 2018			Total Fair Value
(In thousands)		Level 1	Level 2	Level 3	
Impaired loans	\$	-	\$ -	\$ 1,098	\$ 1,098
Foreclosed real estate	\$	-	\$ -	\$ 1,173	\$ 1,173

The following table presents additional quantitative information about assets measured at fair value on a nonrecurring basis and for which Level 3 inputs were used to determine fair value.

Quantitative Information about Level 3 Fair Value Measurements			
	Valuation Techniques	Unobservable Input	Range (Weighted Avg.)
At December 31, 2019			
Impaired loans	Appraisal of collateral (Sales Approach)	Appraisal Adjustments	5% - 20% (9%)
	Discounted Cash Flow	Costs to Sell	7% - 13% (11%)
Foreclosed real estate	Appraisal of collateral (Sales Approach)	Appraisal Adjustments	15% - 15% (15%)
		Costs to Sell	6% - 9% (8%)

Quantitative Information about Level 3 Fair Value Measurements			
	Valuation Techniques	Unobservable Input	Range (Weighted Avg.)
At December 31, 2018			
Impaired loans	Appraisal of collateral (Sales Approach)	Appraisal Adjustments	5% - 15% (6%)
	Discounted Cash Flow	Costs to Sell	5% - 13% (11%)
Foreclosed real estate	Appraisal of collateral (Sales Approach)	Appraisal Adjustments	15% - 15% (15%)
		Costs to Sell	6% - 8% (7%)

There have been no transfer of assets into or out of any fair value measurement during the year ended December 31, 2019.

Required disclosures include fair value information of financial instruments, whether or not recognized in the consolidated statement of condition, for which it is practicable to estimate that value. In cases where quoted market prices are not available, fair values are based on estimates using present value or other valuation techniques. Those techniques are significantly affected by the assumptions used, including the discount rate and estimates of future cash flows. In that regard, the derived fair value estimates cannot be substantiated by comparison to independent markets and, in many cases, could not be realized in immediate settlement of the instrument.

The Company has various processes and controls in place to ensure that fair value is reasonably estimated. The Company performs due diligence procedures over third-party pricing service providers in order to support their use in the valuation process.

While the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

Management uses its best judgment in estimating the fair value of the Company's financial instruments; however, there are inherent weaknesses in any estimation technique. Therefore, for substantially all financial instruments, the fair value estimates herein are not necessarily indicative of the amounts the Company could have realized in a sales transaction on the dates indicated. The estimated fair

value amounts have been measured as of their respective period-ends, and have not been re-evaluated or updated for purposes of these financial statements subsequent to those respective dates. As such, the estimated fair values of these financial instruments subsequent to the respective reporting dates may be different than the amounts reported at each period-end.

FASB ASC Topic 820 for Fair Value Measurements and Disclosures, the financial assets and liabilities were valued at a price that represents the Company's exit price or the price at which these instruments would be sold or transferred.

The following information should not be interpreted as an estimate of the fair value of the entire Company since a fair value calculation is only provided for a limited portion of the Company's assets and liabilities. Due to a wide range of valuation techniques and the degree of subjectivity used in making the estimates, comparisons between the Company's disclosures and those of other companies may not be meaningful. The Company, in estimating its fair value disclosures for financial instruments, used the following methods and assumptions:

Cash and cash equivalents – The carrying amounts of these assets approximate their fair value and are classified as Level 1.

Interest earning time deposits – The carrying amounts of these assets approximate their fair value and are classified as Level 1.

Investment securities – The fair values of securities available-for-sale and held-to-maturity are obtained from an independent third party and are based on quoted prices on nationally recognized exchange where available (Level 1). If quoted prices are not available, fair values are measured by utilizing matrix pricing, which is a mathematical technique used widely in the industry to value debt securities without relying exclusively on quoted prices for specific securities, but rather by relying on the securities' relationship to other benchmark quoted securities (Level 2). Management made no adjustment to the fair value quotes that were received from the independent third party pricing service. Level 3 securities are assets whose fair value cannot be determined by using observable measures, such as market prices or pricing models. Level 3 assets are typically very illiquid, and fair values can only be calculated using estimates or risk-adjusted value ranges. Management applies known factors, such as currently applicable discount rates, to the valuation of those investments in order to determine fair value at the reporting date.

The Company holds two corporate investment securities with an aggregate amortized historical cost of \$4.8 million and an aggregate fair market value of \$4.9 million as of December 31, 2019. These securities have valuations that are determined using published net asset values (NAV) derived by analyses of the securities' underlying assets. These securities are comprised primarily of broadly-diversified real estate and adjustable-rate senior secured business loans and are traded in secondary markets on an infrequent basis. While these securities are redeemable at least annually through tender offers made by their respective issuers, the liquidation value of the securities may be below their stated NAVs and also subject to restrictions as to the amount of securities that can be redeemed at any single scheduled redemption. The Company anticipates that these securities will be redeemed by their respective issuers on indeterminate future dates as a consequence of the ultimate liquidation strategies employed by the management of these investments.

Federal Home Loan Bank stock – The carrying amount of these assets approximates their fair value and are classified as Level 2.

Net loans – For variable-rate loans that re-price frequently, fair value is based on carrying amounts. The fair value of other loans (for example, fixed-rate commercial real estate loans, mortgage loans, and commercial and industrial loans) is estimated using discounted cash flow analysis, based on interest rates currently being offered in the market for loans with similar terms to borrowers of similar credit quality. Loan value estimates include judgments based on expected prepayment rates. The measurement of the fair value of loans, including impaired loans, is classified within Level 3 of the fair value hierarchy.

Accrued interest receivable and payable – The carrying amount of these assets approximates their fair value and are classified as Level 1.

Deposits – The fair values disclosed for demand deposits (e.g., interest-bearing and noninterest-bearing checking, passbook savings and certain types of money management accounts) are, by definition, equal to the amount payable on demand at the reporting date (i.e., their carrying amounts) and are classified within Level 1 of the fair value hierarchy. Fair values for fixed-rate certificates of deposit are estimated using a discounted cash flow calculation that applies interest rates currently being offered in the market on certificates of deposits to a schedule of aggregated expected monthly maturities on time deposits. Measurements of the fair value of time deposits are classified within Level 2 of the fair value hierarchy.

Borrowings – Fixed/variable term "bullet" structures are valued using a replacement cost of funds approach. These borrowings are discounted to the FHLB advance curve. Option structured borrowings' fair values are determined by the FHLB for borrowings that include a call or conversion option. If market pricing is not available from this source, current market indications from the FHLB are obtained and the borrowings are discounted to the FHLB advance curve less an appropriate spread to adjust for the option. These measurements are classified as Level 2 within the fair value hierarchy.

Subordinated loans – The Company secures quotes from its pricing service based on a discounted cash flow methodology or utilizes observations of recent highly-similar transactions which result in a Level 2 classification.

Interest rate swap derivative: The fair value of the interest rate swap derivative is calculated based on a discounted cash flow model. All future floating cash flows are projected and both floating and fixed cash flows are discounted to the valuation date. The curve utilized for discounting and projecting is built by obtaining publicly available third party market quotes for various swap maturity terms.

The carrying amounts and fair values of the Company's financial instruments as of December 31 are presented in the following table:

	Fair Value Hierarchy	December 31, 2019		December 31, 2018	
		Carrying Amounts	Estimated Fair Values	Carrying Amounts	Estimated Fair Values
<i>(In thousands)</i>					
Financial assets:					
Cash and cash equivalents	1	\$ 20,160	\$ 20,160	\$ 26,316	\$ 26,316
Investment securities - available-for-sale	2	106,005	106,005	172,399	172,399
Investment securities - available-for-sale	NAV	4,923	4,923	5,059	5,059
Investment securities - marketable equity	2	534	534	453	453
Investment securities - held-to-maturity	2	122,988	124,148	53,908	53,769
Federal Home Loan Bank stock	2	4,834	4,834	5,937	5,937
Net loans	3	772,782	767,654	612,964	601,789
Accrued interest receivable	1	3,712	3,712	3,068	3,068
Financial liabilities:					
Demand Deposits, Savings, NOW and MMDA	1	\$ 460,293	\$ 460,293	\$ 450,267	\$ 450,267
Time Deposits	2	421,600	422,409	276,793	275,727
Borrowings	2	93,125	93,643	118,534	118,379
Subordinated loans	2	15,128	14,921	15,094	14,485
Accrued interest payable	2	396	396	304	304
Interest rate swap derivative	2	92	92	-	-

NOTE 23: PARENT COMPANY – FINANCIAL INFORMATION

The following represents the condensed financial information of Pathfinder Bancorp, Inc. as of and for the years ended December 31:

Statements of Condition	2019	2018
<i>(In thousands)</i>		
Assets		
Cash	\$ 14,514	\$ 3,063
Investments	534	453
Investment in bank subsidiary	88,372	74,769
Investment in non-bank subsidiary	155	193
Other assets	3,193	1,961
Total assets	\$ 106,768	\$ 80,439
Liabilities and Shareholders' Equity		
Accrued liabilities	\$ 971	\$ 886
Subordinated loans	15,128	15,094
Shareholders' equity	90,669	64,459
Total liabilities and shareholders' equity	\$ 106,768	\$ 80,439

Statements of Income	2019	2018
<i>(In thousands)</i>		
Income		
Dividends from non-bank subsidiary	\$ 6	\$ 6
Gains (losses) on marketable equity securities	81	(62)
Operating, net	79	-
Total income (loss)	166	(56)
Expenses		
Interest	863	846
Operating, net	337	175
Total expenses	1,200	1,021
Loss before taxes and equity in undistributed net income of subsidiaries	(1,034)	(1,077)
Tax benefit	235	340
Loss before equity in undistributed net income of subsidiaries	(799)	(737)
Equity in undistributed net income of subsidiaries	5,075	4,768
Net income	\$ 4,276	\$ 4,031

Statements of Cash Flows	2019	2018
<i>(In thousands)</i>		
Operating Activities		
Net Income	\$ 4,276	\$ 4,031
Equity in undistributed net income of subsidiaries	(5,075)	(4,768)
Stock based compensation and ESOP expense	630	773
Amortization of deferred financing from subordinated loan	34	35
Net change in other assets and liabilities	(1,256)	(1,372)
Net cash flows from operating activities	(1,391)	(1,301)
Investing Activities		
Capital contributed to wholly-owned bank subsidiary	(5,700)	-
Net cash flows from investing activities	(5,700)	-
Financing activities		
Proceeds from exercise of stock options	218	385
Net proceeds from common stock private placement	4,199	-
Net proceeds from preferred stock private placement	15,370	-
Cash dividends paid to common shareholders	(1,091)	(1,025)
Cash dividends paid to preferred shareholders	(139)	-
Cash dividends paid on warrants	(15)	-
Net cash flows from financing activities	18,542	(640)
Change in cash and cash equivalents	11,451	(1,941)
Cash and cash equivalents at beginning of year	3,063	5,004
Cash and cash equivalents at end of year	\$ 14,514	\$ 3,063

NOTE 24: RELATED PARTY TRANSACTIONS

In the ordinary course of business, the Company has granted loans to certain directors, executive officers and their affiliates (collectively referred to as “related parties”). These loans were made on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other unaffiliated parties and do not involve more than normal risk of collectability.

The following represents the activity associated with loans to related parties during the year ended December 31, 2019:

(In thousands)

Balance at the beginning of the year	\$	10,512
Originations and Officer additions		1,685
Principal payments and Officer removals		(3,425)
Balance at the end of the year	\$	8,772

Deposits of related parties at December 31, 2019 and December 31, 2018 were \$4.5 million and \$3.9 million, respectively.

NOTE 25: CONVERSION AND REORGANIZATION

On October 16, 2014, the former Pathfinder Bancorp (“former Pathfinder”) completed the conversion and reorganization pursuant to which Pathfinder Bancorp, MHC converted to the stock holding company form of organization under a “second step” conversion (the “Conversion”), and the Bank reorganized from the two-tier mutual holding company structure to the stock holding company structure. Prior to the completion of the Conversion, the MHC owned approximately 60.4% of the common stock of the Company. The Company, the new stock holding company for Pathfinder Bank, sold 2,636,053 shares of common stock at \$10.00 per share, for gross offering proceeds of \$26.4 million in its stock offering. In addition, \$197,000 in cash was received by the Company from the MHC upon it ceasing to exist.

Concurrent with the completion of the offering, shares of common stock of the Company owned by the public were exchanged for shares of the Company’s common stock so that the shareholders now own approximately the same percentage of the Company’s common stock as they owned of the former Pathfinder’s common stock immediately prior to the Conversion. Shareholders of the former Pathfinder received 1.6472 shares of the Company’s common stock for each share of the former Pathfinder’s common stock that they owned immediately prior to completion of the transaction. As a result of the offering and the exchange of shares, the Company had 4,353,850 shares outstanding at December 31, 2014. The Company has 4,362,328 and 4,709,238 shares outstanding at December 31, 2018 and December 31, 2019, respectively.

The Conversion was accounted for as a change in corporate form with no resulting change in the historical basis of the Company’s assets, liabilities, and equity. Costs related to the offering were primarily marketing fees paid to the Company’s investment banking firm, legal and professional fees, registration fees, printing and mailing costs and totaled \$1.5 million. Accordingly, net proceeds were \$24.9 million. In addition, as part of the Conversion and dissolution of the MHC, the Company received \$197,000 of cash previously held by the MHC. As a result of the Conversion and Offering, Pathfinder Bancorp, Inc., a federal corporation, was succeeded by a new fully public Maryland corporation with the same name and the MHC ceased to exist.

The shares of common stock sold in the offering and issued began trading on the NASDAQ Capital Market on October 17, 2014 under the trading symbol “PBHC.”

In accordance with Board of Governors of the Federal Reserve System regulations, at the time of the reorganization, the Company substantially restricted retained earnings by establishing a liquidation account. The liquidation account will be maintained for the benefit of eligible account holders who continue to maintain their accounts at the Bank after conversion. The Bank will establish a parallel liquidation account to support the Company’s liquidation account in the event the Company does not have sufficient assets to fund its obligations under its liquidation account. The liquidation accounts will be reduced annually to the extent that eligible account holders have reduced their qualifying deposits. Subsequent increases will not restore an eligible account holder’s interest in the liquidation accounts. In the event of a complete liquidation of the Bank or the Company, each account holder will be entitled to receive a distribution in an amount proportionate to the adjusted qualifying account balances then held.

The Bank may not pay dividends if those dividends would reduce equity capital below the required liquidation account amount.

NOTE 26: ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

Changes in the components of accumulated other comprehensive income (loss) ("AOCI"), net of tax, for the periods indicated are summarized in the table below.

<i>(In thousands)</i>	For the years ended December 31, 2019			
	Retirement Plans	Unrealized Gains and Losses on Available-for-Sale Securities	Unrealized Loss on Securities Transferred to Held-to-Maturity	Total
Beginning balance	\$ (3,152)	\$ (2,832)	\$ (58)	\$ (6,042)
Other comprehensive income before reclassifications	188	2,859	20	3,067
Amounts reclassified from AOCI	247	(243)	-	4
Ending balance	\$ (2,717)	\$ (216)	\$ (38)	\$ (2,971)

<i>(In thousands)</i>	For the years ended December 31, 2018			
	Retirement Plans	Unrealized Gains and Losses on Available-for-Sale Securities	Unrealized Loss on Securities Transferred to Held-to-Maturity	Total
Beginning balance	\$ (2,220)	\$ (1,558)	\$ (430)	\$ (4,208)
Other comprehensive income before reclassifications	(1,058)	(1,471)	129	(2,400)
Amounts reclassified from AOCI	126	134	-	260
Cumulative effect of change in measurement of equity securities ⁽¹⁾	-	(53)	-	(53)
Cumulative effect of change in investment securities transfer ⁽²⁾	-	116	243	359
Ending balance	\$ (3,152)	\$ (2,832)	\$ (58)	\$ (6,042)

⁽¹⁾ Cumulative effect of unrealized gain on marketable equity securities based on the adoption of ASU 2016-01 - Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Liabilities.

⁽²⁾ Cumulative effect of unrealized gains on the transfer of 52 investment securities from held-to-maturity classification to available-for-sale classification based on the adoption of ASU 2017-12: Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities.

The following table presents the amounts reclassified out of each component of AOCI for the indicated annual period:

<i>(In thousands)</i>	For the years ended		Affected Line Item in the Statement of Income
	December 31, 2019	December 31, 2018	
<u>Details about AOCI¹ components</u>			
<u>Retirement plan items</u>			
Retirement plan net losses recognized in plan expenses ²	\$ (335)	\$ (171)	Salaries and employee benefits
	88	45	Provision for income taxes
	\$ (247)	\$ (126)	Net Income
<u>Available-for-sale securities</u>			
Realized gain (loss) on sale of securities	\$ 329	\$ (182)	Net gains on sales and redemptions of investment securities
	(86)	48	Provision for income taxes
	\$ 243	\$ (134)	Net Income

⁽¹⁾ Amounts in parentheses indicates debits in net income.

⁽²⁾ These items are included in net periodic pension cost. See Note 14 for additional information.

NOTE 27: NONINTEREST INCOME

The Company has included the following table regarding the Company's noninterest income for the periods presented.

<i>(In thousands)</i>	Years Ended December 31,	
	2019	2018
Service fees		
Insufficient funds fees	\$ 1,122	\$ 852
Deposit related fees	179	202
ATM fees	90	94
Total service fees	1,391	1,148
Fee Income		
Insurance commissions	828	831
Investment services revenue	267	288
ATM fees surcharge	226	232
Banking house rents collected	195	134
Total fee income	1,516	1,485
Card income		
Debit card interchange fees	657	576
Merchant card fees	80	72
Total card income	737	648
Mortgage fee income and realized gain on sale of loans and foreclosed real estate		
Loan servicing fees	211	170
Net gains on sales of loans and foreclosed real estate	64	50
Total mortgage fee income and realized gain on sale of loans and foreclosed real estate	275	220
Total	3,919	3,501
Earnings and gain on bank owned life insurance	462	427
Net gains (losses) on sales and redemptions of investment securities	329	(182)
Gains (losses) on marketable equity securities	81	(62)
Other miscellaneous income	126	151
Total noninterest income	\$ 4,917	\$ 3,835

The following is a discussion of key revenues within the scope of the new revenue guidance:

- *Service fees* – Revenue is earned through insufficient funds fees, customer initiated activities or passage of time for deposit related fees, and ATM service fees. Transaction-based fees are recognized at the time the transaction is executed, which is the same time the Company's performance obligation is satisfied. Account maintenance fees are earned over the course of the month as the monthly maintenance performance obligation to the customer is satisfied.
- *Fee income* – Revenue is earned through commissions on insurance and securities sales, ATM surcharge fees, and banking house rents collected. The Company earns investment advisory fee income by providing investment management services to customers under investment management contracts. As the direction of investment management accounts is provided over time, the performance obligation to investment management customers is satisfied over time, and therefore, revenue is recognized over time.
- *Card income* – Card income consists of interchange fees from consumer debit card networks and other related services. Interchange rates are set by the card networks. Interchange fees are based on purchase volumes and other factors and are recognized as transactions occur.
- *Mortgage fee income and realized gain on sale of loans and foreclosed real estate* – Revenue from mortgage fee income and realized gain on sale of loans and foreclosed real estate is earned through the origination of residential and commercial mortgage loans, sales of one-to-four family residential mortgage loans, sales of government guarantees portions of SBA loans, and sales of foreclosed real estate, and is earned as the transaction occurs.

NOTE 28: LEASES

The Company has operating and finance leases for certain banking offices and land under noncancelable agreements. Our leases have remaining lease terms that vary from less than one year up to 31 years, some of which include options to extend the leases for various renewal periods. All options to renew are included in the current lease term when we believe it is reasonably certain that the renewal options will be exercised.

The Company elected to adopt the transition relief under Topic 842, Leases, using the modified retrospective transition method. The periods presented prior to January 1, 2019 continue to be in accordance with ASC 840.

The components of lease expense are as follows:

<i>(In thousands)</i>	For the years ended December 31, 2019
Operating lease cost	\$ 240
Finance lease cost	\$ 51

Supplemental cash flow information related to leases was as follows:

<i>(In thousands)</i>	For the years ended December 31, 2019
Cash paid for amount included in the measurement of lease liabilities:	
Operating cash flows from operating leases	\$ 215
Operating cash flows from finance leases	\$ 51
Financing cash flows from finance leases	\$ 46

Supplemental balance sheet information related to leases was as follows:

<i>(In thousands, except lease term and discount rate)</i>	December 31, 2019
Operating Leases:	
Operating lease right-of-use assets	\$ 2,386
Operating lease liabilities	\$ 2,650
Finance Leases:	
Financial Liability	\$ 578
Weighted Average Remaining Lease Term:	
Operating Leases	19.58 years
Finance Leases	29.42 years
Weighted Average Discount Rate:	
Operating Leases	3.71%
Finance Leases	13.75%

Maturities of lease liabilities were as follows:

Years Ending December 31,	
<i>(In thousands)</i>	
2020	\$ 116
2021	99
2022	99
2023	110
2024	118
Thereafter	2,686
Total minimum lease payments	\$ 3,228

The Company owns certain properties that it leases to unaffiliated third parties at market rates. Lease rental income was \$195,000 and \$134,000 for the twelve months ended December 31, 2019 and 2018, respectively. All lease agreements are accounted for as operating leases. The Company has no unamortized initial direct costs related to the establishment of these lease agreements at January 1, 2019.

NOTE 29: SUBSEQUENT EVENTS

The outbreak of Coronavirus Disease 2019 (“COVID-19”) could adversely impact a broad range of industries in which the Company’s customers operate and impair their ability to fulfill their financial obligations to the Company. The World Health Organization has declared Covid-19 to be a global pandemic indicating that almost all public commerce and related business activities must be, to varying degrees, curtailed with the goal of decreasing the rate of new infections.

The spread of the outbreak will likely cause significant disruptions in the U.S. economy and is highly likely to disrupt banking and other financial activity in the areas in which the Company operates and could also potentially create widespread business continuity issues for the Company. The Company’s business is dependent upon the willingness and ability of its employees and customers to conduct banking and other financial transactions. If the global response to contain COVID-19 escalates or is unsuccessful, the Company could experience a material adverse effect on its business, financial condition, results of operations and cash flows.

The Company’s management routinely evaluates the overall characteristics of its loan portfolio. Such evaluations may include analyses of certain loans for potential sales to unaffiliated third parties. Loan sales may be made in response to a variety of factors such as changes in market conditions or changes in the level of certain loan-type concentrations. Such sales, when executed, would typically be made in order to improve certain characteristics within the overall loan portfolio, viewed individually or in combination, related to factors such as cash flow, liquidity, duration or potential interest rate risk.

On January 28, 2020, the Company completed the sale of 267 residential mortgage loans, on a servicing-retained basis, that were categorized as loans held-for-sale as of December 31, 2019. The loans had been previously held in portfolio from two to five years. The loans were acquired by FNMA in a transaction arranged and managed by an independent third party. The sold loans had an aggregate unpaid principal balance of \$35.7 million and a weighted average coupon of 4.08%. Loan sales of this specific type are executed with the intention of reducing the overall duration of the loan portfolio and the Company’s potential exposure to the effects of rising interest rates as well as to provide liquidity for other lending activities. As a result of the sale, the Company recognized a pre-tax gain of \$370,000 on the sale and capitalized an additional \$289,000 in retained mortgage servicing rights. In total, therefore, pretax revenue was increased by \$659,000 in January 2020 as a result of this transaction. The proceeds of the sale will be used on an interim basis to improve overall balance sheet liquidity by reducing the Company’s aggregate level of borrowed funds and/or brokered certificates of deposit in the remainder of the first quarter of 2020. Ultimately, it is expected that the proceeds of the transaction will be used to fund growth in the Company’s commercial and commercial real estate loan portfolios.

On March 23, 2020, the Company announced that its Board of Directors had declared a cash dividend of \$0.06 per common and preferred share, and a cash dividend of \$0.06 per notional share for the issued common stock Warrant. The dividend will be payable on May 8, 2020 to shareholders of record on April 16, 2020.

ITEM 9: CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A: CONTROLS AND PROCEDURES

REPORT OF MANAGEMENT’S RESPONSIBILITY

The Company’s management, including the Company’s principal executive officer and principal financial officer, have evaluated the effectiveness of the Company’s “disclosure controls and procedures,” as such term is defined in Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended, (the “Exchange Act”). Based upon their evaluation, the principal executive officer and principal financial officer concluded that, as of the end of the period covered by this report, the Company’s disclosure controls and procedures were effective for the purpose of ensuring that the information required to be disclosed in the reports that the Company files or submits under the Exchange Act with the Securities and Exchange Commission (the “SEC”) (1) is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and (2) is accumulated and communicated to the Company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management's report on internal control over financial reporting is contained in "Item 8 – Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

This Annual Report does not include an attestation report of the Company's independent registered public accounting firm regarding internal control over financial reporting pursuant to the rules of the SEC that exempts the Company from such attestation and requires only management's report.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There were no changes in the Company's internal control over financial reporting that occurred during the Company's last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B: OTHER INFORMATION

None.

PART III

ITEM 10: DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

- (a) Information concerning the directors of the Company is incorporated herein by reference to Proposal 1 of the Company's Proxy Statement for the Annual Meeting of Shareholders.
- (b) Information concerning the officers and directors compliance with Section 16(a) of the Securities Exchange Act is incorporated herein by reference to the Company's Proxy Statement for the Annual Meeting of Shareholders under the caption "Delinquent Section 16(a) Reports".
- (c) Information concerning the Company's Code of Ethics is incorporated herein by reference to the Company's Proxy Statement for the Annual Meeting of Shareholders under the caption "Code of Ethics".
- (d) Information concerning the Company's Audit Committee and "financial expert" thereof is incorporated herein by reference to the Company's Proxy Statement for the Annual Meeting of Shareholders under the caption "Audit Committee".
- (e) Set forth below is information concerning the Executive Officers of the Company at December 31, 2019.

Name	Age	Positions Held With the Company
Thomas W. Schneider	58	President and Chief Executive Officer
James A. Dowd, CPA	52	Executive Vice President, Chief Operating Officer
Ronald Tascarella	61	Executive Vice President, Chief Banking Officer
Walter F. Rusnak	66	Senior Vice President, Chief Financial Officer
Daniel R. Phillips	55	Senior Vice President, Chief Information Officer
Calvin L. Corriders	57	Regional President, Syracuse Market

ITEM 11: EXECUTIVE COMPENSATION

- (a) Information with respect to management compensation and transactions required under this item is incorporated by reference hereunder in the Company's Proxy Materials for the Annual Meeting of Shareholders under the caption "Compensation Committee".
- (b) Information concerning director compensation is incorporated herein by reference to the Company's Proxy Statement for the Annual Meeting of Shareholders under the caption "Directors Compensation".

ITEM 12: SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item is incorporated by reference hereunder in the Company's Proxy Materials for the Annual Meeting of Shareholders under the caption "Voting Securities and Principal Holders Thereof."

ITEM 13: CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated by reference hereunder in the Company's Proxy Materials for the Annual Meeting of Shareholders under the captions "Independence and Diversity of Directors" and "Transactions with Certain Related Persons".

ITEM 14: PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is incorporated by reference hereunder in the Company's Proxy Materials for the Annual Meeting of Shareholders under the caption "Audit and Related Fees".

PART IV

ITEM 15: EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

- (a)(1) [Financial Statements - The Company's consolidated financial statements, for the years ended December 31, 2019 and 2018, together with the Report of Independent Registered Public Accounting Firm are filed as part of this Form 10-K report. See "Item 8: Financial Statements and Supplementary Data."](#)
- (a)(2) [Financial Statement Schedules - All financial statement schedules have been omitted as the required information is inapplicable or has been included in "Item 7: Management Discussion and Analysis."](#)
- (b) Exhibits
- 3.1 [Articles of Incorporation of Pathfinder Bancorp, Inc. \(Incorporated herein by reference to Exhibit 3.1 to Pathfinder Bancorp, Inc.'s Registration Statement on Form S-1, file no. 333-196676, originally filed on June 11, 2014\)](#)
- 3.2 [Bylaws of Pathfinder Bancorp, Inc. \(Incorporated herein by reference to Exhibit 3.2 to Pathfinder Bancorp, Inc.'s Registration Statement on Form S-1, file no. 333-196676, filed on June 11, 2014\)](#)
- 3.3 [Articles Supplementary to the Articles of Incorporation of Pathfinder Bancorp, Inc. designating the Company's Series B Convertible Perpetual Preferred Stock, par value \\$0.01 per share \(Incorporated herein by reference to Exhibit 3.1 to Pathfinder Bancorp, Inc.'s Current Report on Form 8-K, file no. 001-36695, filed on May 9, 2019\)](#)
- 4.1 [Form of Stock Certificate of Pathfinder Bancorp, Inc. \(Incorporated herein by reference to Exhibit 4 to Pathfinder Bancorp, Inc.'s Registration Statement on Form S-1, file no. 333-196676, filed on June 11, 2014\)](#)
- 4.2 [Indenture between Pathfinder Bancorp, Inc., a federal corporation, and Wilmington Trust Company, as trustee, dated March 22, 2007 \(Incorporated herein by reference to Exhibit 4.1 to Pathfinder Bancorp, Inc.'s Current Report on Form 8-K, file no. 001-36695, filed on October 22, 2014\)](#)
- 4.3 [Supplemental Indenture between Pathfinder Bancorp, Inc. and Wilmington Trust Company, as trustee, dated October 16, 2014 \(Incorporated herein by reference to Exhibit 4.2 to Pathfinder Bancorp, Inc.'s Current Report on Form 8-K, file no. 001-36695, filed on October 22, 2014\)](#)
- 4.4 [Warrant Agreement, by and between Pathfinder Bancorp, Inc. and Castle Creek Capital Partners VII, L.P., dated May 8, 2019 \(Incorporated herein by reference to Exhibit 4.1 to Pathfinder Bancorp, Inc.'s Current Report on Form 8-K, file no. 001-36695, filed on May 9, 2019\)](#)
- 4.5 [Description of Common Stock filed herewith](#)
- 10.1 [2003 Executive Deferred Compensation Plan \(Incorporated herein by reference to Exhibit 10.3 to the Company's Annual Report on Form 10-K for the year ended December 31, 2008 file no. 000-23601, filed on March 27, 2009\)](#)
- 10.2 [2003 Trustee Deferred Fee Plan \(Incorporated herein by reference to Exhibit 10.4 to the Company's Annual Report on Form 10-K for the year ended December 31, 2008 file no. 000-23601, filed on March 27, 2009\)](#)
- 10.3 [Employment Agreement between Pathfinder Bank and Thomas W. Schneider, President and Chief Executive Officer \(Incorporated by reference to Exhibit 10.5 to Pathfinder Bancorp, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2008, file no. 000-23601, filed on March 27, 2009\)](#)
- 10.4 [Executive Supplemental Retirement Plan Agreement between Pathfinder Bank and Thomas W. Schneider effective February 24, 2014 \(Incorporated by reference to Exhibit 10.13 to Pathfinder Bancorp, Inc.'s Current Report Form 8-K, file no. 000-23601, filed on February 25, 2014\)](#)
- 10.5 [Executive Supplemental Retirement Plan Agreement between Pathfinder Bank and James A. Dowd effective February 24, 2014 \(Incorporated by reference to Exhibit 10.15 to Pathfinder Bancorp, Inc.'s Current Report Form 8-K, file no. 000-23601, filed on February 25, 2014\)](#)
- 10.6 [Amended and Restated Declaration of Trust among Pathfinder Bancorp, Inc., a federal corporation, as Sponsor, Wilmington Trust Company, as Delaware and Institutional Trustee, and the administrative trustees of the Pathfinder Statutory Trust II \(Incorporated herein by reference to Exhibit 10.1 to Pathfinder Bancorp, Inc.'s Current Report on Form 8-K, file no. 001-36695, filed on October 22, 2014\)](#)

- 10.7 [Amendment two to the Trustee Deferral Fee Plan \(Incorporated by reference to Exhibit 10.17 to Pathfinder Bancorp, Inc.'s Annual Report on Form 10-K, file no. 001-36695, filed on March 18, 2015\)](#)
- 10.8 [Amendment one to the Executive Deferral Compensation Plan \(Incorporated by reference to Exhibit 10.18 to Pathfinder Bancorp, Inc.'s Annual Report on Form 10-K, file no. 001-36695, filed on March 18, 2015\)](#)
- 10.9 [Amendment one to the Supplemental Executive Retirement Plan \(Incorporated by reference to Exhibit 10.19 to Pathfinder Bancorp, Inc.'s Annual Report on Form 10-K, file no. 001-36695, filed on March 18, 2015\)](#)
- 10.10 [Subordinated Loan Agreement \(Incorporated herein by reference to Pathfinder Bancorp, Inc.'s Current Report on Form 8-K, file no. 001-36695, filed on October 19, 2015\)](#)
- 10.11 [2016 Pathfinder Bancorp, Inc. Equity Incentive Plan \(Incorporated by reference to Appendix A to Pathfinder Bancorp, Inc.'s Proxy Statement, file no. 001-36695, filed on March 29, 2016.](#)
- 10.12 [Executive Supplemental Retirement Plan Agreement between Pathfinder Bank and Ronald Tascarella effective February 24, 2014 \(Incorporated by reference to Exhibit 10.14 to Pathfinder Bancorp, Inc.'s Annual Report on Form 10-K, file no. 001-36695, filed on March 30, 2018\).](#)
- 10.13 [Senior Executive Split Dollar Life Insurance Plan \(Incorporated by reference to Exhibit 10.1 to Pathfinder Bancorp, Inc.'s Current Report on Form 8-K, filed no. 001-36695, filed on January 7, 2019.](#)
- 10.14 [Change of Control Agreement between Pathfinder Bank and James A. Dowd \(Incorporated by reference to Exhibit 10.2 to Pathfinder Bancorp, Inc.'s Current Report on Form 8-K, filed no. 001-36695, filed on January 7, 2019.](#)
- 10.15 [Change of Control Agreement between Pathfinder Bank and Ronald Tascarella \(Incorporated by reference to Exhibit 10.3 to Pathfinder Bancorp, Inc.'s Current Report on Form 8-K, filed no. 001-36695, filed on January 7, 2019.](#)
- 10.16 [Securities Purchase Agreement, by and between Pathfinder Bancorp, Inc. and the Purchasers Identified on the Signature Pages Thereto, dated May 8, 2019 \(Incorporated herein by reference to Exhibit 10.1 to Pathfinder Bancorp, Inc.'s Current Report on Form 8-K, file no. 001-36695, filed on May 9, 2019\)](#)
- 10.17 [Registration Rights Agreement, by and between Pathfinder Bancorp, Inc. and Castle Creek Capital Partners VII, L.P., dated May 8, 2019 \(Incorporated herein by reference to Exhibit 10.2 to Pathfinder Bancorp, Inc.'s Current Report on Form 8-K, file no. 001-36695, filed on May 9, 2019\)](#)
- 14 [Code of Ethics \(Incorporated by reference to Exhibit 14 to Pathfinder Bancorp, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2003, file no. 000-23601, filed on March 31, 2004\)](#)
- 21 [Subsidiaries of Registrant](#)
- 23 [Consent of Bonadio & Co., LLP](#)
- 31.1 [Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)
- 31.2 [Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)
- 32 [Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)
- 101 Interactive data files pursuant to Rule 405 of Regulation S-T: (i) the Consolidated Statements of Condition as of December 31, 2019 and 2018, (ii) the Consolidated Statements of Income for the years ended December 31, 2019 and 2018, (iii) the Consolidated Statements of Comprehensive Income for the years ended December 31, 2019 and 2018, (iv) the Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2019 and 2018, (v) the Consolidated Statements of Cash Flows for the years ended December 31, 2019 and 2018, and (vi) the Notes to the Consolidated Financial Statements

ITEM 16: FORM 10-K SUMMARY

None.

Signatures

Pursuant to the requirements of Section 13 of the Securities Exchange Act of 1934, the Company has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Pathfinder Bancorp, Inc.

Date: March 23, 2020

By: /s/ Thomas W. Schneider
Thomas W. Schneider
President and Chief Executive Officer

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

By: /s/ Thomas W. Schneider
Thomas W. Schneider, President and
Chief Executive Officer
(Principal Executive Officer)

Date: March 23, 2020

By: /s/ Walter F. Rusnak
Walter F. Rusnak, Senior Vice President and
Chief Financial Officer
(Principal Financial Officer)

Date: March 23, 2020

By: /s/ Lloyd Stemple
Lloyd Stemple, Director

Date: March 23, 2020

By: /s/ Lisa A. Kimball
Lisa A. Kimball, Vice President and
Controller (Principal Accounting Officer)

Date: March 23, 2020

By: /s/ John P. Funicello
John Funicello, Director

Date: March 23, 2020

By: /s/ William A. Barclay
William A. Barclay, Director

Date: March 23, 2020

By: /s/ David A. Ayoub
David A. Ayoub, Director

Date: March 23, 2020

By: /s/ Chris R. Burritt
Chris R. Burritt, Director

Date: March 23, 2020

By: /s/ George P. Joyce
George P. Joyce, Director

Date: March 23, 2020

By: /s/ John F. Sharkey
John F. Sharkey, Director

Date: March 23, 2020

By: /s/ Adam C. Gagas
Adam C. Gagas, Director

Date: March 23, 2020

By: /s/ Melanie Littlejohn
Melanie Littlejohn, Director

Date: March 23, 2020

EXHIBIT 4.5: DESCRIPTION OF COMMON STOCK

Description of Common Stock

As of December 31, 2019, the common stock of Pathfinder Bancorp, Inc. (the “Company”) is registered under Section 12(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

The following description of our common stock, certain provisions of our articles of incorporation and bylaws and certain provisions of Maryland law is a summary and is qualified in its entirety by reference to our articles of incorporation, bylaws and the Maryland General Corporation Law, (the “MGCL”). Copies of our articles of incorporation and our bylaws have been filed with the Securities and Exchange Commission (the “SEC”) and are filed as exhibits to the Company’s Annual Report on Form 10-K filed with the SEC of which this Exhibit is a part.

General

The Company is authorized to issue 25,000,000 shares of common stock, par value of \$0.01 per share, and 10,000,000 shares of preferred stock, par value \$0.01 per share. As of December 31, 2019, we had 4,709,238 shares of common stock outstanding. Our articles of incorporation permit our board of directors, without action by the stockholders, to amend the articles of incorporation to increase or decrease the aggregate number of shares of common stock. Our common stock is listed on the Nasdaq Capital Market under the symbol “PBHC.”

Common Stock

Dividends. The Company may pay dividends in an amount equal to the excess of our capital surplus over payments that would be owed upon dissolution to stockholders whose preferential rights upon dissolution are superior to those receiving the dividend, and in an amount that would not make us insolvent, as and when declared by our board of directors. The payment of dividends by the Company is also subject to limitations that are imposed by law and applicable regulation, including restrictions on payments of dividends that would reduce the Company’s assets below the then-adjusted balance of its liquidation account. The holders of common stock of the Company will be entitled to receive and share equally in dividends as may be declared by our board of directors out of funds legally available therefor. Shares of the Company’s preferred stock in the future may have a priority over the holders of the Company’s common stock with respect to dividends.

Voting Rights. The holders of common stock of the Company currently have exclusive voting rights in the Company. Generally, each holder of common stock is entitled to one vote per share and does not have any right to cumulate votes in the election of directors. Any person who beneficially owns more than 10% of the then-outstanding shares of the Company’s common stock, however, is not entitled or permitted to vote any shares of common stock held in excess of the 10% limit unless approved by the board of directors. Holders of preferred stock may also possess certain voting rights. Certain matters require the approval of 80% of our outstanding common stock.

Liquidation. In the event of liquidation, dissolution or winding up of the Company, the holders of its common stock would be entitled to receive, after payment or provision for payment of all its debts and liabilities (including payments with respect to its liquidation account), all of the assets of the Company available for distribution. If additional preferred stock is issued, the holders thereof may have a priority over the holders of the common stock in the event of liquidation or dissolution.

Preemptive Rights. Holders of the common stock of the Company are not be entitled to preemptive rights with respect to any shares that may be issued.

Other. Holders of the common stock of the Company have no conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to our common stock.

Preferred Stock

The Company entered into a Securities Purchase Agreement (the “Securities Purchase Agreement”) with Castle Creek Capital Partners VII, L.P. (“Castle Creek”), pursuant to which the Company sold: (i) 37,700 shares of the Company’s common stock; (ii) 1,155,283 shares of a new series of preferred stock, Series B convertible perpetual preferred stock, par value \$0.01 per share (the “Series B Preferred Stock”); and (iii) a warrant to purchase 125,000 shares of common stock at an exercise price equal to \$14.25 per share (the “Warrant”), in a private placement (the “Private Placement”).

Each share of Series B Preferred Stock will be convertible on a one for one basis into either (i) common stock under certain circumstances or (ii) non-voting common stock, par value \$0.01 per share (which will also be convertible into common

stock), subject to approval of the creation of such class of non-voting common stock by the Company's stockholders. Pursuant to Nasdaq rules, Castle Creek may not convert the Series B Preferred Stock or, in the future the non-voting common stock into common stock, or exercise the Warrant if doing so would cause Castle Creek when combined with the purchases of certain directors and executive officers of the Company as well as other accredited investors in the Private Placement to own more than 19.99% of the common stock outstanding immediately prior to the execution of the Securities Purchase Agreement (the "Exchange Cap"). The Company must request stockholder approval to eliminate the Exchange Cap no later than at the 2021 annual meeting of Company stockholders. In addition, Castle Creek will need the approval or non-objection of the Board of Governors of the Federal Reserve System and the New York Department of Financial Services if it seeks to increase its ownership of shares of common stock in excess of 9.9% of the outstanding shares of common stock. Following the Private Placement, Castle Creek owned 9.9% of the Company's common stock.

Certain Anti-Takeover Provisions

Maryland law, as well as the Company's articles of incorporation and bylaws, contain a number of provisions relating to corporate governance and rights of stockholders that may discourage future takeover attempts. As a result, stockholders who might desire to participate in such transactions may not have an opportunity to do so. In addition, these provisions will also render the removal of the board of directors or management of the Company more difficult.

Directors. The board of directors is divided into three classes. The members of each class are elected for a term of three years and only one class of directors is elected annually. Thus, it takes at least two annual elections to replace a majority of the board of directors. The bylaws establish qualifications for board members, including restrictions on affiliations with competitors of Pathfinder Bank and restrictions based upon prior legal or regulatory violations. Further, the bylaws impose notice and information requirements in connection with the nomination by stockholders of candidates for election to the board of directors or the proposal by stockholders of business to be acted upon at an annual meeting of stockholders. Such notice and information requirements are applicable to all stockholder business proposals and nominations, and are in addition to any requirements under the federal securities laws.

Restrictions on Call of Special Meetings. The bylaws provide that special meetings of stockholders can be called by the chairman, chief executive officer, by a majority of the total authorized directors or upon the written request of stockholders entitled to cast at least a majority of all votes entitled to vote at the meeting.

Prohibition of Cumulative Voting. The articles of incorporation prohibit cumulative voting for the election of directors.

Limitation of Voting Rights. The articles of incorporation provide that in no event will any person who beneficially owns more than 10% of the then-outstanding shares of common stock, be entitled or permitted to vote any of the shares of common stock held in excess of the 10% limit. This provision has been included in the articles of incorporation in reliance on Section 2-507(a) of the Maryland General Corporation Law, which entitles stockholders to one vote for each share of stock unless the articles of incorporation provide for a greater or lesser number of votes per share or limit or deny voting rights.

Restrictions on Removing Directors from Office. The articles of incorporation provide that directors may be removed only for cause, and only by the affirmative vote of the holders of at least a majority of the voting power of all of our then-outstanding capital stock entitled to vote in the election of directors voting together as a single class.

Authorized but Unissued Shares of Preferred Stock. The articles of incorporation authorize 10,000,000 shares of serial preferred stock. The Company is authorized to issue preferred stock from time to time in one or more series subject to applicable provisions of law, and the board of directors is authorized to fix the designations, and relative preferences, limitations, voting rights, if any, including without limitation, offering rights of such shares (which could be multiple or as a separate class). In the event of a proposed merger, tender offer or other attempt to gain control of the Company that the board of directors does not approve, it may be possible for the board of directors to authorize the issuance of a series of preferred stock with rights and preferences that would impede the completion of the transaction. An effect of the possible issuance of preferred stock therefore may be to deter a future attempt to gain control of the Company.

Amendments to Articles of Incorporation and Bylaws. Amendments to the articles of incorporation must be approved by the board of directors and by the affirmative vote of at least two-thirds of the outstanding shares of capital stock, or by the affirmative vote of a majority of the outstanding shares of common stock if at least two-thirds of the members of the whole board of directors approves such amendment; provided, however, approval by at least 80% of the outstanding voting stock is generally required to amend certain provisions.

The articles of incorporation also provide that the bylaws may be amended by the affirmative vote of a majority of the Company's directors or by the stockholders by the affirmative vote of at least 80% of the total votes eligible to be cast at a duly constituted meeting of stockholders. Any amendment of this super-majority requirement for amendment of the bylaws would also require the approval of 80% of the total votes eligible to be cast.

The provisions requiring the affirmative vote of 80% of the total eligible votes eligible to be cast for certain stockholder actions have been included in the articles of incorporation of the Company in reliance on Section 2-104(b)(4) of the Maryland General Corporation Law.

Business Combinations with Interested Stockholders. Maryland law restricts mergers, consolidations, sales of assets and other business combinations between the Company and an "interested stockholder."

Evaluation of Offers. The articles of incorporation of the Company provide that its board of directors, when evaluating a transaction that would or may involve a change in control of the Company (whether by purchases of its securities, merger, consolidation, share exchange, dissolution, liquidation, sale of all or substantially all of its assets, proxy solicitation or otherwise), may, in connection with the exercise of its business judgment in determining what is in the best interests of the Company and its stockholders and in making any recommendation to the stockholders, give due consideration to all relevant factors, including, but not limited to, certain enumerated factors.

EXHIBIT 21: SUBSIDIARIES OF THE REGISTRANT

<u>Name</u>	<u>State of Incorporation</u>
Pathfinder Bank	New York (direct)
Pathfinder Statutory Trust II	Delaware (direct)
Whispering Oaks Development Corp.	New York (indirect)
Pathfinder Risk Management Company Inc.	New York (indirect)
FitzGibbons Agency, LLC ⁽¹⁾	New York (indirect)

⁽¹⁾ Pathfinder Bancorp, Inc. indirectly owns 51% of FitzGibbons Agency, LLC

The Company has evaluated the activities relating to its strategic business units. The controlling interest in the FitzGibbons Agency is dissimilar in nature and management when compared to the Company's other strategic business units which are judged to be similar in nature and management. The Company has determined that the FitzGibbons Agency is below the reporting threshold in size in accordance with Accounting Standards Codification 280. Accordingly, the Company has determined it has no reportable segments.

EXHIBIT 23: CONSENT OF BONADIO & CO., LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Pathfinder Bancorp, Inc.
Oswego, New York

We hereby consent to the incorporation by reference in this Annual Report on Form 10-K of Pathfinder Bancorp, Inc. and subsidiaries for the year ended December 31, 2019 of our report dated March 23, 2020 included in its Registration Statements on Form S-8 (No. 333-202081) and (No. 333-224388) relating to the consolidated financial statements for the two years ended December 31, 2019.

/s/ Bonadio & Co., LLP

Bonadio & Co., LLP
Pittsford, New York
March 23, 2020

EXHIBIT 31.1: Rule 13a-14(a) / 15d-14(a) Certification of the Chief Executive Officer

Certification of Chief Executive Officer

Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Thomas W. Schneider, President and Chief Executive Officer, certify that:

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

March 23, 2020

/s/ Thomas W. Schneider
Thomas W. Schneider
President and Chief Executive Officer

EXHIBIT 31.2: Rule 13a-14(a) / 15d-14(a) Certification of the Chief Financial Officer

Certification of Chief Financial Officer

Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Walter F. Rusnak, Senior Vice President, Chief Financial Officer, certify that:

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

March 23, 2020

/s/ Walter F. Rusnak
Walter F. Rusnak
Senior Vice President, Chief Financial Officer

EXHIBIT 32 Section 1350 Certification of the Chief Executive and Chief Financial Officers

Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Thomas W. Schneider, President and Chief Executive Officer, and Walter F. Rusnak, Senior Vice President, Chief Financial Officer of Pathfinder Bancorp, Inc. (the "Company"), each certify in his capacity as an officer of the Company that he has reviewed the Annual Report of the Company on Form 10-K for the year ended December 31, 2019 and that to the best of his knowledge:

1. the report fully complies with the requirements of Sections 13(a) of the Securities Exchange Act of 1934; and
2. the information contained in the report fairly presents, in all material respects, the consolidated financial condition and results of operations of the Company.

The purpose of this statement is solely to comply with Title 18, Chapter 63, Section 1350 of the United States Code, as amended by Section 906 of the Sarbanes-Oxley Act of 2002.

March 23, 2020

/s/ Thomas W. Schneider
Thomas W. Schneider
President and Chief Executive Officer

March 23, 2020

/s/ Walter F. Rusnak
Walter F. Rusnak
Senior Vice President, Chief Financial Officer

CORPORATE INFORMATION

PATHFINDER BANCORP, INC.

BOARD OF DIRECTORS (1)

Chris R. Burritt, Chairman
David A. Ayoub, CPA
William A. Barclay
John P. Funicello
Adam Gagas
George P. Joyce
Melanie Littlejohn
Thomas W. Schneider
John F. Sharkey, III
Lloyd "Buddy" Stemple

PATHFINDER EXECUTIVE OFFICERS

Thomas W. Schneider
President, Chief Executive Officer

James A. Dowd, CPA
Executive Vice President, Chief
Operating Officer

Ronald Tascarella
Executive Vice President,
Chief Banking Officer

Calvin L. Corriders
Regional President, Syracuse Market

William O'Brien
Senior Vice President, Chief Risk
Officer, Corporate Secretary

Daniel R. Phillips
Senior Vice President,
Chief Information Officer

Walter F. Rusnak, CPA, CGMA
Senior Vice President, Chief Financial Officer

PATHFINDER OFFICERS

Robert G. Butkowski
First Vice President, Branch Administration

Lisa A. Kimball
First Vice President, Controller

Paloma Sarkar
First Vice President, Enterprise Risk
Management and Strategic Planning

Ronald G. Tascarella
First Vice President, Sales Manager

Beth K. Alfieri
Vice President, Senior Business
Development Officer

William Bowers
Vice President, Business
Development Officer

Heather L. Bush
Vice President, Human Resources

Roberta J. Davis
Vice President, Financial Analyst

Cassandra M. Gehrig
Vice President, Marketing

Shari L. Gordon
Vice President, Information Security Officer

Alison X. Ha
Vice President, Business
Development Officer

Lorna J. Hall
Vice President, Bank Secrecy
and Security Officer

Karri L. Hibbert
Vice President, Facilities Manager

Rhonda L. Hutchins
Vice President, Compliance

Mary S. McConkey
Vice President, Electronic
Commerce Manager

Joseph P. McManus
Vice President, Computer
Operations Manager

April L. Phillips
Vice President, Core Systems/Deposit
Operations Manager

Reyne J. Pierce
Vice President,
Loan Operations Manager

Michael Vaccaro
Vice President, Director of Internal Audit

Theresa L. Colburn
Assistant Vice President,
Compliance Manager

Tonya L. Crisafulli
Assistant Vice President, Executive Assistant

Jessica L. DeGrenier
Assistant Vice President,
Loss Mitigation Manager

Laurie L. Lockwood
Assistant Vice President, Assistant Controller

Crystal L. Rafte
Assistant Vice President, Branch Analyst

Nicholas Tryniski
Assistant Vice President, Manager
Credit Administration

Cindy Vaughn
Assistant Vice President, Manager
Commercial Deposits

Jennifer L. Wright
Assistant Vice President, Business
Development Officer

Sydney F. DiPierro
Banking Officer, Treasury Management

PATHFINDER BRANCH MANAGERS

John M. Andrews, Assistant Vice President
Randall A. Barnard, Assistant Vice President
Susan M. Cahill, Assistant Vice President
David Cavallaro, Assistant Vice President
Angelica Reyes, Assistant Vice President
Ashley Betts, Assistant Vice President
Deana M. Michaels, Assistant Vice President
Craig J. Nessel, Assistant Vice President
Amy J. Shaw, Assistant Vice President

ANNUAL MEETING

As the COVID-19 global health issue continues, and in the context of the national emergency declared by the US Government, the Board of Directors has determined that the Annual Shareholders' Meeting originally scheduled to be held on May 7, 2020, will be postponed to a later date.

STOCK LISTING

The NASDAQ Capital Market
Symbol: PBHC Listing: PathBcp

SPECIAL COUNSEL

Luse Gorman, PC
5335 Wisconsin Avenue N.W.
Suite 400
Washington, D.C. 20015

INDEPENDENT AUDITORS

Bonadio & Co., LLP
432 North Franklin Street, Suite 60
Syracuse, NY 13204

TRANSFER AGENT

Computershare
480 Washington Blvd, 29th Floor
Jersey City, NJ 07310

CORPORATE HEADQUARTERS

214 West First Street
Oswego, NY 13126
(315) 343-0057

INVESTOR RELATIONS

Thomas W. Schneider
President, Chief Executive Officer

Walter F. Rusnak
CPA, CGMA Senior Vice President,
Chief Financial Officer

GENERAL INQUIRIES AND REPORTS

A copy of the Bank's 2019 Annual Report to the Securities and Exchange Commission, Form 10-K, may be obtained without charge by written request of shareholders to:

William O'Brien
Senior Vice President, Chief Risk Officer,
Corporate Secretary
Pathfinder Bank
214 West First Street
Oswego, NY 13126

A copy of this Annual Report on Form 10K and our Form 10-K/A, which reports a condensed version of our Proxy Statement, is also available free of charge on our website at: www.pathfinderbank.com/annualmeeting

The public may read and copy any materials the Company files with the SEC at the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

The Company's filings are also available electronically free of charge at the SEC website: <http://www.sec.gov> and at the Company's website: <http://www.pathfinderbank.com>

FDIC DISCLAIMER

This Annual Report has not been reviewed or confirmed for accuracy or relevance by the FDIC.

(1) Information concerning the principal occupation of the Directors is available in the Company's Proxy Statement

MAIN OFFICE

214 West First Street Oswego
(315) 343-0057

PLAZA OFFICE

State Route 104 East Oswego
(315) 343-4483

DOWNTOWN DRIVE-THRU

34 East Bridge Street Oswego
(315) 343-2577

MEXICO OFFICE

Norman & Main Streets Mexico
(315) 963-7248

FULTON OFFICE

5 West First Street South Fulton
(315) 592-9545

LACONA OFFICE

1897 Harwood Drive Lacona
(315) 387-3437

CENTRAL SQUARE OFFICE

3025 East Avenue Central Square
(315) 676-2265

CICERO OFFICE

6194 State Route 31 Cicero
(315) 752-0033

SYRACUSE OFFICE

109 West Fayette Syracuse
(315) 207- 8020

UTICA LOAN OFFICE

200 Genesee Street Utica
(315) 343-0057

CLAY OFFICE

3775 Route 31
Liverpool, NY 13090
(315) 593-4400

