

Real progress  
means we all grow.





Martin K. Birmingham (President and Chief Executive Officer)  
and Robert N. Latella (Chairman of the Board)



## Corporate Profile

Financial Institutions, Inc. provides diversified financial services through its subsidiaries Five Star Bank, SDN Insurance Agency, Courier Capital, and HNP Capital.

Five Star Bank provides a wide range of consumer and commercial banking and lending services to individuals, municipalities and businesses through a network of more than 50 offices throughout Western and Central New York State. Additional Five Star Bank information is available at [www.five-starbank.com](http://www.five-starbank.com).

SDN Insurance Agency provides a broad range of insurance services to personal and business clients.

Courier Capital and HNP Capital provide customized investment management, investment consulting and retirement plan services to individuals, businesses, institutions, foundations and retirement plans.

Financial Institutions, Inc. and its subsidiaries employ approximately 700 individuals. The Company's stock is listed on the Nasdaq Global Select Market under the symbol FISI. Additional information is available at [www.fiiwarsaw.com](http://www.fiiwarsaw.com).

# Fellow Shareholders

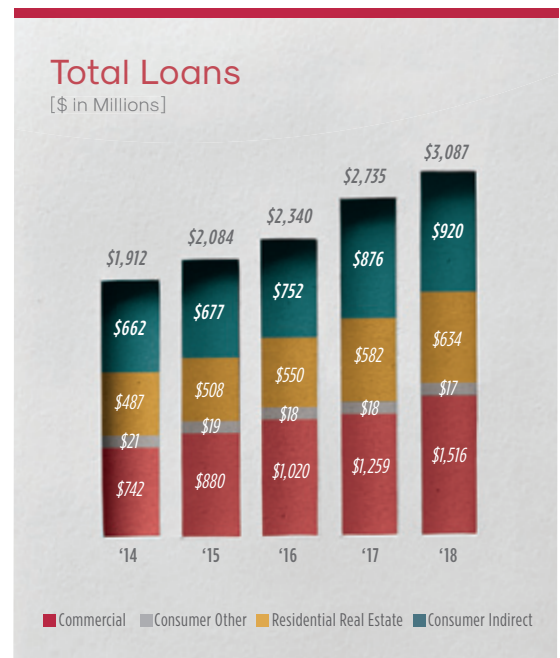
**In 2018 we continued our focus on achieving sustainable earnings growth through the execution of our strategic plan.**

We generated strong financial results, completed the acquisition of a wealth management firm to increase fee-based revenue streams, acquired strategic talent and launched a branding campaign to increase awareness of the Five Star Bank brand and the products and services we offer.

## 2018 Results

Strong loan growth and increased loan yields resulted in the highest full-year net interest income in our company's history of \$123 million, an increase of 9.1% from 2017. Total loans grew by 12.9%, with the highest growth achieved in commercial business loans at 23.9%, commercial mortgage loans at 18.5% and residential real estate loans at 12.7%. The average loan portfolio yield for 2018 was 4.51%, an increase of 29 basis points.

Our ability to deliver loan growth at these levels is attributable to investments made over the past 30 months in experienced lending and credit professionals, combined with our competitively advantaged community bank model grounded in responsive personal service, local leadership and local decision-making. A significant effort has been invested in growing our commercial and residential mortgage businesses because they are relationship-based, enabling us to leverage meaningful opportunities to incorporate banking, insurance and investment solutions for our borrowers.



# 2018 Financial Highlights

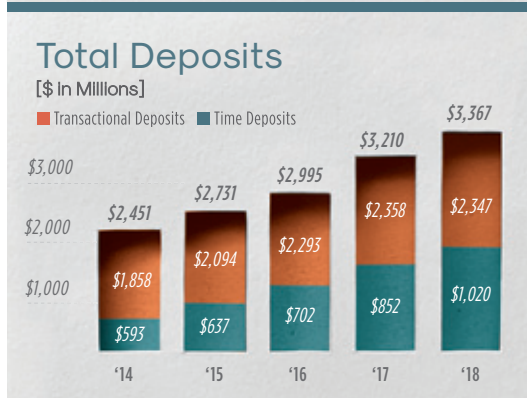
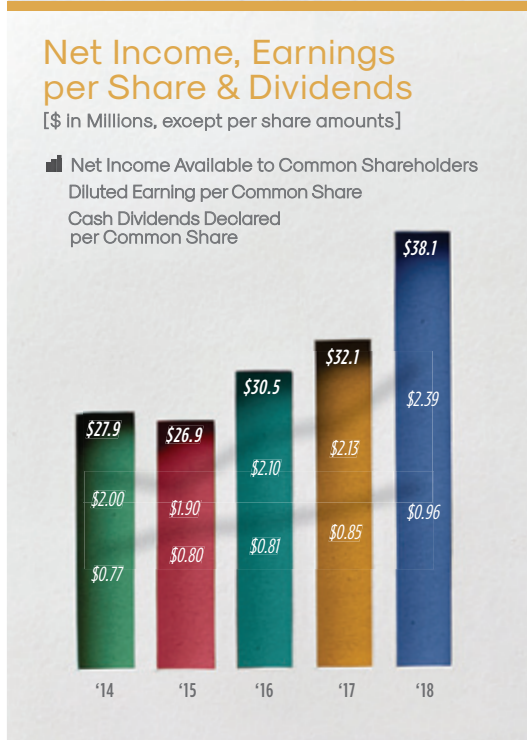
Consumer indirect lending continues to be a profitable business for us and a core competency. Our focus on loans more likely to lead to full relationships resulted in lower growth in this category in 2018. The consumer indirect loan portfolio at December 31, 2018 represented 29.8% of our total loan portfolio, down from 32.0% at year-end 2017 and a peak of 35% in 2013.

We have not and will not lose sight of the importance of credit discipline and the management of risk as the size of our loan portfolio increases. We have invested in credit and risk personnel while supporting what we believe is an effective and efficient risk and control environment. In 2018, substantial progress was made to incorporate our enterprise risk management and compliance management programs in the management and governance routines of the company.

We believe asset quality remains sound. Provision for loan losses was \$4 million lower than the prior year, reflecting improved credit performance of our loan portfolios. At year-end 2018, the ratio of non-performing loans to total loans was 23 basis points, the lowest quarterly level experienced over the past ten years. Net charge-offs to average loans for the year of 33 basis points was five basis points below the ten-year average.

Reflecting the positive impact of the execution of strategic initiatives and related investments, noninterest income was \$36.5 million, \$1.7 million higher than 2017. Primary drivers of growth were higher investment advisory fees, income from limited partnership investments and fees associated with interest rate swaps utilized by our commercial borrowers.

We experienced noninterest expense growth in 2018 with expenses \$10



million higher than the prior year. The increase was driven by increased headcount focused on revenue growth, the acquisition of a wealth management subsidiary, higher advertising and promotion expense in connection with our Five Star Bank brand campaign, and incremental compensation to employees not covered by existing incentive programs.

Net income for 2018 was \$39.5 million, \$6 million higher than 2017. After preferred dividends, net income available to common shareholders was \$38.1 million. Diluted earnings per share of \$2.39 represented a 12.2% increase compared to \$2.13 in 2017.

Total deposits grew \$157 million in 2018 to \$3.4 billion as a result of business development efforts, including the gathering of deposits from new loan customers.

Common book value per share increased from \$22.85 to \$23.79, or \$0.94 per share, during the year and tangible common book value per share\* increased for the 10th consecutive year from \$18.16 to \$19.01, or \$0.85 per share.

#### Dividends

Cash dividends declared to shareholders in 2018 totaled \$0.96 per share, an increase of 12.9% from 2017. In February 2019, the company's board of directors increased the quarterly dividend to common shareholders by 4.2% to \$0.25 per share per quarter, or \$1.00 per share on an annualized basis. This increase reflects our confidence in the company's performance and outlook as well as our commitment to increasing shareholder value.

## Total Investment Securities

Repositioning Our Balance Sheet by Deploying Securities Into Loans  
[\$ in Millions]

\$917	\$1,030	\$1,083	\$1,041	\$892
'14	'15	'16	'17	'18

## Common Book Value & Tangible Common Book Value\*

[per share]

Common Book Value  
Tangible Common Book Value\*



### Repositioning Our Balance Sheet

In 2018, we launched an initiative to convert a portion of low-yield, low-risk weighted marketable securities into higher-yielding loans. This is being accomplished by funding a portion of loan portfolio growth with maturities, sales and payments from the investment securities portfolio. During 2018, we funded approximately \$143 million of new loans with proceeds from securities. The average yield of the securities portfolio at year-end was 2.33%, 218 basis points lower than the yield on our loan portfolio.

Despite the challenging interest rate environment, we were able to maintain a relatively stable net interest margin ("NIM") in 2018, at 3.18% for the year compared to 3.21% in 2017. NIM stability can be attributed to an improvement in interest-earning asset mix, including the impact of funding loans with proceeds from the securities portfolio and effective management of funding costs

### Growing Our Wealth Management Platform

On June 1, 2018, the company acquired HNP Capital, an SEC-registered investment advisory, wealth management and family office services firm based in Rochester. HNP Capital offers investment management, retirement plan services, alternative investments, financial planning and family office services to more than 250 clients.

This acquisition demonstrates an ongoing commitment to our long-term strategy of growing noninterest income. It also filled an existing geographic gap in our wealth management business by providing coverage of Rochester and the eastern side of the market. Our Courier Capital subsidiary provides strong coverage of Buffalo and the western portion of the market.

HNP Capital's principals remain with the firm and manage their portfolios, which totaled approximately \$344 million at the time of the acquisition.

### Investments in People

Prior to 2017, we had an undersized residential mortgage lending team and smaller-than-peer portfolio. In 2017, we hired eight mortgage loan officers and the back-office support personnel necessary to underwrite and process their production. We extended this momentum in 2018 with the addition of six mortgage loan officers. We continue to believe that this is the right time

to expand our residential mortgage lending capabilities, capitalizing on market opportunities that ultimately lead to growth in full relationships with new customers and higher interest income and fees related to the servicing and sale of loans.

In September we hired a Commercial Market Executive ("CME") for the Central New York region to build commercial relationships, grow Five Star Bank's commercial loan portfolio and increase awareness of the bank. Our new CME is experienced and well-established in the region and we believe she will generate significant new business for the organization. We were already selectively lending in Central New York, in Syracuse and Ithaca, with existing customers as they expanded into this region. We made the decision to add this well-known executive in the market rather than service these and new relationships in the market out of the Rochester office.

# Expanding Our Team and Our Focus

We effectively implemented succession plans during the year for two key executive retirements. Valerie Benjamin was named Chief Human Resources Officer (“CHRO”), responsible for creating a compelling employee value proposition across the enterprise. Val is an experienced leader, having served most recently as the Associate Dean of Human Resources at the Cornell University’s Industrial and Labor Relations School and CHRO at EarthLink, following many years as the Global Director for Leadership, Culture and Values at Accenture.

Val succeeds Paula Dolan, who led our human resources function beginning in 2013 and significantly contributed to the development and evolution of our enterprise strategy. I would like to thank Paula for her many contributions to our company and we wish her the best in retirement.

In the spring of 2018, we announced that Kevin Klotzbach would step down as Chief Financial Officer at the end of the first quarter of 2019. In late October, following a national search, we announced that Justin Bigham would be his successor. Justin was named Deputy Chief Financial Officer with responsibility for finance and treasury operations.

Justin earned his CPA while working at PricewaterhouseCoopers and joins us with nearly 15 years of experience in Western New York banking. On April 1, 2019, Justin was named Chief Financial Officer and Kevin assumed the role of Senior Financial Advisor. Kevin will continue to support the company through the end of this year to ensure a successful transition.

Kevin joined our organization in 2001 as Treasurer and was named CFO in 2013. He and I worked together to effect positive change in our organization and his efforts were instrumental in growing and strengthening our company. On behalf of all our associates, I thank Kevin for all he has done in support of our shareholders, associates, customers and the communities we serve.

## Realignment of Leadership

We made changes to the executive leadership team in the fourth quarter to better meet the needs of customers and support growth initiatives. The intent of the reorganization was to better align our customer-facing relationship groups and operating units that impact the customer experience. This organizational approach will allow us to more effectively confirm the central view of a customer relationship which will enhance our ability to serve our customers with financial education, advice and the solutions we offer to meet their

banking, insurance and investment needs. My executive leadership team is now comprised of:

- **Bill Kreienberg**—Chief Banking and Revenue Officer, a new role consolidating all revenue and relationship-building businesses for banking, insurance and wealth management
- **Justin Bigham**—Chief Financial Officer
- **Valerie Benjamin**—Chief Human Resources Officer
- **Joe Dugan**—Chief Experience and Go To Market Officer, a new role consolidating leadership of marketing, technology, products, data management and customer experience
- **Sean Willett**—Chief Administration Officer, leading audit, compliance, operations, risk and strategy

I firmly believe that these leadership changes and the related reorganization will facilitate successful execution of our long-term strategic plan.

## Five Star Bank Brand Campaign

A refreshed Five Star Bank brand was introduced to the market in February 2018. The campaign is designed to create a more recognized brand across all the communities we serve and increase the understanding of the depth of products and services offered under the Five Star Bank umbrella.

Metrics used to measure the impact of the brand campaign correlate with our success across each step of the path to purchase model from awareness to consideration, evaluation, purchase and advocacy. Our current campaign is focused on awareness, where effectiveness is measured by unaided awareness. Target metrics were exceeded in 2018 with a nearly

40% increase in unaided awareness of Five Star Bank in our markets.

We redesigned the Five Star Bank website in connection with the brand launch to incorporate design elements of the brand and significantly enhance functionality and navigation. We updated content with more relevant and helpful information as well. Website enhancements positively impacted all digital devices, delivering an improved user

**Nearly 40% increase  
in unaided awareness  
of Five Star Bank  
in our markets.**



experience on computers, tablets, and mobile phones.

Website analytics show that these enhancements and the branding campaign drove a significant increase in traffic to the Five Star Bank website with a 20% increase in unique visitors (unpaid) and a 20% increase in new user traffic (unpaid) in 2018.

### **Enhancing the Five Star Employee Experience**

The most vital component of our past, current and future success is the Five Star family – all the associates of Five Star Bank, SDN Insurance Agency, Courier Capital and HNP Capital. At Five Star we work as a team in a welcoming environment of trust, integrity and respect, and have established the Five Star Experience cultural framework to support employee engagement.

We conduct surveys to measure engagement and I am pleased to report that in 2018 we experienced improvement in engagement scores for the second year in a row. Metrics are trending upward; however, we still have room for improvement. We will continue to use survey results and employee responses to identify ways to improve employee engagement. A workforce comprised of engaged employees is critical for us to be successful in delivering on our promise to “Put our customers’ financial well-being at the heart of everything we do.”

In January 2018 we enhanced the value of health, dental and wellness offerings through a change in our insurance provider. As a result, associates have benefited from better access to affordable, high-quality health care and the company has benefited from lower plan costs.

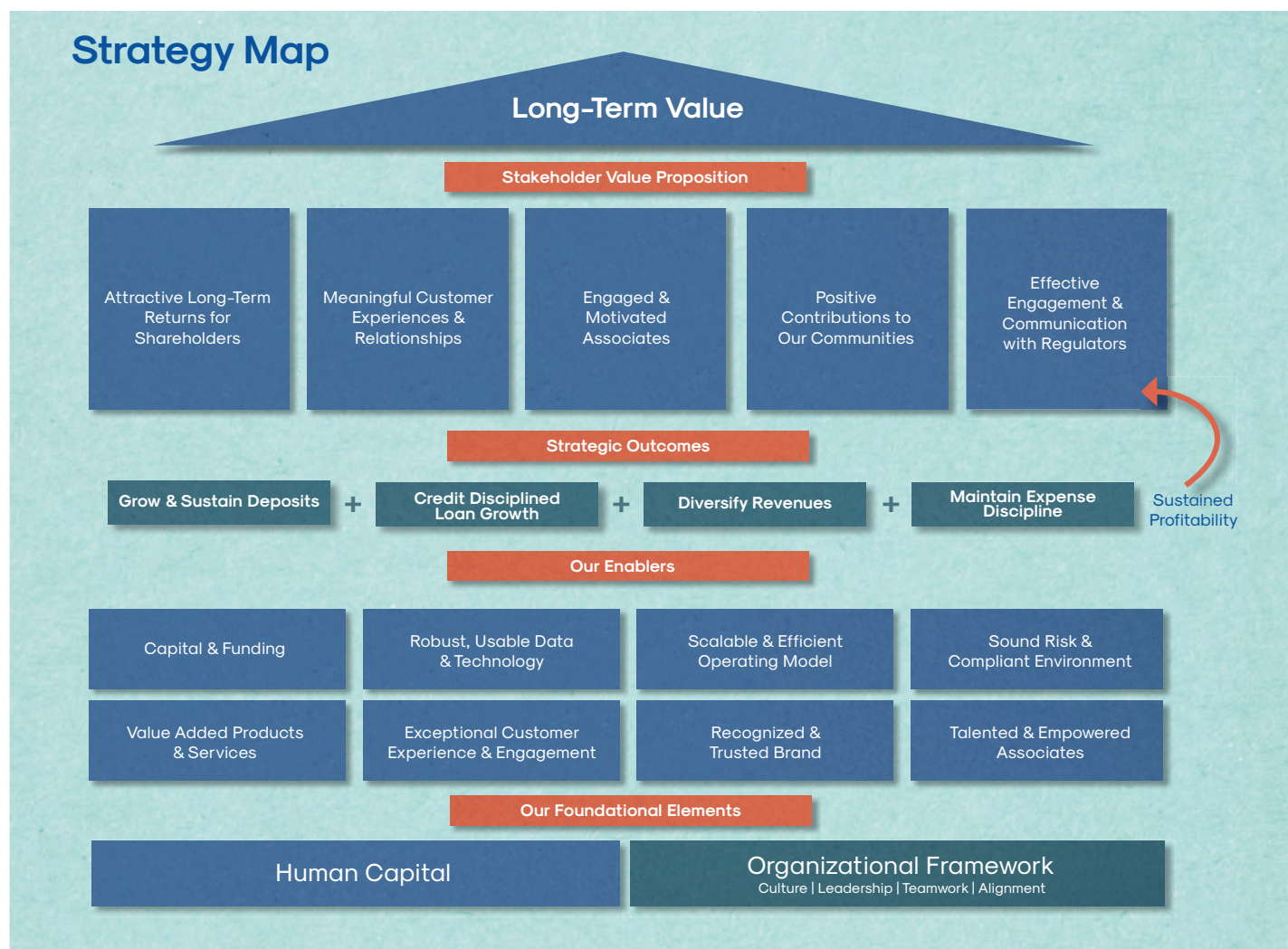
Savings from the Tax Cuts and Jobs Act also enabled us to strengthen relationships with employees. We paid a one-time award of \$500 to employees not covered by certain incentive programs in February 2018, with more than 70% of employees receiving the award. Subsequently, these same employees received a profit-share payment in early 2019 based on the company’s 2018 performance.



## Corporate Strategy and Enterprise Risk Management

Our Board of Directors regularly reviews our strategy, the environment in which we are operating and the progress we are making toward the goals we set. Our strategy clearly defines strategic priorities and contains annual and multi-year plans to deliver on these priorities. Throughout 2018, the board and management spent considerable time working together to refresh our long-term strategy, building on the strong foundation and momentum established over the last several years.

We remain committed to an effective and efficient risk and control environment and our long-term strategy is firmly linked to an enterprise risk management program ("ERM"). In 2018, the board reviewed our efforts to further develop and increase the effectiveness of our ERM program and approved our risk appetite statement, documenting the tolerance of intended risks associated with the execution of our long-term strategy.



## Investing in Our Communities

Five Star Bank has made significant investments in products and people to ensure the availability of safe, transparent and fair financial products. These offerings include a suite of products tailored to meet the needs of unbanked, underbanked and low-to-moderate income individuals. We are focused on helping all our customers build financial security.



We understand that as an employer, neighbor and steward of the communities where we operate, our responsibilities extend beyond the delivery of banking, insurance and investment solutions. Accordingly, we provide support to our communities in many ways.

- We provide financial grants to programs and organizations that empower individuals and neighborhoods.
- We sponsor events that enrich the lives of the residents of our communities.
- We are proud to support organizations across our operating footprint through donations and community sponsorships.
- Giving back is a high priority for all of us – our associates support more than 400 different community and professional organizations as volunteers, trustees and committee members.

- A strong commitment to small business lending is demonstrated by Five Star Bank's continued recognition as a top lender in our geographic footprint by the Small Business Administration.
- We have invested in a Community Development Officer and Community Development Mortgage Loan Officers to increase access to our products and services for those most in need.
- We also recognize the need for affordable and special needs housing in Upstate New York and in 2018 initiated a program to provide both debt and equity financing for these projects.

We welcome the opportunity to serve our communities and firmly believe that if our communities succeed, we will succeed.



Making progress in the community.





## Conclusion

We are committed to our shareholders, customers, associates and the communities we serve. We've made significant investments in systems, people and platforms over the past five years in support of all these constituencies, and I believe we are well-positioned to build on past results. With such large and compelling opportunities in front of us and the capabilities we possess, the outlook for our company is bright.

I also want to take this opportunity to thank retiring Board member Jim Wyckoff for 35 years of dedicated service to the company. We have benefited from his broad perspectives, sound judgment and constant counsel. Jim's commitment to an effective and accountable governance process contributed to invigorating discourse among Board members and management in support of strong execution of our plans and initiatives and the creation of long-term shareholder value.

As we take stock of Financial Institutions, Inc. today, we can see tangible results of the hard work that has strengthened and transformed our company which is producing stronger financial results and momentum. All of this is made possible by the more than 700 teammates who come to work every day to serve our customers and improve our communities. Together, we will take the company forward to deliver more value for those we serve and for our shareholders.

Thank you for your support and investment in Financial Institutions, Inc.

Cordially,

Martin K. Birmingham

President and Chief Executive Officer

April 22, 2019

# Five Star Leadership

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## Five Star Bank Executive Management

**Martin K. Birmingham**<sup>1</sup>  
President and Chief Executive Officer

**William L. Kreienberg**<sup>1</sup>  
Executive Vice President, Chief Banking and Revenue Officer and General Counsel

**Kevin B. Klotzbach**<sup>2</sup>  
Executive Vice President, Chief Financial Officer and Treasurer through March 31, 2019

**Justin K. Bigham**<sup>1</sup>  
Executive Vice President, Chief Financial Officer and Treasurer as of April 1, 2019

**Valerie C. Benjamin**  
Chief Human Resources Officer

**Joseph L. Dugan**  
Chief Experience and Go To Market Officer

**Sean M. Willett**  
Chief Administration Officer

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## Operating Committee<sup>3</sup>

**Scott D. Bader**  
Technology Services Director

**Amy M. Barone**  
Director of Operations

**Bethany L. Bowers**  
Chief Compliance Officer

**Samuel J. Burrano, Jr.**  
Deputy General Counsel and Corporate Secretary

**Craig J. Burton**  
Commercial Real Estate Executive

**Diane M. Camelio**  
Director of Retail Relationships

**David G. Case**  
Chief Commercial Credit Officer

**Staci L. Casseri**  
Director of Customer Experience

**Robert J. Cummins**  
Assistant Treasurer

**Sonia M. Dumbleton**  
Controller

**Michael D. Grover**  
Chief Accounting Officer, Financial Reporting and Tax Manager

**Laura J. Marlowe**  
Director of Marketing

**Edward "Ted" S. Oexle**  
C&I Lending Executive and Buffalo Regional President

**Timothy J. Perrotta**  
Manager of Total Rewards

**Randall R. Phillips**  
Chief Risk Officer

**Cory M. Popen**  
Enterprise Data Manager

**Brenda B. Schell**  
Audit Manager

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## Other Senior Management

**Jon M. Fogle**  
Commercial Market Executive and Rochester Regional President

**Karla J.L. Gadley**  
Community Development Officer

**Alison K. Miller**  
Commercial Market Executive-Central NY

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## SDN Insurance Agency, LLC

**William E. Gallagher**  
Managing Director

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## Courier Capital, LLC

**Thomas J. Hanlon**  
President

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## HNP Capital, LLC

**John R. Piccirilli**  
President

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## Board of Directors

**Karl V. Anderson, Jr.**<sup>4 5 8</sup>  
Of Counsel at Snavelly, Plaskov and Mullen, PLLC

**Martin K. Birmingham**  
President and CEO of Financial Institutions, Inc. and Five Star Bank

**Donald K. Boswell**<sup>4 7</sup>  
President and CEO of the Western New York Public Broadcasting Association (WNED-TV and WBFO-FM)

**Dawn H. Burlew**<sup>6 8</sup>  
Director of Business Development at Corning Enterprises

**Andrew W. Dorn, Jr.**<sup>5 6 8</sup>  
Co-Managing Director and Director of Government and Community Relations of Energy Solutions Consortium, LLC

**Robert M. Glaser**<sup>4 5</sup>  
President of Glaser Consulting, LLC

**Samuel M. Gullo**<sup>4 6</sup>  
Owner and Operator of Family Furniture

**Susan R. Holliday**<sup>5 6 7</sup>  
CEO of Dumbwaiter Design, LLC

**Robert N. Latella**<sup>5</sup>  
Chairman of Financial Institutions, Inc. and Five Star Bank; Of Counsel at Barolay Damon, LLP; and COO of Integrated Nano-Technologies, LLC

**Kim E. VanGelder**<sup>7 8</sup>  
Chief Information Officer and Senior Vice President of Eastman Kodak Company

**James H. Wyckoff, PhD**<sup>6 7</sup>  
University of Virginia Curry Memorial Professor of Education and Policy and Director of the Center for Education Policy and Workforce Competitiveness

<sup>1</sup> Also a Financial Institutions, Inc. officer  
<sup>2</sup> Financial Institutions, Inc. officer through March 31, 2019; currently serves as EVP, Senior Financial Advisor  
<sup>3</sup> In addition to Executive Management  
<sup>4</sup> Audit Committee; Robert M. Glaser, Chair

<sup>5</sup> Executive Committee; Robert N. Latella, Chair  
<sup>6</sup> Management Development and Compensation Committee; Andrew W. Dorn, Jr., Chair  
<sup>7</sup> Nominating and Governance Committee; Susan R. Holliday, Chair  
<sup>8</sup> Risk Oversight Committee; Karl V. Anderson, Jr., Chair

# Five Year Financial Highlights

(Dollars in thousands, except per share data)

At or for the year ended December 31,

	2018	2017	2016	2015	2014
<b>Selected financial condition data:</b>					
Total assets	\$4,311,698	\$4,105,210	\$3,710,340	\$3,381,024	\$3,089,521
Loans, net	3,052,684	2,700,345	2,309,227	2,056,677	1,884,365
Investment securities	892,258	1,041,439	1,083,264	1,030,112	916,932
Deposits	3,366,907	3,210,174	2,995,222	2,730,531	2,450,527
Borrowings	508,702	485,331	370,561	332,090	334,804
Shareholders' equity	396,293	381,177	320,054	293,844	279,532
Common shareholders' equity	378,965	363,848	302,714	276,504	262,192
Tangible common shareholders' equity <sup>1</sup>	302,792	289,145	227,074	209,558	193,553

<b>Selected operations data:</b>					
Interest income	\$152,732	\$130,110	\$115,231	\$105,450	\$101,055
Interest expense	29,868	17,495	12,541	10,137	7,281
Net interest income	122,864	112,615	102,690	95,313	93,774
Provision for loan losses	8,934	13,361	9,638	7,381	7,789
Net interest income after provision for loan losses	113,930	99,254	93,052	87,932	85,985
Noninterest income	36,478	34,730	35,760	30,337	25,350
Noninterest expense	100,876	90,513	84,671	79,393	72,355
Income before income taxes	49,532	43,471	44,141	38,876	38,980
Income tax expense	10,006	9,945	12,210	10,539	9,625
Net income	\$39,526	\$33,526	\$31,931	\$28,337	\$29,355
Preferred stock dividends	1,461	1,462	1,462	1,462	1,462
Net income available to common shareholders	\$38,065	\$32,064	\$30,469	\$26,875	\$27,893

<b>Stock and related per share data:</b>					
Earnings per common share:					
Basic	\$2.39	\$2.13	\$2.11	\$1.91	\$2.01
Diluted	\$2.39	\$2.13	\$2.10	\$1.90	\$2.00
Cash dividends declared per common share	\$0.96	\$0.85	\$0.81	\$0.80	\$0.77
Common book value per share	\$23.79	\$22.85	\$20.82	\$19.49	\$18.57
Tangible common book value per share <sup>1</sup>	\$19.01	\$18.16	\$15.62	\$14.77	\$13.71
Market price (Nasdaq: FIS):					
High	\$34.35	\$35.40	\$34.55	\$29.04	\$27.02
Low	\$24.49	\$25.65	\$25.98	\$21.67	\$19.72
Close	\$25.70	\$31.10	\$34.20	\$28.00	\$25.15

<b>Performance and Capital ratios:</b>					
Net income, returns on:					
Average assets	0.95%	0.86%	0.90%	0.87%	0.98%
Average equity	10.18%	9.62%	10.01%	9.78%	10.80%
Common dividend payout ratio	40.17%	39.91%	38.39%	41.88%	38.31%
Net interest margin (fully tax-equivalent)	3.18%	3.21%	3.24%	3.28%	3.50%
Effective tax rate	20.2%	22.9%	27.7%	27.1%	24.7%
Efficiency ratio <sup>2</sup>	62.73%	60.65%	60.95%	62.44%	59.18%
Common equity to assets	8.79%	8.86%	8.16%	8.18%	8.49%
Tangible common equity to tangible assets <sup>1</sup>	7.15%	7.17%	6.25%	6.32%	6.41%

<b>Other data</b>					
Number of branches	53	53	52	50	49
Full time equivalent employees	702	639	631	660	622

<sup>1</sup> This is a non-GAAP measure that we believe is useful in understanding our financial performance and condition. Refer to the GAAP to Non-GAAP Reconciliation on page 34 of our Annual Report on Form 10-K, which follows, for further information.

<sup>2</sup> Efficiency ratio provides a ratio of operating expenses to operating income. Efficiency ratio is calculated by dividing noninterest expense by net revenue, which is defined as the sum of tax-equivalent net interest income and noninterest income before net gains on investment securities. The efficiency ratio is not a financial measurement required by GAAP. However, the efficiency ratio is used by management in its assessment of financial performance specifically as it relates to noninterest expense control. Management also believes such information is useful to investors in evaluating Company performance.

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

**Form 10-K**

(Mark One)

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

For the fiscal year ended December 31, 2018

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
Commission file number **000-26481**

**FINANCIAL INSTITUTIONS, INC.**

(Exact name of registrant as specified in its charter)

**NEW YORK**

(State or other jurisdiction of incorporation or organization)

**16-0816610**

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

**220 LIBERTY STREET, WARSAW, NEW YORK**

(Address of principal executive offices)

**14569**

(ZIP Code)

Registrant's telephone number, including area code: **(585) 786-1100**

Securities registered under Section 12(b) of the Exchange Act:

Title of each class

**Common stock, par value \$0.01 per share**

Name of exchange on which registered

**Nasdaq Global Select Market**

Securities registered under Section 12(g) of the Exchange 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 past 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Non-accelerated filer

Accelerated filer

Smaller reporting company

Emerging growth company

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

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

The aggregate market value of the registrant's common stock, par value \$0.01 per share, held by non-affiliates of the registrant, as computed by reference to the June 30, 2018 closing price reported by Nasdaq, was approximately \$502,466,000.

As of February 22, 2019, there were outstanding, exclusive of treasury shares, 15,928,598 shares of the registrant's common stock.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's proxy statement for the 2019 Annual Meeting of Shareholders are incorporated by reference in Part III of this Annual Report on Form 10-K.

## TABLE OF CONTENTS

	<b>PART I</b>	<b><u>PAGE</u></b>
Item 1.	Business .....	4
Item 1A.	Risk Factors .....	20
Item 1B.	Unresolved Staff Comments .....	30
Item 2.	Properties .....	30
Item 3.	Legal Proceedings.....	30
Item 4.	Mine Safety Disclosures .....	30
<b>PART II</b>		
Item 5.	Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.....	31
Item 6.	Selected Financial Data .....	32
Item 7.	Management’s Discussion and Analysis of Financial Condition and Results of Operations .....	37
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk.....	60
Item 8.	Financial Statements and Supplementary Data.....	63
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure .....	132
Item 9A.	Controls and Procedures .....	132
Item 9B.	Other Information .....	132
<b>PART III</b>		
Item 10.	Directors, Executive Officers and Corporate Governance.....	133
Item 11.	Executive Compensation .....	133
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters .....	133
Item 13.	Certain Relationships and Related Transactions, and Director Independence.....	133
Item 14.	Principal Accounting Fees and Services.....	133
<b>PART IV</b>		
Item 15.	Exhibits and Financial Statement Schedules .....	134
Item 16.	Form 10-K Summary .....	135
	Signatures .....	136

## PART I

### FORWARD LOOKING INFORMATION

Statements and financial analysis contained in this Annual Report on Form 10-K that are based on other than historical data are forward-looking within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements provide current expectations or forecasts of future events and include, among others:

- statements with respect to the beliefs, plans, objectives, goals, guidelines, expectations, anticipations, and future financial condition, results of operations and performance of Financial Institutions, Inc. (the “Parent” or “FII”) and its subsidiaries (collectively, the “Company,” “we,” “our” or “us”); and
- statements preceded by, followed by or that include the words “may,” “could,” “should,” “would,” “believe,” “anticipate,” “estimate,” “expect,” “intend,” “plan,” “projects” or similar expressions.

These forward-looking statements are not guarantees of future performance, nor should they be relied upon as representing management’s views as of any subsequent date. Forward-looking statements involve significant risks and uncertainties and actual results may differ materially from those presented, either expressed or implied, in this Annual Report on Form 10-K, including, but not limited to, those presented in the Management’s Discussion and Analysis of Financial Condition and Results of Operations. Factors that might cause such material differences include, but are not limited to:

- If we experience greater credit losses than anticipated, earnings may be adversely impacted;
- Our tax strategies and the value of our deferred tax assets and liabilities could adversely affect our operating results and regulatory capital ratios;
- Geographic concentration may unfavorably impact our operations;
- We depend on the accuracy and completeness of information about or from customers and counterparties;
- Our insurance brokerage subsidiary is subject to risk related to the insurance industry;
- Our investment advisory and wealth management operations are subject to risks related to the regulation of the financial services industry and market volatility;
- We may be unable to successfully implement our growth strategies, including the integration and successful management of newly-acquired businesses;
- We are subject to environmental liability risk associated with our lending activities;
- Our commercial business and mortgage loans increase our exposure to credit risks;
- Our indirect and consumer lending involves risk elements in addition to normal credit risk;
- Lack of seasoning in portions of our loan portfolio could increase risk of credit defaults in the future;
- We accept deposits that do not have a fixed term, and which may be withdrawn by the customer at any time for any reason;
- Any future FDIC insurance premium increases may adversely affect our earnings;
- We are highly regulated, and any adverse regulatory action may result in additional costs, loss of business opportunities, and reputational damage;
- We make certain assumptions and estimates in preparing our financial statements that may prove to be incorrect, which could significantly impact our results of operations, cash flows and financial condition, and we are subject to new or changing accounting rules and interpretations, and the failure by us to correctly interpret or apply these evolving rules and interpretations could have a material adverse effect;
- Legal and regulatory proceedings and related matters could adversely affect us and the banking industry in general;
- A breach in security of our or third party information systems, including the occurrence of a cyber incident or a deficiency in cybersecurity, or a failure by us to comply with enhanced New York State cybersecurity regulations, may subject us to liability, result in a loss of customer business or damage our brand image;
- We face competition in staying current with technological changes and banking alternatives to compete and meet customer demands;
- We rely on other companies to provide key components of our business infrastructure;
- We use financial models for business planning purposes that may not adequately predict future results;
- We may not be able to attract and retain skilled people;
- Acquisitions may disrupt our business and dilute shareholder value;
- We are subject to interest rate risk, and a rising rate environment may reduce our income and result in higher defaults on our loans;
- Our business may be adversely affected by conditions in the financial markets and economic conditions generally;
- The policies of the Federal Reserve have a significant impact on our earnings;
- The soundness of other financial institutions could adversely affect us;
- The value of our goodwill and other intangible assets may decline in the future;
- We operate in a highly competitive industry and market area;

- Severe weather, natural disasters, acts of war or terrorism, and other external events could significantly impact our business;
- Liquidity is essential to our businesses;
- We may need to raise additional capital in the future and such capital may not be available on acceptable terms or at all;
- We rely on dividends from our subsidiaries for most of our revenue;
- We may not pay or may reduce the dividends on our common stock;
- We may issue debt and equity securities or securities convertible into equity securities, any of which may be senior to our common stock as to distributions and in liquidation, which could dilute our current shareholders or negatively affect the value of our common stock;
- Our certificate of incorporation, our bylaws, and certain banking laws may have an anti-takeover effect; and
- The market price of our common stock may fluctuate significantly in response to a number of factors.

We caution readers not to place undue reliance on any forward-looking statements, which speak only as of the date made, and advise readers that various factors, including those described above, could affect our financial performance and could cause our actual results or circumstances for future periods to differ materially from those anticipated or projected. See also Item 1A, Risk Factors, of this Annual Report on Form 10-K for further information. Except as required by law, we do not undertake, and specifically disclaim any obligation to publicly release any revisions to any forward-looking statements to reflect the occurrence of anticipated or unanticipated events or circumstances after the date of such statements.

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## **ITEM 1. BUSINESS**

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### **GENERAL**

The Parent is a financial holding company organized in 1931 under the laws of New York State (“New York” or “NYS”). The principal office of the Parent is located at 220 Liberty Street, Warsaw, New York 14569 and its telephone number is (585) 786-1100. The Parent was incorporated on September 15, 1931, but the continuity of the Company’s banking business is traced to the organization of the National Bank of Geneva on March 28, 1817. Except as the context otherwise requires, the Parent and its direct and indirect subsidiaries are collectively referred to in this report as the “Company.” Five Star Bank is referred to as “Five Star Bank,” “FSB” or “the Bank,” SDN Insurance Agency, LLC (formerly Scott Danahy Naylon, LLC) is referred to as “SDN,” Courier Capital, LLC is referred to as “Courier Capital” and HNP Capital, LLC is referred to as “HNP Capital.” The consolidated financial statements include the accounts of the Parent, the Bank, SDN, Courier Capital and HNP Capital. The Parent’s common stock is traded on the Nasdaq Global Select Market under the ticker symbol “FISI.”

At December 31, 2018, the Company had consolidated total assets of \$4.31 billion, deposits of \$3.37 billion and shareholders’ equity of \$396.3 million.

The Parent’s primary business is the operation of its subsidiaries. It does not engage in any other substantial business activities. The Parent’s four direct wholly-owned subsidiaries are: (1) the Bank, which provides a full range of banking services to consumer, commercial and municipal customers in Western and Central New York; (2) SDN, which sells various premium-based insurance policies on a commission basis to commercial and consumer customers; and (3) Courier Capital and (4) HNP Capital, which both provide customized investment advice, wealth management, investment consulting and retirement plan services to individuals, businesses, institutions, foundations and retirement plans. At December 31, 2018, the Bank represented 99.1%, SDN represented 0.4% and Courier Capital and HNP Capital combined represented 0.5% of the consolidated assets of the Company.

### **Five Star Bank**

The Bank is a New York-chartered bank that has its headquarters at 55 North Main Street, Warsaw, NY, and a total of 53 full-service banking offices in the New York State counties of Allegany, Cattaraugus, Cayuga, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Steuben, Wyoming and Yates counties.

At December 31, 2018, the Bank had total assets of \$4.27 billion, investment securities of \$892.3 million, net loans of \$3.05 billion, deposits of \$3.37 billion and shareholders’ equity of \$399.3 million, compared to total assets of \$4.07 billion, investment securities of \$1.04 billion, net loans of \$2.70 billion, deposits of \$3.22 billion and shareholders’ equity of \$382.5 million at December 31, 2017. The Bank offers deposit products, which include checking and NOW accounts, savings accounts, and certificates of deposit, as its principal source of funding. The Bank’s deposits are insured up to the maximum permitted by the Bank Insurance Fund (the “Insurance Fund”) of the Federal Deposit Insurance Corporation (“FDIC”). The Bank offers a variety of loan products to its customers, including commercial and consumer loans.



### **SDN Insurance Agency, LLC (formerly Scott Danahy Naylor, LLC)**

Acquired in August 2014, SDN is a full-service insurance agency founded in 1923 and headquartered in Amherst, NY. SDN offers personal, commercial and financial services products. For the year ended December 31, 2018, SDN had total revenue of \$4.8 million.

Most lines of personal insurance are provided, including automobile, homeowners, boat, recreational vehicle, landlord, and umbrella coverage. Commercial insurance products are also provided, consisting of property, liability, automobile, inland marine, workers compensation, bonds, crop and umbrella insurance. SDN also provides the following financial services products: life and disability insurance, Medicare supplements, long-term care, annuities, mutual funds, retirement programs and New York State disability.

### **Courier Capital, LLC**

Acquired in January 2016, Courier Capital is an SEC-registered investment advisory and wealth management firm founded in 1967 and based in Western New York, with offices in Buffalo, Amherst and Jamestown. With \$1.63 billion in assets under management as of December 31, 2018, Courier Capital offers customized investment advice, wealth management, investment consulting and retirement plan services to individuals, businesses and institutions. For the year ended December 31, 2018, Courier Capital had total revenue of \$5.0 million.

### **HNP Capital, LLC**

Acquired in June 2018, HNP Capital is an SEC-registered investment advisory and wealth management firm founded in 2009 and based in Rochester, New York. With \$349 million in assets under management as of December 31, 2018, HNP Capital offers customized investment advice, wealth management, investment consulting and retirement plan services to individuals, businesses and institutions. For the period from date of acquisition through December 31, 2018, HNP Capital had total revenue of \$1.0 million.

### **Other Subsidiaries**

**Five Star REIT, Inc.** Five Star REIT, Inc. (“Five Star REIT”), a wholly-owned subsidiary of the Bank, operates as a real estate investment trust that holds residential mortgages and commercial real estate loans. Five Star REIT provides additional flexibility and planning opportunities for the business of the Bank.

### **Business Strategy**

Our business strategy has been to maintain a community bank philosophy, which consists of focusing on and understanding the individualized banking and other financial services needs of individuals, municipalities and businesses of the local communities surrounding our primary service area. We believe this focus allows us to be more responsive to our customers’ needs and provide a high level of personal service that differentiates us from larger competitors, resulting in long-standing and broad-based banking relationships. Our core customers are primarily small- to medium-sized businesses, individuals and community organizations who prefer to build banking, insurance and wealth management relationships with a community bank that offers high quality, competitively-priced products and services with personalized service. Because of our identity and origin as a locally operated bank, we believe that our level of personal service provides a competitive advantage over larger banks, which tend to consolidate decision-making authority outside local communities.

A key aspect of our current business strategy is to foster a community-oriented culture where our customers and employees establish long-standing and mutually beneficial relationships. We believe that we are well-positioned to be a strong competitor within our market area because of our focus on community banking needs and customer service, our comprehensive suite of deposit, loan, insurance and wealth management products typically found at larger banks, our highly experienced management team and our strategically located banking centers. We have evolved to meet changing customer needs by opening what we refer to as financial solution center branches. These financial solution centers have a smaller footprint than our traditional branches, focus on technology to provide solutions that fit our customer preferences for transacting business with us, and these branches are staffed by certified personal bankers who are trained to meet a broad array of customer needs. In recent years, we have opened four financial solution centers in the Rochester and Buffalo markets. We believe that the foregoing factors all help to grow our core deposits, which supports a central element of our business strategy - the growth of a diversified and high-quality loan portfolio.

## **Acquisition Strategy**

We will continue to explore market expansion opportunities in or near our current market areas as opportunities arise. Our primary focus will be on increasing market share within existing markets, while taking advantage of potential growth opportunities within our insurance and wealth management lines of business by acquiring new businesses that can be added to existing operations. We believe our capital position remains strong enough to support an active merger and acquisition strategy, and expansion of our core financial service businesses of banking, insurance and wealth management. Consequently, we continue to explore acquisition opportunities in these activities. In evaluating acquisition opportunities, we will balance the potential for earnings accretion with maintaining adequate capital levels, which could result in our common stock being the predominant form of consideration and/or the need for us to raise capital.

Conversations with potential strategic partners occur on a regular basis. The evaluation of any potential opportunity will favor a transaction that complements our core competencies and strategic intent, with a lesser emphasis being placed on geographic location or size. Additionally, we remain committed to maintaining a diversified revenue stream. Our senior management team has experience in acquisitions and post-acquisition integration of operations and is prepared to act quickly should a potential opportunity arise but will remain disciplined with its approach. We believe this experience positions us to successfully acquire and integrate additional financial services and banking businesses.

## **MARKET AREAS AND COMPETITION**

We provide a wide range of banking and financial services to individuals, municipalities and businesses through a network of over 50 offices and an extensive ATM network throughout Western and Central New York. The region includes the counties of Allegany, Cattaraugus, Cayuga, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Wyoming and Yates counties. Our banking activities, though concentrated in the communities where we maintain branches, also extend into neighboring counties. In addition, our consumer indirect lending presence includes the Capital District of New York and Northern and Central Pennsylvania.

Our market area is economically diversified in that we serve both rural markets and the larger markets in and around Rochester and Buffalo. Rochester and Buffalo are the two largest metropolitan areas in New York outside of New York City, with a combined population of over two million people. We anticipate continuing to increase our presence in and around these metropolitan statistical areas in the coming years.

We face significant competition in both making loans and attracting deposits, as Western and Central New York have a high density of financial institutions. Our competition for loans comes principally from commercial banks, savings banks, savings and loan associations, mortgage banking companies, credit unions, insurance companies and other financial services companies. Our most direct competition for deposits has historically come from commercial banks, savings banks and credit unions. We face additional competition for deposits from non-depository competitors such as the mutual fund industry, securities and brokerage firms and insurance companies. We generally compete with other financial service providers on factors such as level of customer service, responsiveness to customer needs, availability and pricing of products, and geographic location. Our industry frequently experiences merger activity, which affects competition by eliminating some institutions while potentially strengthening the franchises of others.

The following table presents the Bank’s market share percentage for total deposits as of June 30, 2018, in each county where we have operations. The table also indicates the ranking by deposit size in each market. All information in the table was obtained from S&P Global Market Intelligence, which compiles deposit data published by the FDIC as of June 30, 2018 and updates the information for any bank mergers and acquisitions completed subsequent to the reporting date.

<b>County</b>	<b>Market Share</b>	<b>Market Rank</b>	<b>Number of Branches <sup>(1)</sup></b>
Allegany	8.5%	3	1
Cattaraugus	28.2%	2	5
Cayuga	4.0%	9	1
Chautauqua	1.9%	8	1
Chemung	15.9%	3	3
Erie	0.4%	10	4
Genesee	22.6%	2	3
Livingston	36.2%	1	5
Monroe	1.9%	8	8
Ontario	14.0%	2	5
Orleans	30.0%	2	2
Seneca	28.7%	1	2
Steuben	32.0%	1	7
Wyoming	53.1%	1	4
Yates	39.4%	1	2

(1) Number of branches current as of December 31, 2018.

## INVESTMENT ACTIVITIES

Our investment policy is contained within our overall Asset-Liability Management and Investment Policy. This policy dictates that investment decisions will be made based on the safety of the investment, liquidity requirements, potential returns, cash flow targets, need for collateral and desired risk parameters. In pursuing these objectives, we consider the ability of an investment to provide earnings consistent with factors related to quality, maturity, marketability, pledgeable nature and risk diversification. Our Treasurer, guided by our Asset-Liability Committee (“ALCO”), is responsible for investment portfolio decisions within the established policies.

Our investment securities strategy is focused on providing liquidity to meet loan demand and redeeming liabilities, meeting pledging requirements, managing credit risks, managing overall interest rate risks and maximizing portfolio yield. Our current policy generally limits security purchases to the following:

- U.S. treasury securities;
- U.S. government agency securities, which are securities issued by official Federal government bodies (e.g., the Government National Mortgage Association (“GNMA”) and the Small Business Administration (“SBA”)), and U.S. government-sponsored enterprise securities, which are securities issued by independent organizations that are in part sponsored by the federal government (e.g., the Federal Home Loan Bank (“FHLB”) system, the Federal National Mortgage Association (“FNMA”), the Federal Home Loan Mortgage Corporation (“FHLMC”) and the Federal Farm Credit Bureau);
- Mortgage-backed securities (“MBS”), which include mortgage-backed pass-through securities, collateralized mortgage obligations and multi-family MBS issued by GNMA, FNMA and FHLMC;
- Investment grade municipal securities, including revenue, tax and bond anticipation notes, statutory installment notes and general obligation bonds;
- Certain creditworthy unrated securities issued by municipalities;
- Certificates of deposit;
- Equity securities at the holding company level;
- Derivative instruments; and
- Limited partnership investments.

## **LENDING ACTIVITIES**

### **General**

We offer a broad range of loans including commercial business and revolving lines of credit, commercial mortgages, equipment loans, residential mortgage loans and home equity loans and lines of credit, home improvement loans, automobile loans and personal loans. Newly originated and refinanced fixed rate residential mortgage loans are either retained in our portfolio or sold to the secondary market with servicing rights retained.

We continually evaluate and update our lending policy. The key elements of our lending philosophy include the following:

- To ensure consistent underwriting, employees must share a common view of the risks inherent in lending activities as well as the standards to be applied in underwriting and managing credit risk;
- Pricing of credit products should be risk-based;
- The loan portfolio must be diversified to limit the potential impact of negative events; and
- Careful, timely exposure monitoring through dynamic use of our risk rating system is required to provide early warning and assure proactive management of potential problems.

### **Commercial Business and Commercial Mortgage Lending**

We primarily originate commercial business loans in our market areas and underwrite them based on the borrower's ability to service the loan from operating income. We offer a broad range of commercial lending products, including term loans and lines of credit. Short and medium-term commercial loans, primarily collateralized, are made available to businesses for working capital (including inventory and receivables), business expansion (including acquisition of real estate, expansion and improvements) and the purchase of equipment. We offer commercial business loans to customers in the agricultural industry for short-term crop production, farm equipment and livestock financing. As a general practice, where possible, a first position collateral lien is placed on any available real estate, equipment or other assets owned by the borrower and a personal guarantee of the owner is obtained. As of December 31, 2018, \$162.3 million, or 29%, of our aggregate commercial business loan portfolio were at fixed rates, while \$395.6 million, or 71%, were at variable rates.

We also offer commercial mortgage loans to finance the purchase of real property, which generally consists of real estate with completed structures. Commercial mortgage loans are secured by first liens on the real estate and are typically amortized over a 10 to 20-year period. The underwriting analysis includes credit verification, appraisals and a review of the borrower's financial condition and repayment capacity. As of December 31, 2018, \$584.0 million, or 61%, of the loans in our aggregate commercial mortgage portfolio were at fixed rates, while \$374.1 million, or 39%, were at variable rates.

We utilize government loan guarantee programs where available and appropriate.

### **Government Guarantee Programs**

We participate in government loan guarantee programs offered by the SBA, U.S. Department of Agriculture, Rural Economic and Community Development and Farm Service Agency, among others. As of December 31, 2018, we had loans with an aggregate principal balance of \$44.7 million that were covered by guarantees under these programs. The guarantees typically only cover a certain percentage of these loans. By participating in these programs, we are able to broaden our base of borrowers while reducing credit risk.

### **Residential Real Estate Lending**

We originate fixed and variable rate one-to-four family residential mortgages collateralized by owner-occupied properties located in our market areas. We offer a variety of real estate loan products, including home improvement loans, closed-end home equity loans, and home equity lines of credit, which are generally amortized over periods of up to 30 years. Loans collateralized by one-to-four family residential real estate generally have been originated in amounts of no more than 80% of appraised value or have mortgage insurance. Mortgage title insurance and hazard insurance are normally required. We sell certain one-to-four family residential mortgages to the secondary mortgage market and typically retain the right to service the mortgages. We typically follow the underwriting and appraisal guidelines of the secondary market, including the FHLMC and the Federal Housing Administration, and service the loans in a manner that satisfies the secondary market agreements. As of December 31, 2018, our residential mortgage servicing portfolio totaled \$171.5 million, the majority of which has been sold to the FHLMC. As of December 31, 2018, our residential real estate loan portfolio totaled \$524.2 million, or 17% of our total loan portfolio. As of December 31, 2018, our residential real estate lines portfolio totaled \$109.7 million, or 4% of our total loan portfolio. As of December 31, 2018, \$452.4 million, or 86%, of the loans in our residential real estate loan portfolio were at fixed rates, while \$71.8 million, or 14%, were at variable rates. The residential real estate lines portfolio primarily consists of variable rate lines. Approximately 89% of the loans and lines in our residential real estate portfolios were in first lien positions at December 31, 2018. We do not engage in sub-prime or other high-risk residential mortgage lending as a line-of-business.

## **Consumer Lending**

We offer a variety of loan products to our consumer customers, including automobile loans, secured installment loans and other types of secured and unsecured personal loans. At December 31, 2018, outstanding consumer loan balances were concentrated in indirect automobile loans.

We originate indirect consumer loans for a mix of new and used vehicles through franchised new car dealers. The consumer indirect loan portfolio is primarily comprised of loans with terms that typically range from 36 to 84 months. We have developed relationships with franchised new car dealers in Western, Central and the Capital District of New York, and Northern and Central Pennsylvania. As of December 31, 2018, our consumer indirect portfolio totaled \$919.9 million, or 30% of our total loan portfolio. The consumer indirect loan portfolio primarily consists of fixed rate loans with relatively short durations.

We also originate, independently of the indirect loans described above, consumer automobile loans, recreational vehicle loans, boat loans, personal loans (collateralized and uncollateralized) and deposit account collateralized loans. The terms of these loans typically range from 12 to 60 months and vary based upon the nature of the collateral and the size of loan. A portion of the consumer lending program is underwritten on a secured basis using the customer's financed automobile, mobile home, boat or recreational vehicle as collateral. The other loans in our consumer portfolio totaled \$16.8 million as of December 31, 2018, all of which were fixed rate loans.

## **Credit Administration**

Our loan policy establishes standardized underwriting guidelines, as well as the loan approval process and the committee structures necessary to facilitate and ensure the highest possible loan quality decision-making in a timely and businesslike manner. The policy establishes requirements for extending credit based on the size, risk rating and type of credit involved. The policy also sets limits on individual lending authority and various forms of joint lending authority, while designating which loans are required to be approved at the committee level.

Our credit objectives are to:

- Compete effectively and service the legitimate credit needs of our target market;
- Enhance our reputation for superior quality and timely delivery of products and services;
- Provide pricing that reflects the entire relationship and is commensurate with the risk profiles of our borrowers;
- Retain, develop and acquire profitable, multi-product, value added relationships with high quality borrowers;
- Focus on government guaranteed lending to meet the needs of the small businesses in our communities; and
- Comply with all relevant laws and regulations.

Our policy includes loan reviews, under the supervision of our Audit and Risk Oversight committees of the Board of Directors and directed by our Chief Risk Officer, in order to render an independent and objective evaluation of our asset quality and credit administration process.

We assign risk ratings to loans in the commercial business and commercial mortgage portfolios. We use those risk ratings to:

- Profile the risk and exposure in the loan portfolio and identify developing trends and relative levels of risk;
- Identify deteriorating credits;
- Reflect the probability that a given customer may default on its obligations; and
- Assist with risk-based pricing.

Through the loan approval process, loan administration and loan review program, management seeks to continuously monitor our credit risk profile and assess the overall quality of the loan portfolio and adequacy of the allowance for loan losses.

We have several procedures in place to assist in maintaining the overall quality of our loan portfolio. Delinquent loan reports are monitored by credit administration to identify adverse levels and trends. Loans, including impaired loans, are generally classified as non-accruing if they are past due as to maturity or payment of principal or interest for a period of more than 90 days, unless such loans are well-collateralized and in the process of collection. Loans that are on a current payment status or past due less than 90 days may also be classified as non-accruing if repayment in full of principal and/or interest is uncertain.

## **Allowance for Loan Losses**

The allowance for loan losses is established through charges to earnings in the form of a provision for loan losses. The allowance reflects management's estimate of the amount of probable loan losses in the portfolio, based on factors including, but not limited to:

- Specific allocations for individually analyzed credits;
- Risk assessment process;
- Historical net charge-off experience;
- Evaluation of loss emergence and look-back periods;
- Evaluation of the loan portfolio with loan reviews;
- Levels and trends in delinquent and non-accruing loans;
- Trends in volume and terms of loans;
- Effects of changes in lending policy;
- Experience, ability and depth of management;
- National and local economic trends and conditions;
- Concentrations of credit;
- Interest rate environment;
- Regulatory environment;
- Information (availability of timely financial information); and
- Collateral values.

Our methodology for estimating the allowance for loan losses includes the following:

1. Impaired commercial business and commercial mortgage loans are typically reviewed individually and assigned a specific loss allowance, if considered necessary, in accordance with U.S. generally accepted accounting principles ("GAAP").
2. The remaining portfolios of commercial business and commercial mortgage loans are segmented by risk rating into the following loan classification categories: uncriticized or pass, special mention, substandard and doubtful. Uncriticized loans, special mention loans, substandard loans and all doubtful loans not assigned a specific loss allowance are assigned allowance allocations based on historical net loan charge-off experience for each of the respective loan categories, supplemented with loss emergence periods and qualitative factors, if considered necessary. These qualitative factors include the levels and trends in delinquent and non-accruing loans, trends in volume and terms of loans, effects of changes in lending policy, experience, ability, and depth of management, national and local economic trends and conditions, concentrations of credit, interest rate environment, regulatory environment, information (availability of timely financial information), and collateral values, among others.
3. The retail loan portfolio is segmented into the following types of loans: residential real estate loans, residential real estate lines, consumer indirect and other consumer. Allowance allocations for the retail loan portfolio are based on the average loss experience for the previous eight quarters, supplemented with loss emergence periods and qualitative factors similar to the elements described above.

Management presents a quarterly review of the adequacy of the allowance for loan losses to the Audit Committee of our Board of Directors based on the methodology described above. See also the section titled "Allowance for Loan Losses" in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Annual Report on Form 10-K.

## **SOURCES OF FUNDS**

Our primary sources of funds are deposits and borrowed funds.

### **Deposits**

We maintain a full range of deposit products and accounts to meet the needs of the residents and businesses in our primary service area. Products include an array of checking and savings account programs for individuals and businesses, including money market accounts, certificates of deposit, sweep investment capabilities as well as Individual Retirement Accounts and other qualified plan accounts. We rely primarily on competitive pricing of our deposit products, customer service and long-standing relationships with customers to attract and retain these deposits and seek to make our services convenient to the community by offering a choice of several delivery systems and channels, including telephone, mail, online, automated teller machines (ATMs), debit cards, point-of-sale transactions, automated clearing house transactions (ACH), remote deposit, and mobile banking via telephone or wireless devices. We also take advantage of the use of technology by offering business customers banking access via the Internet and various advanced cash management systems.

We also participate in Certificate of Deposit Account Registry Service (“CDARS”) and Insured Cash Sweep (“ICS”) programs, which enable depositors to receive FDIC insurance coverage for deposits otherwise exceeding the maximum insurable amount. Through these programs, deposits in excess of the maximum insurable amount are placed with multiple participating financial institutions. Prior to the Economic Growth, Regulatory Relief and Consumer Protection Act (“Economic Growth Act”) enacted on May 14, 2018, all CDARS and ICS deposits were considered brokered deposits for regulatory reporting purposes. With the enactment of Economic Growth Act, reciprocal CDARS and ICS deposits, subject to certain restrictions, are no longer required to be reported as brokered deposits. CDARS deposits and ICS deposits totaled \$224.9 million and \$149.6 million, respectively, at December 31, 2018.

## **Borrowings**

We have access to a variety of borrowing sources and use both short-term and long-term borrowings to support our asset base. Borrowings from time-to-time include federal funds purchased, securities sold under agreements to repurchase, FHLB advances and borrowings from the discount window of the FRB, as defined below.

Other sources of funds include scheduled amortization and prepayments of principal from loans and mortgage-backed securities, maturities and calls of investment securities and funds provided by operations.

## **OTHER INFORMATION**

We also make available, free of charge through our website, all reports filed with or furnished to the Securities and Exchange Commission (“SEC”), including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as any amendments to those reports, as soon as reasonably practicable after those documents are filed with or furnished to the SEC. These filings may be viewed by accessing the *SEC Filings* subsection of the *Financials* section of our website ([www.fiiwarsaw.com](http://www.fiiwarsaw.com)). Information available on our website is not a part of, and is not incorporated into, this Annual Report on Form 10-K.

All of the reports we file with the SEC, including this Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as any amendments thereto may be accessed at [www.sec.gov](http://www.sec.gov).

## **SUPERVISION AND REGULATION**

We are subject to extensive regulation under federal and state laws. The regulatory framework is intended primarily for the protection of depositors, federal deposit insurance funds and the banking system as a whole and not for the protection of shareholders and creditors.

We are also subject to the disclosure and regulatory requirements of the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended, as administered by the SEC. Our common stock is listed on the Nasdaq Global Select Market (“Nasdaq”) under the trading symbol “FISI” and is subject to Nasdaq rules for listed companies.

Significant elements of the laws and regulations applicable to the Company are described below. The description is qualified in its entirety by reference to the full text of the statutes, regulations and policies that are described. Also, such statutes, regulations and policies are continually under review by Congress, state legislatures, and federal and state regulatory agencies. A change in statutes, regulations or regulatory policies applicable to the Company could have a material effect on the business, financial condition and results of operations of the Company.

**Holding Company Regulation.** We are subject to comprehensive regulation by the Board of Governors of the Federal Reserve System, frequently referred to as the Federal Reserve Board (“FRB” or “Federal Reserve”), under the Bank Holding Company Act (the “BHC Act”), as amended by, among other laws, the Gramm-Leach-Bliley Act of 1999 (the “Gramm-Leach-Bliley Act”), and by the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”), enacted in 2010. We are registered with the Federal Reserve as a bank holding company (“BHC”). We must file reports with the FRB and such additional information as the FRB may require, and our holding company and non-banking affiliates are subject to examination by the FRB. Under FRB policy, a bank holding company must serve as a source of strength for its subsidiary banks. Under this policy, the FRB may require, and has required in the past, a holding company to contribute additional capital to an undercapitalized subsidiary bank. The BHC Act provides that a bank holding company must obtain FRB approval before:

- Acquiring, directly or indirectly, ownership or control of any voting shares of another bank or bank holding company if, after such acquisition, it would own or control more than 5% of such shares (unless it already owns or controls the majority of such shares);
- Acquiring all or substantially all of the assets of another bank or bank holding company, or
- Merging or consolidating with another bank holding company.

The BHC Act generally prohibits a bank holding company from acquiring direct or indirect ownership or control of more than 5% of the voting shares of any company which is not a bank or bank holding company, or from engaging directly or indirectly in activities other than those of banking, managing or controlling banks, or providing services for its subsidiaries. The principal exceptions to these prohibitions involve certain non-bank activities which, by statute or by FRB regulation or order, have been identified as activities closely related to the business of banking or managing or controlling banks. The list of activities permitted by the FRB includes, among other things: lending; operating a savings institution, mortgage company, finance company, credit card company or factoring company; performing certain data processing operations; providing certain investment and financial advice; underwriting and acting as an insurance agent for certain types of credit related insurance; leasing property on a full-payout, non-operating basis; selling money orders, travelers' checks and United States Savings Bonds; real estate and personal property appraising; providing tax planning and preparation services; and, subject to certain limitations, providing securities brokerage services for customers. These activities may also be affected by federal legislation.

The Gramm-Leach-Bliley Act amended portions of the BHC Act to authorize bank holding companies, such as us, directly or through non-bank subsidiaries to engage in securities, insurance and other activities that are financial in nature or incidental to a financial activity. In order to undertake these activities, a bank holding company must become a "financial holding company" by submitting to the appropriate Federal Reserve Bank a declaration that the company elects to be a financial holding company and a certification that all of the depository institutions controlled by the company are well capitalized and well managed.

**The Dodd-Frank Act.** The Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") significantly changed the regulation of financial institutions and the financial services industry. The Dodd-Frank Act includes provisions affecting large and small financial institutions alike, including several provisions that will profoundly affect how community banks, thrifts, and small bank and thrift holding companies will be regulated in the future. Among other things, these provisions abolished the Office of Thrift Supervision and transferred its functions to the other federal banking agencies, relaxed rules regarding interstate branching, allowed financial institutions to pay interest on business checking accounts, and imposed new capital requirements on bank and thrift holding companies. The Dodd-Frank Act also includes several corporate governance provisions that apply to all public companies, not just financial institutions. These include provisions mandating certain disclosures regarding executive compensation and provisions addressing proxy access by shareholders. We have elected to be treated as a financial holding company.

The Dodd-Frank Act contains numerous other provisions affecting financial institutions of all types, including some that may affect our business in substantial and unpredictable ways. We have incurred higher operating costs in complying with the Dodd-Frank Act, and we expect that these higher costs will continue for the foreseeable future. Our management continues to monitor the ongoing implementation of the Dodd-Frank Act and as new regulations are issued, will assess their effect on our business, financial condition and results of operations.

On February 3, 2017, President Donald J. Trump issued an executive order directing the Secretary of the Treasury to report, within 120 days, on whether current governmental rules and policies either promote or inhibit the "Core Principles for Financial Regulation" as defined in the executive order (the "Executive Order"). The Treasury Department has since issued multiple reports in response to the Executive Order, the first of which, issued on June 12, 2017, analyzed and made recommendations with respect to the U.S. banking system (the "Treasury Report"). In particular, the Treasury Report recommended several actions that would ease the requirements of the Dodd-Frank Act on community banks such as us, as described in greater detail below. While some of these actions may be implemented unilaterally by our regulators, others will require legislation in order to be put into effect.

On June 8, 2017, the U.S. House of Representatives passed the Financial CHOICE Act of 2017 (the "Financial CHOICE Act"), a bill that, if enacted into law, would repeal or modify key provisions of the Dodd-Frank Act, including elimination of the Volcker Rule, as defined below, and making the director of the CFPB, also defined below, subject to removal by the President. President Trump has indicated that he would sign the Financial CHOICE Act, but the U.S. Senate has yet to take up that bill. In May 2018, President Trump signed into law the Economic Growth Act, which impacted several of the provisions of the Dodd-Frank Act. The enactment of the Economic Growth Act provided certain regulatory relief to community banks, like us, with less than \$10 billion in total consolidated assets. This relief includes an exemption from the Volcker Rule and provides for federal banking regulators to simplify capital requirement rules for community banks.

We cannot predict how closely a final bill, if any, will resemble the Financial CHOICE Act passed by the House of Representatives in 2017. Similarly, it is too early for us to predict whether any other executive or congressional action will attempt to implement the recommendations of the Treasury Report as they pertain to the Dodd-Frank Act.

See Item 1A, Risk Factors, for a more extensive discussion of this topic.



**The Volcker Rule.** The Dodd-Frank Act prohibits banks and their affiliates from engaging in proprietary trading and from investing and sponsoring hedge funds and private equity funds. The statutory provision implementing these restrictions is commonly called the “Volcker Rule.” To implement the Volcker Rule, federal regulators issued final rules in December 2013 that were to become effective April 2014. The Federal Reserve subsequently issued an order extending the period that institutions have to conform their activities to the requirements of the Volcker Rule to July 21, 2015, and extended the compliance date for banks to conform their investments in certain “legacy covered funds” until July 21, 2016. These final rules exempt the Bank, as a bank with less than \$10 billion in total consolidated assets that does not engage in any covered activities other than trading in certain government, agency, state or municipal obligations, from any significant compliance obligations under the Volcker Rule; therefore, the Volcker Rule will not have a material effect on our business, financial condition and results of operations. Furthermore, the Economic Growth Act, signed into law in 2018, exempted this category of community banks from complying with the Volcker Rule. We cannot predict whether we may become subject to the Volcker Rule following additional legislative or regulatory action concerning community banks.

**Depository Institution Regulation.** The Bank is subject to regulation by the FDIC. This regulatory structure includes:

- Real estate lending standards, which provide guidelines concerning loan-to-value ratios for various types of real estate loans;
- Risk-based capital rules, including accounting for interest rate risk, concentration of credit risk and the risks posed by non-traditional activities;
- Rules requiring depository institutions to develop and implement internal procedures to evaluate and control credit and settlement exposure to their correspondent banks;
- Rules restricting types and amounts of equity investments; and
- Rules addressing various safety and soundness issues, including operations and managerial standards, standards for asset quality, earnings and compensation standards.

**Capital Requirements.** The Company and the Bank are each required to comply with applicable capital adequacy standards established by the Federal Reserve. The current risk-based capital standards applicable to the Company and the Bank, parts of which are currently in the process of being phased in, are based on the final capital framework for strengthening international capital standards, known as Basel III, of the Basel Committee.

Prior to January 1, 2015, the risk-based capital standards applicable to the Company and the Bank (the “General Risk-based Capital Rules”) were based on the 1988 Capital Accord, known as Basel I, of the Basel Committee. In July 2013, the federal bank regulators approved the final Basel III Rules implementing the Basel III framework as well as certain provisions of the Dodd-Frank Act. The Basel III Rules substantially revised the risk-based capital requirements applicable to BHCs and their depository institution subsidiaries, including the Company and the Bank, as compared to the General Risk-based Capital Rules. The Basel III Rules became effective for the Company and the Bank on January 1, 2015 (subject to a phase-in period for certain provisions).

The Basel III Rules, among other things, (i) introduce a new capital measure called CET1, which consists primarily of retained earnings and common stock, (ii) specify that Tier 1 capital consists of CET1 and “Additional Tier 1 capital” instruments, such as preferred stock and certain convertible securities, meeting certain revised requirements, (iii) define CET1 narrowly by requiring that most deductions/adjustments to regulatory capital measures be made to CET1 and not to the other components of capital, and (iv) expand the scope of the deductions/adjustments to capital as compared to existing regulations.

Under the Basel III Rules, the minimum capital ratios effective as of January 1, 2015 are:

- 4.5% CET1 to risk-weighted assets;
- 6.0% Tier 1 capital (that is, CET1 plus Additional Tier 1 capital) to risk-weighted assets; and
- 8.0% Total capital (that is, Tier 1 capital plus Tier 2 capital) to risk-weighted assets.

The Basel III Rules also introduce a new capital conservation buffer designed to absorb losses during periods of economic stress. The capital conservation buffer is an amount in addition to these minimum risk-based capital ratio requirements. The Basel III Rules also provide for a countercyclical capital buffer applicable only to certain covered institutions. We do not expect the countercyclical capital buffer to be applicable to the Company or the Bank. Banking institutions that do not hold capital above the required minimum levels, including the capital conservation buffer, will face constraints on dividends and compensation based on the amount of the shortfall.

The Basel III Rules became fully phased in effective January 1, 2019 and will require the Company and the Bank to maintain an additional capital conservation buffer of 2.5% of risk-weighted assets, effectively resulting in minimum ratios of (i) CET1 to risk-weighted assets of at least 7%, (ii) Tier 1 capital to risk-weighted assets of at least 8.5%, and (iii) Total capital to risk-weighted assets of at least 10.5%.

The Basel III Rules also provide for a number of deductions from and adjustments to CET1. These include, for example, the requirement that mortgage-servicing rights (“MSRs”), certain deferred tax assets and significant investments in non-consolidated financial entities be deducted from CET1 to the extent that any one such category exceeds 10% of CET1 or all such items, in the aggregate, exceed 15% of CET1.

Implementation of the deductions and other adjustments to CET1 began on January 1, 2015 and was phased in over a 4-year period (beginning at 40% on January 1, 2015 and an additional 20% per year thereafter). The implementation of the capital conservation buffer began on January 1, 2016 at the 0.625% level and was phased in over a 4-year period (increasing by that amount on each subsequent January 1, until it reached 2.5% on January 1, 2019).

The Basel III Rules prescribe a new standardized approach for risk weightings that expands the risk-weighting categories from the four Basel I-derived categories (0%, 20%, 50% and 100%) to a much larger and more risk-sensitive number of categories, depending on the nature of the assets, generally ranging from 0% for U.S. government and agency securities, to 600% for certain equity exposures, and resulting in higher risk weights for a variety of asset classes.

The Economic Growth Act provided for a potential exception from the Basel III Rules for community banks that maintain a “Community Bank Leverage Ratio” of at least 8.0% to 10.0%, to be determined based on final rulemaking from federal banking regulators. Until further action is taken to implement the provisions of the Economic Growth Act, we cannot predict whether or to what extent we will continue to be subject to the Basel III Rules in the future, including as of the final phase-in date of January 1, 2019.

**Leverage Requirements.** BHCs and banks are also required to comply with minimum leverage ratio requirements. These requirements provide for a minimum ratio of Tier 1 capital to total consolidated quarterly average assets (as defined for regulatory purposes), net of the loan loss reserve, goodwill and certain other intangible assets (the “leverage ratio”), of 4.0%.

**Liquidity Regulation.** During 2014, the U.S. banking agencies adopted final rules implementing one of the two new standards provided for in the Basel III liquidity framework - its liquidity coverage ratio (“LCR”), which is designed to ensure that a bank maintains an adequate level of unencumbered high quality liquid assets equal to the bank’s expected net cash outflows for a thirty-day time horizon under an acute liquidity stress scenario. The rules as adopted apply in their most comprehensive form only to advanced approaches bank holding companies and depository institution subsidiaries of such bank holding companies and, in a modified form, to banking organizations having \$50 billion or more in total consolidated assets. Accordingly, they do not apply to either the Company or the Bank. As a result, we do not manage our balance sheet to be compliant with these rules.

The Basel III framework also included a second standard, referred to as the net stable funding ratio (“NSFR”), which is designed to promote more medium-and long-term funding of the assets and activities of banks over a one-year time horizon. Although the Basel Committee finalized its formulation of the NSFR in 2014, the U.S. banking agencies have not yet proposed an NSFR for application to U.S. banking organizations or addressed the scope of banking organizations to which it will apply. The Basel Committee’s final NSFR document states that the NSFR applies to internationally active banks, as did its final LCR document as to that ratio.

**Prompt Corrective Action.** The Federal Deposit Insurance Act, as amended (“FDIA”), requires, among other things, the federal banking agencies to take “prompt corrective action” in respect of depository institutions that do not meet minimum capital requirements. The FDIA establishes five capital categories for FDIC-insured banks: well capitalized, adequately capitalized, under-capitalized, significantly under-capitalized and critically under-capitalized. Under rules in effect through December 31, 2014, a depository institution is deemed to be “well-capitalized” if the institution has a total risk-based capital ratio of 10.0% or greater, a Tier 1 risk-based capital ratio of 6.0% or greater, and a leverage ratio of 5.0% or greater, and the institution is not subject to an order, written agreement, capital directive or prompt corrective action directive to meet and maintain a specific level for any capital measure. As of January 1, 2015, the standards for “well-capitalized” status under prompt corrective action regulations changed by, among other things, introducing a CET 1 ratio requirement of 6.5% and increasing the Tier 1 risk-based capital ratio requirement from 6.0% to 8.0%. The total risk-based capital ratio and Tier 1 leverage ratio requirements remain at 10.0% and 5.0%, respectively.

The FDIA imposes progressively more restrictive constraints on operations, management and capital distributions, depending on the capital category in which an institution is classified. The current capital rule established by the federal bank regulators, discussed above under “Capital Requirements,” amend the prompt corrective action requirements in certain respects, including adding a CET1 risk-based capital ratio as one of the metrics (with a minimum 6.5% ratio for well-capitalized status) and increasing the Tier 1 risk-based capital ratio required for each of the five capital categories, including an increase from 6.0% to 8.0% to be well-capitalized.

For further information regarding the capital ratios and leverage ratio of the Company and the Bank see the section titled “Capital Resources” in Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” included in this Annual Report on Form 10-K. The current requirements and the actual levels for the Company and the Bank are detailed in Note 12, Regulatory Matters, of the notes to consolidated financial statements, included in this Annual Report on Form 10-K.

**Dividends.** The FRB policy is that a bank holding company should pay cash dividends only to the extent that its net income for the past year is sufficient to cover both the cash dividends and a rate of earnings retention that is consistent with the holding company’s capital needs, asset quality and overall financial condition, and that it is inappropriate for a bank holding company experiencing serious financial problems to borrow funds to pay dividends. Furthermore, a bank that is classified under the prompt corrective action regulations as “undercapitalized” will be prohibited from paying any dividends.

The primary source of cash for dividends we pay is the dividends we receive from the Bank. The Bank is subject to various regulatory policies and requirements relating to the payment of dividends, including requirements to maintain capital above regulatory minimums. Approval of the New York State Department of Financial Services (the “NY DFS”) is required prior to paying a dividend if the dividend declared by the Bank exceeds the sum of the Bank’s net profits for that year and its retained net profits for the preceding two calendar years. At January 1, 2019, the Bank could declare dividends of \$49.7 million from retained net profits of the preceding two years. The Bank declared dividends of \$20.0 million in 2018 and \$12.0 million in 2017.

**Federal Deposit Insurance Assessments.** The Bank is a member of the FDIC and pays an insurance premium to the FDIC based upon its assessable assets on a quarterly basis. Deposits are insured up to applicable limits by the FDIC and such insurance is backed by the full faith and credit of the United States Government.

Under the Dodd-Frank Act, a permanent increase in deposit insurance was authorized to \$250,000. The coverage limit is per depositor, per insured depository institution for each account ownership category.

The Dodd-Frank Act also set a new minimum Deposit Insurance Fund (“DIF”) reserve ratio at 1.35% of estimated insured deposits. The FDIC is required to attain this ratio by September 30, 2020. The Dodd-Frank Act also required the FDIC to define the deposit insurance assessment base for an insured depository institution as an amount equal to the institution’s average consolidated total assets during the assessment period minus average tangible equity. Premiums for the Bank are now calculated based upon the average balance of total assets minus average tangible equity as of the close of business for each day during the calendar quarter. As of September 30, 2018, the FDIC had exceeded the minimum reserve ratio of 1.35%. Certain institutions will receive credits for the portion of their regular assessments that contributed to growth in the reserve ratio to 1.35%, which will apply to reduce regular assessments for quarters when the reserve ratio is at least 1.38%. In January 2019, the FDIC notified the Bank that it would be eligible for these credits to offset future deposit insurance assessments.

The FDIC has the flexibility to adopt actual rates that are higher or lower than the total base assessment rates adopted without notice and comment, if certain conditions are met.

DIF-insured institutions pay a Financing Corporation (“FICO”) assessment in order to fund the interest on bonds issued in the 1980s in connection with the failures in the thrift industry. For the fourth quarter of 2018, the FICO assessment was equal to 0.14 basis points (annualized) computed on assets as required by the Dodd-Frank Act. These assessments will continue until the bonds mature in 2019.

The FDIC is authorized to conduct examinations of and require reporting by FDIC-insured institutions. It is also authorized to terminate a depository bank’s deposit insurance upon a finding by the FDIC that the bank’s financial condition is unsafe or unsound or that the institution has engaged in unsafe or unsound practices or has violated any applicable rule, regulation, order or condition enacted or imposed by the bank’s regulatory agency. The termination of deposit insurance for the Bank would have a material adverse effect on our earnings, operations and financial condition.

**Consumer Laws and Regulations.** In addition to the laws and regulations discussed herein, the Bank is also subject to certain consumer federal and state laws and regulations that are designed to protect consumers in transactions with banks. While the list set forth herein is not exhaustive, these laws and regulations include, among others, the Fair Credit Reporting Act, the Truth in Lending Act, the Truth in Savings Act, the Electronic Funds Transfer Act, the Expedited Funds Availability Act, the Equal Credit Opportunity Act, the Fair Housing Act, the Home Mortgage Disclosure Act, the Real Estate Settlement Procedures Act, the Fair Debt Collection Practices Act, the Service Members Civil Relief Act and these laws’ respective state-law counterparts, as well as state usury laws and laws regarding unfair and deceptive acts and practices. These and other federal and state laws, among other things, require disclosures of the cost of credit and terms of deposit accounts, provide substantive consumer rights, prohibit discrimination in credit transactions, regulate the use of credit report information, provide financial privacy protections, prohibit unfair, deceptive and abusive practices, restrict the Company’s ability to raise interest rates and subject the Company to substantial regulatory oversight. Violations of applicable consumer protection laws can result in significant potential liability from litigation brought by customers, including actual damages, restitution and attorneys’ fees. Federal and state bank regulators, federal law enforcement agencies, state attorneys general and state and local consumer protection agencies may also seek to enforce consumer protection requirements and obtain these and other remedies, including regulatory sanctions, customer rescission rights, fines and civil money penalties. Failure to comply with consumer protection requirements may also result in our failure to obtain any required bank regulatory approval for merger or acquisition transactions the Company may wish to pursue or our prohibition from engaging in such transactions even if approval is not required.

The Dodd-Frank Act centralized responsibility for consumer financial protection by creating the Consumer Financial Protection Bureau (“CFPB”), and giving it responsibility for implementing, examining and enforcing compliance with federal consumer protection laws. The CFPB focuses on:

- Risks to consumers and compliance with the federal consumer financial laws, when it evaluates the policies and practices of a financial institution;
- The markets in which firms operate and risks to consumers posed by activities in those markets;
- Depository institutions that offer a wide variety of consumer financial products and services; depository institutions with a more specialized focus; and
- Non-depository companies that offer one or more consumer financial products or services.

The CFPB has broad rulemaking authority for a wide range of consumer financial laws that apply to all banks, including, among other things, the authority to prohibit “unfair, deceptive or abusive” acts and practices. Abusive acts or practices are defined as those that materially interfere with a consumer’s ability to understand a term or condition of a consumer financial product or service or take unreasonable advantage of a consumer’s (i) lack of financial savvy, (ii) inability to protect himself in the selection or use of consumer financial products or services, or (iii) reasonable reliance on a covered entity to act in the consumer’s interests. The CFPB can issue cease-and-desist orders against banks and other entities that violate consumer financial laws. The CFPB may also institute a civil action against an entity in violation of federal consumer financial law in order to impose a civil penalty or injunction. The CFPB has examination and enforcement authority over all banks with more than \$10 billion in assets, as well as their affiliates.

Neither the recommendations of the Treasury Report nor the Financial CHOICE Act provide for the abolishment of the CFPB; both, however, call for the director of the CFPB to be subject to removal by the President and for repeal of the CFPB’s authority to perform examinations. We cannot predict whether or how the CFPB will be impacted by either pending or future legislation or by possible future executive action.

Banking regulators take into account compliance with consumer protection laws when considering approval of a proposed transaction.

**Community Reinvestment Act.** Pursuant to the Community Reinvestment Act (the “CRA”), under federal and New York State law, the Bank is obligated, consistent with safe and sound banking practices, to help meet the credit needs of its entire community, including low and moderate-income neighborhoods. The FRB of New York and NY DFS periodically assess the Bank’s record of performance under the CRA and issue one of the following ratings: “Outstanding,” “Satisfactory,” “Needs to Improve,” or “Substantial Noncompliance.”

The most recently completed evaluation of the Bank’s performance under the CRA was conducted by the FRB of New York for the time period January 2011 through September 2013 and was disclosed to us in March 2018. This performance evaluation resulted in an overall rating by the FRB of New York of “Needs to Improve.” In reaching this rating the FRB of New York considered several factors, including the geographic distribution of loans we made from January 2011 through September 2013 in the Buffalo and Rochester metropolitan areas, the accessibility of our retail delivery systems and our level of compliance during the time period with the Equal Credit Opportunity Act and the Fair Housing Act. We believe the Bank has made significant improvements in these areas since September 2013 and we are firmly committed to fair and responsible banking and helping to meet the credit needs of all segments of the communities that we serve.

The FRB of New York’s evaluation of the Bank’s January 2011 through September 2013 CRA performance may subject the Bank to enhanced scrutiny in any application it files with the FRB of New York or the NY DFS with respect to, among other things, the establishment of new branches, the expansion or relocation of existing branches, or the acquisition by the Bank of another depository institution. While the approval or denial of such an application is typically a facts and circumstances based determination, a less than satisfactory CRA rating would be one of the factors our regulators will consider in their review.

The NY DFS is assessing our CRA performance since 2012 and has not yet completed its evaluation. The last CRA evaluation completed by the NY DFS was in 2011 and resulted in the Bank being rated as “Outstanding.”

**Privacy Rules.** Federal banking regulators, as required under the Gramm-Leach-Bliley Act, have adopted rules limiting the ability of banks and other financial institutions to disclose nonpublic information about consumers to non-affiliated third parties. The rules require disclosure of privacy policies to consumers and, in some circumstances, allow consumers to prevent disclosure of certain personal information to non-affiliated third parties. The privacy provisions of the Gramm-Leach-Bliley Act affect how consumer information is transmitted through diversified financial services companies and conveyed to outside vendors.

In February 2017, the NY DFS issued a final rule, which became effective on March 1, 2017, requiring New York State-chartered or licensed banks regulated by the NY DFS, such as us, to adopt broad cybersecurity protections. Specifically, we are now required to establish a program designed to ensure the safety of our information systems, adopt a written cybersecurity policy, designate an information security officer, and comply with NY DFS certification and reporting requirements. Compliance with this rule is subject to four phase-in dates between September 2017 and March 2019.

**Anti-Money Laundering and the USA Patriot Act.** A major focus of governmental policy on financial institutions in recent years has been aimed at combating money laundering and terrorist financing. The USA PATRIOT Act of 2001, or the USA Patriot Act, substantially broadened the scope of United States anti-money laundering laws and regulations by imposing significant new compliance and due diligence obligations, creating new crimes and penalties and expanding the extra-territorial jurisdiction of the United States. Financial institutions are also prohibited from entering into specified financial transactions and account relationships and must use enhanced due diligence procedures in their dealings with certain types of high-risk customers and implement a written customer identification program. Financial institutions must take certain steps to assist government agencies in detecting and preventing money laundering and report certain types of suspicious transactions. Regulatory authorities routinely examine financial institutions for compliance with these obligations, and for the failure of a financial institution to maintain and implement adequate programs to combat money laundering and terrorist financing, or to comply with all of the relevant laws or regulations, could have serious legal and reputational consequences for the institution, including causing applicable bank regulatory authorities not to approve merger or acquisition transactions when regulatory approval is required or to prohibit such transactions even if approval is not required. Regulatory authorities have imposed cease and desist orders and civil money penalties against institutions found to be violating these obligations.

**Interstate Branching.** Pursuant to the Dodd-Frank Act, national and state-chartered banks may open an initial branch in a state other than its home state (e.g., a host state) by establishing a de novo branch at any location in such host state at which a bank chartered in such host state could establish a branch. Applications to establish such branches must still be filed with the appropriate primary federal regulator. It is too early to predict whether President Trump's Executive Order or any subsequent presidential or congressional action will result in any change to a bank's ability to establish a de novo branch in a host state.

**Transactions with Affiliates.** FII, FSB, Five Star REIT, SDN, Courier Capital and HNP Capital are affiliates within the meaning of the Federal Reserve Act. The Federal Reserve Act imposes limitations on a bank with respect to extensions of credit to, investments in, and certain other transactions with, its parent bank holding company and the holding company's other subsidiaries. Furthermore, bank loans and extensions of credit to affiliates also are subject to various collateral requirements.

Various governmental requirements, including Sections 23A and 23B of the Federal Reserve Act and the FRB's Regulation W, limit borrowings by FII and its nonbank subsidiaries from FSB, and also limit various other transactions between FII and its nonbank subsidiaries, on the one hand, and FSB, on the other. For example, Section 23A of the Federal Reserve Act limits the aggregate outstanding amount of any insured depository institution's loans and other "covered transactions" with any particular nonbank affiliate to no more than 10% of the institution's total capital and limits the aggregate outstanding amount of any insured depository institution's covered transactions with all of its nonbank affiliates to no more than 20% of its total capital. "Covered transactions" are defined by statute to include a loan or extension of credit, as well as a purchase of securities issued by an affiliate, a purchase of assets (unless otherwise exempted by the FRB) from the affiliate, the acceptance of securities issued by the affiliate as collateral for a loan, and the issuance of a guarantee, acceptance or letter of credit on behalf of an affiliate. Section 23A of the Federal Reserve Act also generally requires that an insured depository institution's loans to its nonbank affiliates be, at a minimum, 100% secured, and Section 23B of the Federal Reserve Act generally requires that an insured depository institution's transactions with its nonbank affiliates be on terms and under circumstances that are substantially the same or at least as favorable as those prevailing for comparable transactions with non-affiliates. The Dodd-Frank Act significantly expanded the coverage and scope of the limitations on affiliate transactions within a banking organization. For example, commencing in July 2012, the Dodd-Frank Act applies the 10% of capital limit on covered transactions to financial subsidiaries and amends the definition of "covered transaction" to include (i) securities borrowing or lending transactions with an affiliate, and (ii) all derivatives transactions with an affiliate, to the extent that either causes a bank or its affiliate to have credit exposure to the securities borrowing/lending or derivative counterparty.

**Office of Foreign Assets Control Regulation.** The U.S. Treasury Department's Office of Foreign Assets Control, or OFAC, administers and enforces economic and trade sanctions against targeted foreign countries and regimes, under authority of various laws, including designated foreign countries, nationals and others. OFAC publishes lists of specially designated targets and countries. The Company is responsible for, among other things, blocking accounts of, and transactions with, such targets and countries, prohibiting unlicensed trade and financial transactions with them and reporting blocked transactions after their occurrence. Failure to comply with these sanctions could have serious legal and reputational consequences, including causing applicable bank regulatory authorities not to approve merger or acquisition transactions when regulatory approval is required or to prohibit such transactions even if approval is not required.

**Insurance Regulation.** SDN is required to be licensed or receive regulatory approval in nearly every state in which it does business. In addition, most jurisdictions require individuals who engage in brokerage and certain other insurance service activities to be personally licensed. These licensing laws and regulations vary from jurisdiction to jurisdiction. In most jurisdictions, licensing laws and regulations generally grant broad discretion to supervisory authorities to adopt and amend regulations and to supervise regulated activities.

**Investment Advisory Regulation.** Courier Capital and HNP Capital are providers of investment consulting and financial planning services and, as such, are each considered an “investment adviser” under the U.S. Investment Advisers Act of 1940, as amended (the “Advisers Act”). An investment adviser is any person or entity that provides advice to others, or that issues reports or analyses, regarding securities for compensation. While a BHC is generally excluded from regulation under the Advisers Act, the SEC has stated that this exclusion does not apply to investment adviser subsidiaries of BHCs, such as Courier Capital and HNP Capital. Since Courier Capital and HNP Capital each have over \$100 million in assets under management they are individually considered a “large adviser,” which requires registration with the SEC by filing Form ADV and updating it at least once each year, and more frequently under certain specified circumstances. This registration covers Courier Capital or HNP Capital and its employees as well as other persons under their control and supervision, such as independent contractors, provided that their activities are undertaken on behalf of Courier Capital or HNP Capital.

In addition to these registration requirements, the Advisers Act contains numerous other provisions that impose obligations on investment advisers. For example, Section 206 includes anti-fraud provisions that courts have interpreted as establishing fiduciary duties extending to all services undertaken on behalf of the client. These duties include, but are not limited to, the disclosure of all material facts to clients, providing only suitable investment advice, and seeking best price execution of trades. Section 206 also has specific rules relating to, among other things, advertising, safeguarding client assets, the engagement of third-parties, the duty to supervise persons acting on the investment adviser’s behalf, and the establishment of an effective internal compliance program and a code of ethics.

Courier Capital and HNP Capital are subject to each of these obligations and, as applicable, restrictions, and are also subject to examination by the SEC’s Office of Compliance, Investigations, and Examinations to assess their overall compliance with the Advisers Act and the effectiveness of their internal controls.

Prior to our acquisition of Courier Capital in January 2016 and HNP Capital in June 2018, the Bank had provided investment advisory and broker-dealer services to its customers through its subsidiary Five Star Investment Services, Inc. Commencing in October 2013, the Bank entered into a partnership with LPL Financial, one of the nation’s largest independent financial services companies (“LPL”), to provide investment advisory and broker-dealer services to its customers through LPL. This partnership continues and the Bank employs wealth advisors, who are licensed by LPL, to provide investment advisory and broker-dealer services to the Bank’s customers. LPL is an investment adviser registered under the Advisers Act and is subject to its provisions.

**Incentive Compensation.** Our compensation practices are subject to oversight by the Federal Reserve. In June 2010, the Federal banking agencies issued comprehensive final guidance on incentive compensation policies intended to ensure that the incentive compensation policies of banking organizations do not undermine the safety and soundness of such organizations by encouraging excessive risk-taking. The guidance, which covers all employees that have the ability to materially affect the risk profile of an organization, either individually or as part of a group, is based upon the key principles that a banking organization’s incentive compensation arrangements should (i) provide incentives that do not encourage risk-taking beyond the organization’s ability to effectively identify and manage risks, (ii) be compatible with effective internal controls and risk management, and (iii) be supported by strong corporate governance, including active and effective oversight by the organization’s board of directors.

The Dodd-Frank Act requires the federal banking agencies to establish joint regulations or guidelines prohibiting incentive-based payment arrangements at specified regulated entities having at least \$1 billion in total consolidated assets (which would include the Company and the Bank) that encourage inappropriate risks by providing an executive officer, employee, director or principal shareholder with excessive compensation, fees or benefits or that could lead to material financial loss to the entity. In addition, the agencies must establish regulations or guidelines requiring enhanced disclosure to regulators of incentive-based compensation arrangements. In May 2016, six federal agencies, including the FRB, the FDIC and the SEC, invited public comments on a proposed rule to accomplish this mandate; no final rule has since been issued, however, and it is uncertain at this time whether the agencies intend to further pursue the rule for the foreseeable future.

The FRB will review, as part of the regular, risk-focused examination process, the incentive compensation arrangements of banking organizations, such as the Company, that are not “large, complex banking organizations.” These reviews will be tailored to each organization based on the scope and complexity of the organization’s activities and the prevalence of incentive compensation arrangements. The findings of the supervisory initiatives will be included in reports of examination. Deficiencies will be incorporated into the organization’s supervisory ratings, which can affect the organization’s ability to make acquisitions and take other actions. Enforcement actions may be taken against a banking organization if its incentive compensation arrangements, or related risk-management control or governance processes, pose a risk to the organization’s safety and soundness and the organization is not taking prompt and effective measures to correct the deficiencies.

**Other Future Legislation and Changes in Regulations.** In addition to the specific proposals described above, from time to time, various legislative and regulatory initiatives are introduced in Congress and state legislatures, as well as by regulatory agencies. Such initiatives may include proposals to expand or contract the powers of bank holding companies and depository institutions or proposals to substantially change the financial institution regulatory system. Such legislation could change banking statutes and/or our operating environment in substantial and unpredictable ways. If enacted, such legislation could increase or decrease the cost of doing business, limit or expand permissible activities or affect the competitive balance among banks, savings associations, credit unions, and other financial institutions. We cannot predict whether any such legislation will be enacted, and, if enacted, the effect that it, or any implementing regulations, would have on our financial condition or results of operations. A change in statutes, regulations or regulatory policies applicable to us or our subsidiaries could have a material effect on our business.

### **Impact of Inflation and Changing Prices**

Our financial statements included herein have been prepared in accordance with GAAP, which requires us to measure financial position and operating results principally using historic dollars. Changes in the relative value of money due to inflation or recession are generally not considered. The primary effect of inflation on our operations is reflected in increased operating costs. We believe changes in interest rates affect the financial condition of a financial institution to a far greater degree than changes in the inflation rate. While interest rates are generally influenced by changes in the inflation rate, they do not necessarily change at the same rate or in the same magnitude. Interest rates are sensitive to many factors that are beyond our control, including changes in the expected rate of inflation, general and local economic conditions and the monetary and fiscal policies of the United States government, its agencies and various other governmental regulatory authorities.

### **Regulatory and Economic Policies**

Our business and earnings are affected by general and local economic conditions and by the monetary and fiscal policies of the U.S. government, its agencies and various other governmental regulatory authorities. The FRB regulates the supply of money in order to influence general economic conditions. Among the instruments of monetary policy available to the FRB are (i) conducting open market operations in U.S. government obligations, (ii) changing the discount rate on financial institution borrowings, (iii) imposing or changing reserve requirements against financial institution deposits, and (iv) restricting certain borrowings and imposing or changing reserve requirements against certain borrowings by financial institutions and their affiliates. These methods are used in varying degrees and combinations to directly affect the availability of bank loans and deposits, as well as the interest rates charged on loans and paid on deposits. For that reason, the policies of the FRB could have a material effect on our earnings.

On December 22, 2017, the Tax Cuts and Jobs Act (the “TCJ Act”) was signed into law which, among other items, reduced the federal statutory corporate tax rate from 35 percent to 21 percent, effective January 1, 2018.

### **EMPLOYEES**

At December 31, 2018, we had 725 employees, none of whom are subject to a collective bargaining agreement. Management believes our overall relations with employees are good.

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## ITEM 1A. RISK FACTORS

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An investment in our common stock is subject to risks inherent to our business. The material risks and uncertainties that management believes could affect us are described below. Before making an investment decision, you should carefully consider the risks and uncertainties described below, together with all of the other information included or incorporated by reference herein. This Annual Report on Form 10-K is qualified in its entirety by these risk factors. Further, to the extent that any of the information contained in this Annual Report on Form 10-K constitutes forward-looking statements, the risk factors set forth below also are cautionary statements identifying important factors that could cause our actual results to differ materially from those expressed in any forward-looking statements made by or on behalf of us.

If any of the following risks occur, our financial condition and results of operations could be materially and adversely affected. If this were to happen, the value of our common stock could decline significantly, and you could lose all or part of your investment.

### **If we experience greater credit losses than anticipated, earnings may be adversely impacted.**

As a lender, we are exposed to the risk that customers will be unable to repay their loans according to their terms and that any collateral securing the payment of their loans may not be sufficient to assure repayment. Credit losses are inherent in the business of making loans and could have a material adverse impact on our results of operations.

We make various assumptions and judgments about the collectability of our loan portfolio, including the creditworthiness of our borrowers and the value of the real estate and other assets serving as collateral, and we provide an allowance for estimated loan losses based on a number of factors. We believe that the allowance for loan losses is adequate. However, if our assumptions or judgments are wrong, the allowance for loan losses may not be sufficient to cover the actual credit losses. We may have to increase the allowance in the future in response to the request of one of our primary banking regulators, to adjust for changing conditions and assumptions, or as a result of any deterioration in the quality of our loan portfolio. The actual amount of future provisions for credit losses may vary from the amount of past provisions.

### **Our tax strategies and the value of our deferred tax assets and liabilities could adversely affect our operating results and regulatory capital ratios.**

Our tax strategies are dependent upon our ability to generate taxable income in future periods. Our tax strategies will be less effective in the event we fail to generate taxable income. Our deferred tax assets are subject to an evaluation of whether it is more likely than not that they will be realized for financial statement purposes. In making this determination, we consider all positive and negative evidence available including the impact of recent operating results, reversals of existing taxable temporary differences, tax planning strategies and projected earnings within the statutory tax loss carryover period. If we were to conclude that a significant portion of our deferred tax assets were not more likely than not to be realized, the required valuation allowance could adversely affect our financial position, results of operations and regulatory capital ratios. In addition, the value of our deferred tax assets could be adversely affected by a change in statutory tax rates.

### **Geographic concentration may unfavorably impact our operations.**

Substantially all of our operations are concentrated in the Western and Central New York region. As a result of this geographic concentration, our results depend largely on economic conditions in these and surrounding areas. Deterioration in economic conditions in our market could:

- increase loan delinquencies;
- increase problem assets and foreclosures;
- increase claims and lawsuits;
- decrease the demand for our products and services; and
- decrease the value of collateral for loans, especially real estate, reducing customers' borrowing power, the value of assets associated with non-performing loans and collateral coverage.

Generally, we make loans to small to mid-sized businesses whose success depends on the regional economy. These businesses generally have fewer financial resources in terms of capital or borrowing capacity than larger entities. Adverse economic and business conditions in our market areas could reduce our growth rate, affect our borrowers' ability to repay their loans and, consequently, adversely affect our business, financial condition and performance. For example, we place substantial reliance on real estate as collateral for our loan portfolio. A sharp downturn in real estate values in our market area could leave many of these loans inadequately collateralized. If we are required to liquidate the collateral securing a loan to satisfy the debt during a period of reduced real estate values, the impact on our results of operations could be materially adverse.



**We depend on the accuracy and completeness of information about or from customers and counterparties.**

In deciding whether to extend credit or enter into other transactions, we may rely on information furnished by or on behalf of customers and counterparties, including financial statements, credit reports, and other financial information. We may also rely on representations of those customers, counterparties, or other third parties, such as independent auditors, as to the accuracy and completeness of that information. Reliance on inaccurate or misleading financial statements, credit reports, or other financial information could cause us to enter into unfavorable transactions, which could have a material adverse effect on our financial condition and results of operations.

**Our insurance brokerage subsidiary is subject to risk related to the insurance industry.**

SDN derives the bulk of its revenue from commissions and fees earned from brokerage services. SDN does not determine the insurance premiums on which its commissions are based. Insurance premiums are cyclical in nature and may vary widely based on market conditions. As a result, insurance brokerage revenues and profitability can be volatile. As insurance companies outsource the production of premium revenue to non-affiliated brokers or agents such as SDN, those insurance companies may seek to further minimize their expenses by reducing the commission rates payable to insurance agents or brokers, which could adversely affect SDN's revenues. In addition, there have been and may continue to be various trends in the insurance industry toward alternative insurance markets including, among other things, increased use of self-insurance, captives, and risk retention groups. While SDN has been able to participate in certain of these activities and earn fees for such services, there can be no assurance that we will realize revenues and profitability as favorable as those realized from SDN's traditional brokerage activities.

**Our investment advisory and wealth management operations are subject to risks related to the regulation of the financial services industry and market volatility.**

The financial services industry is subject to extensive regulation at the federal and state levels. It is very difficult to predict the future impact of the legislative and regulatory requirements affecting our business. The securities laws and other laws that govern the activities of our registered investment advisor are complex and subject to change. The activities of our investment advisory and wealth management operations are subject primarily to provisions of the Advisers Act and the Employee Retirement Income Act of 1940, as amended ("ERISA"). We are a fiduciary under ERISA. Our investment advisory services are also subject to state laws including anti-fraud laws and regulations. Any claim of noncompliance, regardless of merit or ultimate outcome, could subject us to investigation by the SEC or other regulatory authorities. Our compliance processes may not be sufficient to prevent assertions that we failed to comply with any applicable law, rule or regulation. If our investment advisory and wealth management operations are subject to investigation by the SEC or other regulatory authorities or if litigation is brought by clients based on our failure to comply with applicable regulations, our results of operations could be materially adversely affected.

In addition, the majority of our investment advisory revenue is from fees based on the percentage of assets under management. The value of the assets under management is determined, in part, by market conditions that can be volatile. As a result, investment advisory revenues and profitability can fluctuate with market conditions.

**We may be unable to successfully implement our growth strategies, including the integration and successful management of newly-acquired businesses.**

Our current growth strategy is multi-faceted. We seek to expand our branch network into nearby areas, make strategic acquisitions of loans, portfolios, other regional banks and non-banking firms whose businesses we feel may be complementary with ours, and to continue to organically grow our core deposits. Any failure by us to effectively implement any one or more of these growth strategies could have several negative effects, including a possible decline in the size or the quality, or both, of our loan portfolio or a decrease in profitability caused by an increase in operating expenses.

We hope to continue an active merger and acquisition strategy. However, even if we use our common stock as the predominant form of consideration, we may need to raise capital to negotiate a transaction on terms acceptable to us and there can be no assurance that we will be able to raise a sufficient amount of capital to enable us to complete an acquisition. It is also possible that even with adequate capital we may still be unable to complete an acquisition on favorable terms, causing us to miss opportunities to increase our earnings and expand or diversify our operations.

Our growth strategy is also dependent upon the successful integration of new businesses, including Courier Capital and HNP Capital, as well as any future acquisitions, into our existing operations. While our senior management team has had extensive experience in acquisitions and post-acquisition integration, there is no guarantee that our current or future integration efforts will be successful, and if our senior management is forced to spend a disproportionate amount of time on integrating recently-acquired businesses, it may distract their attention from operating our business or pursuing other growth opportunities.

**We are subject to environmental liability risk associated with our lending activities.**

A significant portion of our loan portfolio is secured by real property. During the ordinary course of business, we may foreclose on and take title to properties securing certain loans. There is a risk that hazardous or toxic substances could be found on properties we have foreclosed upon. If hazardous or toxic substances are found, we may be liable for remediation costs, as well as for personal injury and property damage regardless of whether we knew, had reason to know of, or caused the release of such substance. Environmental laws may require us to incur substantial expenses and may materially reduce the affected property's value or limit our ability to use or sell the affected property. In addition, future laws or more stringent interpretations or enforcement policies with respect to existing laws may increase our exposure to environmental liability. The remediation costs and any other financial liabilities associated with an environmental hazard could have a material adverse effect on our financial condition and results of operations.

**Our commercial business and mortgage loans increase our exposure to credit risks.**

At December 31, 2018, our portfolio of commercial business and mortgage loans totaled \$1,516.1 million, or 49.1% of total loans. We plan to continue to emphasize the origination of these types of loans, which generally expose us to a greater risk of nonpayment and loss than residential real estate or consumer loans because repayment of such loans often depends on the successful operations and income stream of the borrowers. Additionally, such loans typically involve larger loan balances to single borrowers or groups of related borrowers compared to consumer loans or residential real estate loans. A sudden downturn in the economy could result in borrowers being unable to repay their loans, thus exposing us to increased credit risk.

**Our indirect and consumer lending involves risk elements in addition to normal credit risk.**

A portion of our current lending involves the purchase of consumer automobile installment sales contracts from automobile dealers located in Western, Central and the Capital District of New York, and Northern and Central Pennsylvania. These loans are for the purchase of new or used automobiles. We serve customers that cover a range of creditworthiness, and the required terms and rates are reflective of those risk profiles. While these loans have higher yields than many of our other loans, such loans involve risk elements in addition to normal credit risk. Additional risk elements associated with indirect lending include the limited personal contact with the borrower as a result of indirect lending through non-bank channels, namely automobile dealers. While indirect automobile loans are secured, such loans are secured by depreciating assets and characterized by loan-to-value ratios that could result in us not recovering the full value of an outstanding loan upon default by the borrower. If the losses from our indirect loan portfolio are higher than anticipated, it could have a material adverse effect on our financial condition and results of operations.

Our consumer lending activities are subject to numerous consumer protection laws and regulations. In particular, the CFPB has broad rulemaking powers and supervisory authority over consumer financial products and services. Although the CFPB's supervisory role over our business is not yet certain due to the extended implementation period of the Dodd-Frank Act, rulemaking from the CFPB may increase our compliance costs and may subject us to the increased risk of claims from consumers. If we are unable to comply with enhanced regulatory requirements with respect to our consumer lending activities, our financial condition and results of operations may be adversely affected.

**Lack of seasoning in portions of our loan portfolio could increase risk of credit defaults in the future.**

As a result of our growth over the past several years, certain portions of our loan portfolio, such as the increased size of our commercial loan portfolio, are of relatively recent origin. Loans may not begin to show signs of credit deterioration or default until they have been outstanding for some period of time, a process referred to as "seasoning." As a result, a portfolio of older loans will usually behave more predictably than a newer portfolio. Because these portions of our portfolio are relatively new, the current level of delinquencies and defaults may not represent the level that may prevail as the portfolio becomes more seasoned. If delinquencies and defaults increase, we may be required to increase our provision for loan losses, which could have an adverse effect on our business, financial condition and results of operations.

**We accept deposits that do not have a fixed term and which may be withdrawn by the customer at any time for any reason.**

At December 31, 2018, we had \$2.35 billion of deposit liabilities that have no maturity and, therefore, may be withdrawn by the depositor at any time. These deposit liabilities include our checking, savings, and money market deposit accounts.

Market conditions may impact the competitive landscape for deposits in the banking industry. The unprecedented low rate environment and future actions the Federal Reserve may take may impact pricing and demand for deposits in the banking industry. The withdrawal of more deposits than we anticipate could have an adverse impact on our profitability as this source of funding, if not replaced by similar deposit funding, would need to be replaced with wholesale funding, the sale of interest-earning assets, or a combination of these two actions. The replacement of deposit funding with wholesale funding could cause our overall cost of funding to increase, which would reduce our net interest income. A loss of interest-earning assets could also reduce our net interest income.

**Any future FDIC insurance premium increases may adversely affect our earnings.**

The amount that is assessed by the FDIC for deposit insurance is set by the FDIC based on a variety of factors. These include the depositor insurance fund's reserve ratio, the Bank's assessment base, which is equal to average consolidated total assets minus average tangible equity, and various inputs into the FDIC's assessment rate calculation.

If there are financial institution failures, we may be required to pay higher FDIC premiums. Such increases of FDIC insurance premiums may adversely impact our earnings. See the section captioned "Supervision and Regulation" included in Part I, Item 1 "Business" for more information about FDIC insurance premiums.

**We are highly regulated, and any adverse regulatory action may result in additional costs, loss of business opportunities, and reputational damage.**

As described in the section captioned "Supervision and Regulation" included in Part I, Item 1, "Business," both our Banking and Non-Banking segments are subject to extensive supervision, regulation and examination. The various regulatory authorities with jurisdiction over us have significant latitude in addressing our compliance with applicable laws and regulations including, but not limited to, those governing consumer credit, fair lending, anti-money laundering, anti-terrorism, capital adequacy, asset quality and risk, management ability and performance, earnings, liquidity, and various other factors affecting us. As part of this regulatory structure, we are subject to policies and other guidance developed by the regulatory agencies with respect to, among other things, capital levels, the timing and amount of dividend payments, the classification of assets and the establishment of adequate loan loss reserves for regulatory purposes. Our regulators have broad discretion to impose restrictions and limitations on our operations if they determine, for any reason, that our operations are unsafe or unsound, fail to comply with applicable law or are otherwise inconsistent with laws and regulations or with the supervisory policies of these agencies.

This supervisory framework could materially impact the conduct, growth and profitability of our operations. Any failure on our part to comply with current laws, regulations, other regulatory requirements or safe and sound banking, insurance, or investment advisory practices or concerns about our financial condition, or any related regulatory sanctions or adverse actions against us, could increase our costs or restrict our ability to expand our business and result in damage to our reputation.

In March 2018, we were notified by the FRB of New York that its most recent evaluation of the Bank's CRA performance for the period January 2011 through September 2013, resulted in an overall rating of "Needs to Improve." This rating may subject the Bank to enhanced scrutiny in any application for business expansion it files with the Federal Reserve or the NY DFS, which may result in a delay in approving or the denial of such application. In addition, the publication of the "Needs to Improve" rating may damage our reputation, making it more difficult for us to achieve our business goals and objectives, particularly in the Buffalo and Rochester metropolitan areas.

**We make certain assumptions and estimates in preparing our financial statements that may prove to be incorrect, which could significantly impact our results of operations, cash flows and financial condition, and we are subject to new or changing accounting rules and interpretations, and the failure by us to correctly interpret or apply these evolving rules and interpretations could have a material adverse effect.**

Accounting principles generally accepted in the United States require us to use certain assumptions and estimates in preparing our financial statements, including in determining credit loss reserves and reserves related to litigation, among other items. Certain of our financial instruments, including available-for-sale securities and certain loans, require a determination of their fair value in order to prepare our financial statements. Where quoted market prices are not available, we may make fair value determinations based on internally developed models or other means, which ultimately rely to some degree on management judgment. Some of these and other assets and liabilities may have no direct observable price levels, making their valuation particularly subjective, as they are based on significant estimation and judgment. In addition, sudden illiquidity in markets or declines in prices of certain loans and securities may make it more difficult to value certain balance sheet items, which may lead to the possibility that such valuations will be subject to further change or adjustment. If assumptions or estimates underlying our financial statements are incorrect, we may experience material losses that would impact our results of operations, cash flows and financial condition.

As indicated in Note 1, Summary of Significant Accounting Policies - Recent Accounting Pronouncements, to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K, the regulations, rules, standards, policies, and interpretations underlying GAAP are constantly evolving and may change significantly over time. If we fail to interpret any one or more of these GAAP provisions correctly, or if our methodology in applying them to our financial reporting or disclosures is at all flawed, our financial statements may contain inaccuracies that, if severe enough, could warrant a later restatement by us, which in turn could result in a material adverse event.

**Legal and regulatory proceedings and related matters could adversely affect us and the banking industry in general.**

We have been, and may in the future be, subject to various legal and regulatory proceedings. It is inherently difficult to assess the outcome of these matters, and there can be no assurance that we will prevail in any proceeding or litigation. Legal and regulatory matters of any degree of significance could result in substantial cost and diversion of our efforts, which by itself could have a material adverse effect on our financial condition and operating results. While, as disclosed in Part I, Item 3, "Legal Proceedings," our management does not believe that there are any pending or threatened proceedings against us, that, if determined adversely, would have a material adverse effect on our business, results of operations or financial condition, there can be no guarantee that such a proceeding will not arise in the near or long-term future. Further, adverse determinations in such matters could result in actions by our regulators that could materially adversely affect our business, financial condition or results of operations.

We establish reserves for legal claims when payments associated with the claims become probable and the costs can be reasonably estimated. We may still incur legal costs for a matter even if we have not established a reserve. In addition, due to the inherent subjectivity of the assessments and unpredictability of the outcome of legal proceedings, the actual cost of resolving a legal claim may be substantially higher than any amounts reserved for that matter. The ultimate resolution of a pending legal proceeding, depending on the remedy sought and granted, could adversely affect our results of operations and financial condition.

**A breach in security of our or third party information systems, including the occurrence of a cyber incident or a deficiency in cybersecurity, or a failure by us to comply with enhanced New York State cybersecurity regulations, may subject us to liability, result in a loss of customer business or damage our brand image.**

We rely heavily on communications, information systems (both internal and provided by third parties) and the internet to conduct our business. Our business depends on our ability to process and monitor a large volume of daily transactions in compliance with legal, regulatory and internal standards and specifications. In addition, a significant portion of our operations relies heavily on the secure processing, storage and transmission of personal and confidential information of our customers and clients. These risks may increase in the future as our customers continue to adapt to mobile payment and other internet-based product offerings and we expand the availability of web-based products and applications.

In addition, several U.S. financial institutions have experienced significant distributed denial-of-service attacks, some of which involved sophisticated and targeted attacks intended to disable or degrade service or sabotage systems. Other potential attacks have attempted to obtain unauthorized access to confidential information or destroy data, often through the introduction of computer viruses or malware, cyber-attacks and other means. To date, none of these types of attacks have had a material effect on our business or operations. Such security attacks can originate from a wide variety of sources, including persons who are involved with organized crime or who may be linked to terrorist organizations or hostile foreign governments. Those same parties may also attempt to fraudulently induce employees, customers or other users of our systems to disclose sensitive information in order to gain access to our data or that of our customers or clients. We are also subject to the risk that our employees may intercept and transmit unauthorized confidential or proprietary information. An interception, misuse or mishandling of personal, confidential or proprietary information being sent to or received from a customer or third party could result in legal liability, remediation costs, regulatory action and reputational harm, any of which could adversely affect our results of operations and financial condition.

As of March 1, 2017, we were required to comply with new cybersecurity regulations promulgated by the NY DFS that are being phased in between September 2017 and March 2019. Any failure by us to timely and successfully implement some or all of these regulations, which mandate, among other things, the creation of a new cybersecurity program, a written policy, the appointment of an information security officer and certification by the NY DFS, could also result in regulatory sanctions, public disclosure and reputational damage even if we do not experience a significant cybersecurity breach.

**We face competition in staying current with technological changes and banking alternatives to compete and meet customer demands.**

The financial services market, including banking services, faces rapid changes with frequent introductions of new technology-driven products and services. Our future success may depend, in part, on our ability to use technology to provide products and services that provide convenience to customers and to create additional efficiencies in our operations. Some of our competitors have substantially greater resources to invest in technological improvements than we currently have. We may not be able to effectively implement new technology-driven products and services or be successful in marketing these products and services to our customers. In addition, technology and other changes are allowing consumers to utilize alternative methods to complete financial transactions that have historically involved banks. For example, consumers can now maintain funds in brokerage accounts or mutual funds that would have historically been held as bank deposits. Consumers can also complete transactions such as paying bills and transferring funds directly without using a traditional bank as an intermediary. The process of eliminating banks as intermediaries could result in the loss of customer deposits, the related income generated from those deposits and additional fee income. We may not be able to effectively compete with these banking alternatives for consumer deposits. As a result, our ability to effectively compete to retain or acquire new business may be impaired, and our business, financial condition or results of operations, may be adversely affected.

**We rely on other companies to provide key components of our business infrastructure.**

Third party vendors provide key components of our business infrastructure such as internet connections, network access and core application processing. While we have selected these third party vendors carefully, we do not control their actions. Any problems caused by these third parties, including as a result of them not providing us their services for any reason or them performing their services poorly, could adversely affect our ability to deliver products and services to our customers or otherwise conduct our business efficiently and effectively. Replacing these third party vendors could also entail significant delay and expense.

Third parties perform significant operational services on our behalf. These third-party vendors are subject to similar risks as us relating to cybersecurity, breakdowns or failures of their own systems or employees. One or more of our vendors may experience a cybersecurity event or operational disruption and, if any such event does occur, it may not be adequately addressed, either operationally or financially, by the third-party vendor. Certain of our vendors may have limited indemnification obligations or may not have the financial capacity to satisfy their indemnification obligations. Financial or operational difficulties of a vendor could also impair our operations if those difficulties interfere with the vendor's ability to serve us. If a critical vendor is unable to meet our needs in a timely manner or if the services or products provided by such a vendor are terminated or otherwise delayed and if we are not able to develop alternative sources for these services and products quickly and cost-effectively, it could have a material adverse effect on our business. Federal banking regulators recently issued regulatory guidance on how banks select, engage and manage their outside vendors. These regulations may affect the circumstances and conditions under which we work with third parties and the cost of managing such relationships.

**We use financial models for business planning purposes that may not adequately predict future results.**

We use financial models to aid in planning for various purposes including our capital and liquidity needs, interest rate risk, potential charge-offs, reserves, and other purposes. The models used may not accurately account for all variables that could affect future results, may fail to predict outcomes accurately and/or may overstate or understate certain effects. As a result of these potential failures, we may not adequately prepare for future events and may suffer losses or other setbacks due to these failures.

**We may not be able to attract and retain skilled people.**

Our success depends, in large part, on our ability to attract and retain skilled people. Competition for highly talented people can be intense, and we may not be able to hire sufficiently skilled people or retain them. Further, the rural location of our principal executive offices and many of our bank branches make it challenging for us to attract skilled people to such locations. The unexpected loss of services of one or more of our key personnel could have a material adverse impact on our business because of their skills, knowledge of our markets, years of industry experience, and the difficulty of promptly finding qualified replacement personnel.

### **Acquisitions may disrupt our business and dilute shareholder value.**

We intend to continue to pursue a growth strategy for our business by expanding our branch network into communities within or adjacent to markets where we currently conduct business. We may consider acquisitions of loans or securities portfolios, lending or leasing firms, commercial and small business lenders, residential lenders, direct banks, banks or bank branches, wealth and investment management firms, securities brokerage firms, specialty finance or other financial services-related companies. We also intend to expand our non-banking subsidiaries, SDN, Courier Capital and HNP Capital, by acquiring smaller insurance agencies and wealth management firms in areas which complement our current footprint. We may be unsuccessful in expanding our non-banking subsidiaries through acquisition because of the growing interest in acquiring insurance brokers and wealth management firms, which could make it more difficult for us to identify appropriate targets and could make such acquisitions more expensive. Even if we are able to identify appropriate acquisition targets, we may not have sufficient capital to fund acquisitions or be able to execute transactions on favorable terms. If we are unable to expand our non-banking operations through smaller acquisitions, we may not be able to achieve all of the expected benefits of the SDN, Courier Capital and HNP Capital acquisitions, which could adversely affect our results of operations and financial condition.

Acquiring other banks, businesses, or branches involves potential adverse impact to our financial results and various other risks commonly associated with acquisitions, including, among other things:

- difficulty in estimating the value of the target company;
- payment of a premium over book and market values that may dilute our tangible book value and earnings per share in the short and long term;
- potential exposure to unknown or contingent liabilities of the target company;
- exposure to potential asset quality issues of the target company;
- volatility in reported income as goodwill impairment losses could occur irregularly and in varying amounts;
- challenge and expense of integrating the operations and personnel of the target company;
- inability to realize the expected revenue increases, cost savings, increases in geographic or product presence, and / or other projected benefits;
- potential disruption to our business;
- potential diversion of our management's time and attention;
- the possible loss of key employees and customers of the target company;
- potential changes in banking or tax laws or regulations that may affect the target company; and
- additional regulatory burdens associated with new lines of business.

### **We are subject to interest rate risk, and a rising rate environment may reduce our income and result in higher defaults on our loans.**

Our earnings and cash flows depend largely upon our net interest income. Interest rates are highly sensitive to many factors that are beyond our control, including general economic conditions and policies of governmental and regulatory agencies, particularly the Federal Reserve. Changes in monetary policy, including changes in interest rates, could influence not only the interest we receive on loans and investments and the amount of interest we pay on deposits and borrowings, but such changes could also affect (i) our ability to originate loans and obtain deposits; (ii) the fair value of our financial assets and liabilities; and (iii) the average duration of our mortgage-backed securities portfolio and other interest-earning assets.

If the interest rates paid on deposits and other borrowings increase at a faster rate than the interest rates received on loans and other investments, our net interest income, and therefore earnings, could be adversely affected. In addition, our net interest margin may contract in a rising rate environment because our funding costs may increase faster than the yield we earn on our interest-earning assets. In a rising rate environment, loans with adjustable interest rates are more likely to experience a higher rate of default. The combination of these events may adversely affect our financial condition and results of operations.

Earnings could also be adversely affected if the interest rates received on loans and other investments fall more quickly than the interest rates paid on deposits and other borrowings. If we are unable to manage these risks effectively, our financial condition and results of operations could be materially adversely affected.

Any substantial, unexpected or prolonged change in market interest rates could have a material adverse effect on our financial condition and results of operations. Also, our interest rate risk modeling techniques and assumptions likely may not fully predict or capture the impact of actual interest rate changes on our balance sheet.

**Our business may be adversely affected by conditions in the financial markets and economic conditions generally.**

Our financial performance generally, and in particular the ability of borrowers to pay interest on and repay principal of outstanding loans and the value of collateral securing those loans, as well as demand for loans and other products and services we offer, is highly dependent on the business environment in the markets where we operate, in the State of New York and in the United States as a whole. A favorable business environment is generally characterized by, among other factors, economic growth, efficient capital markets, low inflation, low unemployment, high business and investor confidence, and strong business earnings. Unfavorable or uncertain economic and market conditions can be caused by declines in economic growth, business activity or investor or business confidence; limitations on the availability or increases in the cost of credit and capital; increases in inflation or interest rates; high unemployment, natural disasters; or a combination of these or other factors. The occurrence of any of these conditions could have a material adverse effect on our financial condition and results of operations.

**The policies of the Federal Reserve have a significant impact on our earnings.**

The policies of the Federal Reserve impact us significantly. The Federal Reserve regulates the supply of money and credit in the United States. Its policies directly and indirectly influence the rate of interest earned on loans and paid on borrowings and interest-bearing deposits and can also affect the value of financial instruments we hold. Those policies determine, to a significant extent, our cost of funds for lending and investing and impact our net interest income, our primary source of revenue. Changes in those policies are beyond our control and are difficult to predict. Federal Reserve policies can also affect our borrowers, potentially increasing the risk that they may fail to repay their loans. For example, a tightening of the money supply by the Federal Reserve could reduce the demand for a borrower's products and services. This could adversely affect the borrower's earnings and ability to repay its loan, which could have a material adverse effect on our financial condition and results of operations.

**The soundness of other financial institutions could adversely affect us.**

Financial services institutions are interrelated as a result of trading, clearing, counterparty, or other relationships. We have exposure to many different industries and counterparties, and we routinely execute transactions with counterparties in the financial services industry, including commercial banks, brokers and dealers, investment banks, and other institutional clients. Many of these transactions expose us to credit risk in the event of a default by our counterparty or client. In addition, our credit risk may be exacerbated when the collateral held by us cannot be realized or is liquidated at prices not sufficient to recover the full amount of the credit or derivative exposure due us. Any such losses could have a material adverse effect on our financial condition and results of operations.

**The value of our goodwill and other intangible assets may decline in the future.**

As of December 31, 2018, we had \$66.1 million of goodwill and \$10.1 million of other intangible assets. Significant and sustained declines in our stock price and market capitalization, significant declines in our expected future cash flows, significant adverse changes in the business climate or slower growth rates, any or all of which could be materially impacted by many of the risk factors discussed herein, may necessitate our taking charges in the future related to the impairment of our goodwill. Future regulatory actions could also have a material impact on assessments of goodwill for impairment. If the fair value of our net assets improves at a faster rate than the market value of our reporting units, or if we were to experience increases in book values of a reporting unit in excess of the increase in fair value of equity, we may also have to take charges related to the impairment of our goodwill. If we were to conclude that a future write-down of our goodwill is necessary, we would record the appropriate charge, which could have a material adverse effect on our results of operations.

Identifiable intangible assets other than goodwill consist of core deposit intangibles and other intangible assets (primarily customer relationships). Adverse events or circumstances could impact the recoverability of these intangible assets including loss of core deposits, significant losses of customer accounts and/or balances, increased competition or adverse changes in the economy. To the extent these intangible assets are deemed unrecoverable, a non-cash impairment charge would be recorded which could have a material adverse effect on our results of operations.

During the fourth quarter of 2015, we determined that the carrying value of our SDN reporting unit exceeded its fair value and recorded a \$751 thousand impairment charge. During the second quarter of 2017, we determined that the carrying value of our SDN reporting unit exceeded its fair value and recorded an additional \$1.6 million impairment charge. During the fourth quarter of 2018, we again determined that the carrying value of our SDN reporting unit exceeded its fair value and recorded an additional \$2.4 million impairment charge. For further discussion, see Note 1, Summary of Significant Accounting Policies, and Note 7, Goodwill and Other Intangible Assets, to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

### **We operate in a highly competitive industry and market area.**

We face substantial competition in all areas of our operations from a variety of different competitors, many of which are larger and may have more financial resources than us. Such competitors primarily include national, regional and internet banks within the markets in which we operate. We also face competition from many other types of financial institutions, including, without limitation, savings and loan associations, credit unions, finance companies, brokerage firms, insurance companies and other financial intermediaries. The financial services industry could become even more competitive as a result of legislative, regulatory and technological changes and continued consolidation. Banks, securities firms and insurance companies can merge under the umbrella of a financial holding company, which can offer virtually any type of financial service, including banking, securities underwriting, insurance (both agency and underwriting), and merchant banking. Also, technology has lowered barriers to entry and made it possible for nonbanks to offer products and services traditionally provided by banks, such as automatic transfer and automatic payment systems. More recently, peer to peer lending has emerged as an alternative borrowing source for our customers and many other non-banks offer lending and payment services in competition with banks. Many of these competitors have fewer regulatory constraints and may have lower cost structures. Additionally, due to their size, many of our larger competitors may be able to achieve economies of scale and, as a result, may offer a broader range of products and services as well as better pricing for those products and services than we can.

Our ability to compete successfully depends on a number of factors, including, among other things:

- the ability to develop, maintain and build upon long-term customer relationships based on top quality service, high ethical standards and safe, sound assets;
- the ability to expand our market position;
- the scope, relevance and pricing of products and services offered to meet customer needs and demands;
- the rate at which we introduce new products and services relative to our competitors;
- customer satisfaction with our level of service; and
- industry and general economic trends.

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

### **Severe weather, natural disasters, acts of war or terrorism, and other external events could significantly impact our business.**

Severe weather, natural disasters, acts of war or terrorism, and other adverse external events could have a significant impact on our ability to conduct business. Such events could affect the operations of our bank branches, stability of our deposit base, impair the ability of borrowers to repay outstanding loans, impair the value of collateral securing loans, cause significant property damage, result in loss of revenue, and/or cause us to incur additional expenses. The occurrence of any such event could have a material adverse effect on our business, which, in turn, could have a material adverse effect on our financial condition and results of operations.

### **Liquidity is essential to our businesses.**

Our liquidity could be impaired by an inability to access the capital markets or unforeseen outflows of cash. Reduced liquidity may arise due to circumstances that we may be unable to control, such as a general market disruption or an operational problem that affects third parties or us. Our efforts to monitor and manage liquidity risk may not be successful or sufficient to deal with dramatic or unanticipated reductions in our liquidity. In such events, our cost of funds may increase, thereby reducing our net interest income, or we may need to sell a portion of our investment and/or loan portfolio, which, depending upon market conditions, could result in us realizing a loss.

### **We may need to raise additional capital in the future and such capital may not be available on acceptable terms or at all.**

We may need to raise additional capital in the future to provide sufficient capital resources and liquidity to meet our commitments and business needs. Our ability to raise additional capital, if needed, will depend on our financial performance and, among other things, conditions in the capital markets at that time, which is outside of our control.

In addition, we are highly regulated, and our regulators could require us to raise additional common equity in the future. We and our regulators perform a variety of analyses of our assets, including the preparation of stress case scenarios, and as a result of those assessments we could determine, or our regulators could require us, to raise additional capital.

We may not be able to access required capital on acceptable terms or at all. Any occurrence that may limit our access to the capital markets, such as a decline in the confidence of debt purchasers, depositors of the Bank or counterparties participating in the capital markets, or a downgrade of our debt rating, may adversely affect our capital costs and ability to raise capital and, in turn, our liquidity. An inability to raise additional capital on acceptable terms when needed could have a material adverse impact on our business, financial condition, results of operations or liquidity.



**We rely on dividends from our subsidiaries for most of our revenue.**

We are a separate and distinct legal entity from our subsidiaries. A substantial portion of our revenue comes from dividends from our Bank subsidiary. These dividends are the principal source of funds we use to pay dividends on our common and preferred stock, and to pay interest and principal on our debt. Federal and/or state laws and regulations limit the amount of dividends that our Bank subsidiary may pay to us. Also, our right to participate in a distribution of assets upon a subsidiary's liquidation or reorganization is subject to the prior claims of the subsidiary's creditors. In the event our Bank subsidiary is unable to pay dividends to us, we may not be able to service debt, pay obligations, or pay dividends on our common and preferred stock. The inability to receive dividends from our Bank subsidiary could have a material adverse effect on our business, financial condition, and results of operations.

**We may not pay or may reduce the dividends on our common stock.**

Holders of our common stock are only entitled to receive such dividends as our Board of Directors may declare out of funds legally available for such payments. Although we have historically declared cash dividends on our common stock, we are not required to do so and may reduce or eliminate our common stock dividend in the future. This could adversely affect the market price of our common stock.

**We may issue debt and equity securities or securities convertible into equity securities, any of which may be senior to our common stock as to distributions and in liquidation, which could dilute our current shareholders or negatively affect the value of our common stock.**

In the future, we may attempt to increase our capital resources by entering into debt or debt-like financing that is unsecured or secured by all or up to all of our assets, or by issuing additional debt or equity securities, which could include issuances of secured or unsecured commercial paper, medium-term notes, senior notes, subordinated notes, preferred stock or securities convertible into or exchangeable for equity securities. In the event of our liquidation, our lenders and holders of our debt and preferred securities would receive a distribution of our available assets before distributions to the holders of our common stock. Because our decision to incur debt and issue securities in our future offerings will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of our future offerings and debt financings. Further, market conditions could require us to accept less favorable terms for the issuance of our securities in the future. We may also issue additional shares of our common stock or securities convertible into or exchangeable for our common stock that could dilute our current shareholders and effect the value of our common stock.

**Our certificate of incorporation, our bylaws, and certain banking laws may have an anti-takeover effect.**

Provisions of our certificate of incorporation, our bylaws, and federal and state banking laws, including regulatory approval requirements, could make it more difficult for a third party to acquire us, even if doing so would be perceived to be beneficial to our shareholders. The combination of these provisions may discourage others from initiating a potential merger, takeover or other change of control transaction, which, in turn, could adversely affect the market price of our common stock.

**The market price of our common stock may fluctuate significantly in response to a number of factors.**

Our quarterly and annual operating results have varied in the past and could vary significantly in the future, which makes it difficult for us to predict our future operating results. Our operating results may fluctuate due to a variety of factors, many of which are outside of our control, including the changing U.S. economic environment and changes in the commercial and residential real estate market, any of which may cause our stock price to fluctuate. If our operating results fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially. Our stock price can fluctuate significantly in response to a variety of factors including, among other things:

- volatility of stock market prices and volumes in general;
- changes in market valuations of similar companies;
- changes in conditions in credit markets;
- changes in accounting policies or procedures as required by the Financial Accounting Standards Board ("FASB") or other regulatory agencies;
- legislative and regulatory actions (including the impact of implementing the Dodd-Frank Act or rolling back its regulations) subjecting us to additional or different regulatory oversight which may result in increased compliance costs and/or require us to change our business model;
- government intervention in the U.S. financial system and the effects of and changes in trade and monetary and fiscal policies and laws, including the interest rate policies of the Federal Reserve Board;
- additions or departures of key members of management;
- fluctuations in our quarterly or annual operating results; and
- changes in analysts' estimates of our financial performance.

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**ITEM 1B. UNRESOLVED STAFF COMMENTS**

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None.

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**ITEM 2. PROPERTIES**

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We own a 27,400 square foot building in Warsaw, New York that serves as our headquarters, and principal executive and administrative offices. We lease a 52,300 square foot regional administrative facility located in Rochester, New York. This lease expires in August 2027, with options for two additional ten-year extensions.

We are engaged in the banking business through 53 branch offices, of which 35 are owned and 18 are leased, in the following fifteen contiguous counties of Western and Central New York: Allegany, Cattaraugus, Cayuga, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Steuben, Wyoming and Yates Counties. The operating leases for our branch offices expire at various dates through the year 2047 and generally include options to renew. The Bank also has administrative operations at a leased facility in Amherst, New York.

SDN operates from a leased 14,400 square foot office located in Williamsville, New York. The lease for such space, which is used by SDN and several of our Bank's commercial lenders, extends through September 2021. SDN also leases one retail location.

Courier Capital operates from an owned 11,000 square foot office, located in Buffalo, New York. Courier Capital also has operations at a leased facility in Amherst, New York and an owned facility in Jamestown, New York.

We believe that our properties have been adequately maintained, are in good operating condition and are suitable for our business as presently conducted, including meeting the prescribed security requirements. For additional information, see Note 6, Premises and Equipment, Net, and Note 11, Commitments and Contingencies, in the accompanying financial statements included in Part II, Item 8, of this Annual Report on Form 10-K.

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**ITEM 3. LEGAL PROCEEDINGS**

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From time to time we are a party to or otherwise involved in legal proceedings arising out of the normal course of business. Management does not believe that there is any pending or threatened proceeding against us, which, if determined adversely, would have a material adverse effect on our business, results of operations or financial condition.

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**ITEM 4. MINE SAFETY DISCLOSURES**

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Not applicable.

## PART II

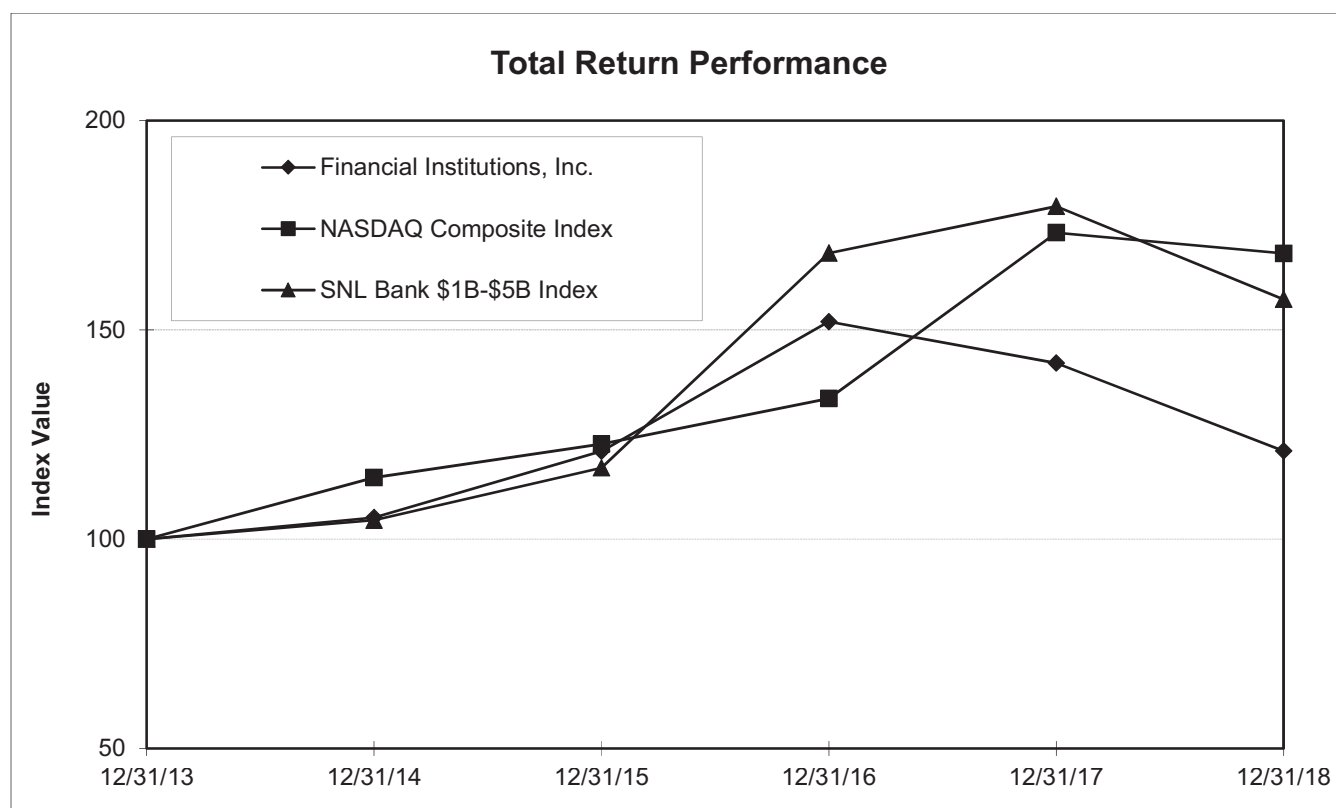
### ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on the Nasdaq Global Select Market under the ticker symbol "FISI." At February 22, 2019, 15,928,598 shares of our common stock were outstanding and held by approximately 3,400 shareholders of record. See additional information regarding the market price and dividends paid in Part II, Item 6, "Selected Financial Data."

We have paid regular quarterly cash dividends on our common stock and our Board of Directors presently intends to continue this practice, subject to our results of operations and the need for those funds for debt service and other purposes. See the discussions in the section captioned "Supervision and Regulation" included in Part I, Item 1, "Business," in the section captioned "Liquidity and Capital Resources" included in Part II, Item 7, in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and in Note 12, Regulatory Matters, in the accompanying financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data," all of which are included elsewhere in this report and incorporated herein by reference thereto.

#### Stock Performance Graph

The stock performance graph below compares (a) the cumulative total return on our common stock for the period beginning December 31, 2013 as reported by the Nasdaq Global Select Market, through December 31, 2018, (b) the cumulative total return on stocks included in the NASDAQ Composite Index over the same period, and (c) the cumulative total return, as compiled by S&P Global Market Intelligence of Major Exchange (NYSE, NYSE American and Nasdaq) Banks with \$1 billion to \$5 billion in assets over the same period. Cumulative return assumes the reinvestment of dividends. The graph was prepared by S&P Global Market Intelligence and is expressed in dollars based on an assumed investment of \$100.



Index	Period Ending					
	12/31/13	12/31/14	12/31/15	12/31/16	12/31/17	12/31/18
Financial Institutions, Inc.	100.00	105.17	120.99	151.97	142.06	121.08
NASDAQ Composite Index	100.00	114.75	122.74	133.62	173.22	168.30
SNL Bank \$1B-\$5B Index	100.00	104.56	117.04	168.38	179.51	157.27

**ITEM 6. SELECTED FINANCIAL DATA***(Dollars in thousands, except per share data)*

	<b>At or for the year ended December 31,</b>				
	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
<b>Selected financial condition data:</b>					
Total assets	\$ 4,311,698	\$ 4,105,210	\$ 3,710,340	\$ 3,381,024	\$ 3,089,521
Loans, net	3,052,684	2,700,345	2,309,227	2,056,677	1,884,365
Investment securities	892,258	1,041,439	1,083,264	1,030,112	916,932
Deposits	3,366,907	3,210,174	2,995,222	2,730,531	2,450,527
Borrowings	508,702	485,331	370,561	332,090	334,804
Shareholders' equity	396,293	381,177	320,054	293,844	279,532
Common shareholders' equity	378,965	363,848	302,714	276,504	262,192
Tangible common shareholders' equity <sup>(1)</sup>	302,792	289,145	227,074	209,558	193,553
<b>Selected operations data:</b>					
Interest income	\$ 152,732	\$ 130,110	\$ 115,231	\$ 105,450	\$ 101,055
Interest expense	29,868	17,495	12,541	10,137	7,281
Net interest income	122,864	112,615	102,690	95,313	93,774
Provision for loan losses	8,934	13,361	9,638	7,381	7,789
Net interest income after provision for loan losses	113,930	99,254	93,052	87,932	85,985
Noninterest income	36,478	34,730	35,760	30,337	25,350
Noninterest expense	100,876	90,513	84,671	79,393	72,355
Income before income taxes	49,532	43,471	44,141	38,876	38,980
Income tax expense	10,006	9,945	12,210	10,539	9,625
Net income	<u>\$ 39,526</u>	<u>\$ 33,526</u>	<u>\$ 31,931</u>	<u>\$ 28,337</u>	<u>\$ 29,355</u>
Preferred stock dividends	1,461	1,462	1,462	1,462	1,462
Net income available to common shareholders	<u>\$ 38,065</u>	<u>\$ 32,064</u>	<u>\$ 30,469</u>	<u>\$ 26,875</u>	<u>\$ 27,893</u>
<b>Stock and related per share data:</b>					
Earnings per common share:					
Basic	\$ 2.39	\$ 2.13	\$ 2.11	\$ 1.91	\$ 2.01
Diluted	\$ 2.39	\$ 2.13	\$ 2.10	\$ 1.90	\$ 2.00
Cash dividends declared per common share	\$ 0.96	\$ 0.85	\$ 0.81	\$ 0.80	\$ 0.77
Common book value per share	\$ 23.79	\$ 22.85	\$ 20.82	\$ 19.49	\$ 18.57
Tangible common book value per share <sup>(1)</sup>	\$ 19.01	\$ 18.16	\$ 15.62	\$ 14.77	\$ 13.71
Market price (Nasdaq: FISI):					
High	\$ 34.35	\$ 35.40	\$ 34.55	\$ 29.04	\$ 27.02
Low	\$ 24.49	\$ 25.65	\$ 25.98	\$ 21.67	\$ 19.72
Close	\$ 25.70	\$ 31.10	\$ 34.20	\$ 28.00	\$ 25.15

<sup>(1)</sup> This is a non-GAAP measure that we believe is useful in understanding our financial performance and condition. Refer to the GAAP to Non-GAAP Reconciliation for further information.

(Dollars in thousands)

	At or for the year ended December 31,				
	2018	2017	2016	2015	2014
<b>Performance ratios:</b>					
Net income, returns on:					
Average assets	0.95%	0.86%	0.90%	0.87%	0.98%
Average equity	10.18%	9.62%	10.01%	9.78%	10.80%
Net income available to common shareholders, returns on:					
Average common equity	10.26%	9.68%	10.10%	9.87%	10.96%
Average tangible common equity <sup>(1)</sup>	12.95%	12.51%	13.51%	13.16%	14.12%
Average tangible assets <sup>(1)</sup>	0.93%	0.84%	0.88%	0.84%	0.95%
Common dividend payout ratio	40.17%	39.91%	38.39%	41.88%	38.31%
Net interest margin (fully tax-equivalent)	3.18%	3.21%	3.24%	3.28%	3.50%
Effective tax rate	20.2%	22.9%	27.7%	27.1%	24.7%
Efficiency ratio <sup>(2)</sup>	62.73%	60.65%	60.95%	62.44%	59.18%
<b>Capital ratios:</b>					
Leverage ratio <sup>(3)</sup>	8.16%	8.13%	7.36%	7.41%	7.35%
Common equity Tier 1 capital ratio <sup>(3)</sup>	9.70%	10.16%	9.59%	9.77%	n/a
Tier 1 capital ratio <sup>(3)</sup>	10.21%	10.74%	10.26%	10.50%	10.47%
Total risk-based capital ratio <sup>(3)</sup>	12.38%	13.19%	12.97%	13.35%	11.72%
Average equity to average assets	9.31%	8.95%	8.99%	8.86%	9.08%
Common equity to assets	8.79%	8.86%	8.16%	8.18%	8.49%
Tangible common equity to tangible assets <sup>(1)</sup>	7.15%	7.17%	6.25%	6.32%	6.41%
<b>Asset quality:</b>					
Non-performing loans	\$ 7,141	\$ 12,531	\$ 6,326	\$ 8,440	\$ 10,153
Non-performing assets	\$ 7,371	\$ 12,679	\$ 6,433	\$ 8,603	\$ 10,347
Allowance for loan losses	\$ 33,914	\$ 34,672	\$ 30,934	\$ 27,085	\$ 27,637
Net loan charge-offs	\$ 9,692	\$ 9,623	\$ 5,789	\$ 7,933	\$ 6,888
Non-performing loans to total loans	0.23%	0.46%	0.27%	0.41%	0.53%
Non-performing assets to total assets	0.17%	0.31%	0.17%	0.25%	0.33%
Net charge-offs to average loans	0.33%	0.38%	0.26%	0.40%	0.37%
Allowance for loan losses to total loans	1.10%	1.27%	1.32%	1.30%	1.45%
Allowance for loan losses to non-performing loans	475%	277%	489%	321%	272%
<b>Other data:</b>					
Number of branches	53	53	52	50	49
Full time equivalent employees	702	639	631	660	622

<sup>(1)</sup> This is a non-GAAP measure that we believe is useful in understanding our financial performance and condition. Refer to the GAAP to Non-GAAP Reconciliation for further information.

<sup>(2)</sup> Efficiency ratio provides a ratio of operating expenses to operating income. Efficiency ratio is calculated by dividing noninterest expense by net revenue, which is defined as the sum of tax-equivalent net interest income and noninterest income before net gains on investment securities. The efficiency ratio is not a financial measurement required by GAAP. However, the efficiency ratio is used by management in its assessment of financial performance specifically as it relates to noninterest expense control. Management also believes such information is useful to investors in evaluating Company performance.

<sup>(3)</sup> 2018, 2017, 2016 and 2015 ratios calculated under Basel III rules, which became effective January 1, 2015.

## GAAP to Non-GAAP Reconciliation

(In thousands, except per share data)

	At or for the year ended December 31,				
	2018	2017	2016	2015	2014
<b>Computation of ending tangible common equity:</b>					
Common shareholders' equity	\$ 378,965	\$ 363,848	\$ 302,714	\$ 276,504	\$ 262,192
Less: goodwill and other intangible assets, net	76,173	74,703	75,640	66,946	68,639
Tangible common equity	<u>\$ 302,792</u>	<u>\$ 289,145</u>	<u>\$ 227,074</u>	<u>\$ 209,558</u>	<u>\$ 193,553</u>
<b>Computation of ending tangible assets:</b>					
Total assets	\$4,311,698	\$4,105,210	\$3,710,340	\$3,381,024	\$3,089,521
Less: goodwill and other intangible assets, net	76,173	74,703	75,640	66,946	68,639
Tangible assets	<u>\$4,235,525</u>	<u>\$4,030,507</u>	<u>\$3,634,700</u>	<u>\$3,314,078</u>	<u>\$3,020,882</u>
Tangible common equity to tangible assets <sup>(1)</sup>	7.15%	7.17%	6.25%	6.32%	6.41%
Common shares outstanding	15,929	15,925	14,538	14,191	14,118
Tangible common book value per share <sup>(2)</sup>	\$ 19.01	\$ 18.16	\$ 15.62	\$ 14.77	\$ 13.71
<b>Computation of average tangible common equity:</b>					
Average common equity	\$ 371,023	\$ 331,184	\$ 301,666	\$ 272,367	\$ 254,533
Average goodwill and other intangible assets, net	76,990	74,818	76,170	68,138	57,039
Average tangible common equity	<u>\$ 294,033</u>	<u>\$ 256,366</u>	<u>\$ 225,496</u>	<u>\$ 204,229</u>	<u>\$ 197,494</u>
<b>Computation of average tangible assets:</b>					
Average assets	\$4,171,972	\$3,896,071	\$3,547,105	\$3,269,890	\$2,994,604
Average goodwill and other intangible assets, net	76,990	74,818	76,170	68,138	57,039
Average tangible assets	<u>\$4,094,982</u>	<u>\$3,821,253</u>	<u>\$3,470,935</u>	<u>\$3,201,752</u>	<u>\$2,937,565</u>
Net income available to common shareholders	\$ 38,065	\$ 32,064	\$ 30,469	\$ 26,875	\$ 27,893
Return on average tangible common equity <sup>(3)</sup>	12.95%	12.51%	13.51%	13.16%	14.12%
Return on average tangible assets <sup>(4)</sup>	0.93%	0.84%	0.88%	0.84%	0.95%

<sup>(1)</sup> Tangible common equity divided by tangible assets.

<sup>(2)</sup> Tangible common equity divided by common shares outstanding.

<sup>(3)</sup> Net income available to common shareholders divided by average tangible common equity.

<sup>(4)</sup> Net income available to common shareholders divided by average tangible assets.

This table contains disclosure that includes calculations for tangible common equity, tangible assets, tangible common equity to tangible assets, tangible common book value per share, average tangible common equity, average tangible assets, return on average tangible common equity and return on average tangible assets, which are determined by methods other than in accordance with GAAP. We believe that these non-GAAP measures are useful to our investors as measures of the strength of our capital and ability to generate earnings on tangible common equity invested by our shareholders. These non-GAAP measures provide supplemental information that may help investors to analyze our capital position without regard to the effects of intangible assets. Non-GAAP financial measures have inherent limitations and are not uniformly utilized by issuers. Therefore, these non-GAAP financial measures should not be considered in isolation, or as a substitute for comparable measures prepared in accordance with GAAP.

## SELECTED QUARTERLY DATA

(Dollars in thousands, except per share data)

	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
<b>2018</b>				
Interest income	\$ 41,125	\$ 39,117	\$ 37,013	\$ 35,477
Interest expense	9,096	8,214	6,783	5,775
Net interest income	32,029	30,903	30,230	29,702
Provision for loan losses	3,884	2,061	40	2,949
Net interest income after provision for loan losses	28,145	28,842	30,190	26,753
Noninterest income	9,348	9,816	8,407	8,907
Noninterest expense	27,803	25,521	23,448	24,104
Income before income taxes	9,690	13,137	15,149	11,556
Income tax expense	2,199	2,560	2,979	2,268
Net income	<u>\$ 7,491</u>	<u>\$ 10,577</u>	<u>\$ 12,170</u>	<u>\$ 9,288</u>
Preferred stock dividends	365	365	366	365
Net income applicable to common shareholders	<u>\$ 7,126</u>	<u>\$ 10,212</u>	<u>\$ 11,804</u>	<u>\$ 8,923</u>
Earnings per common share <sup>(1)</sup> :				
Basic	\$ 0.45	\$ 0.64	\$ 0.74	\$ 0.56
Diluted	0.45	0.64	0.74	0.56
Cash dividends declared per common share	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24
<b>2017</b>				
Interest income	\$ 34,767	\$ 33,396	\$ 31,409	\$ 30,538
Interest expense	5,007	4,958	3,987	3,543
Net interest income	29,760	28,438	27,422	26,995
Provision for loan losses	3,946	2,802	3,832	2,781
Net interest income after provision for loan losses	25,814	25,636	23,590	24,214
Noninterest income	8,987	8,574	9,333	7,836
Noninterest expense	23,163	22,467	23,941	20,942
Income before income taxes	11,638	11,743	8,982	11,108
Income tax expense	580	3,464	2,736	3,165
Net income	<u>\$ 11,058</u>	<u>\$ 8,279</u>	<u>\$ 6,246</u>	<u>\$ 7,943</u>
Preferred stock dividends	365	366	366	365
Net income applicable to common shareholders	<u>\$ 10,693</u>	<u>\$ 7,913</u>	<u>\$ 5,880</u>	<u>\$ 7,578</u>
Earnings per common share <sup>(1)</sup> :				
Basic	\$ 0.68	\$ 0.52	\$ 0.40	\$ 0.52
Diluted	0.68	0.52	0.40	0.52
Cash dividends declared per common share	\$ 0.22	\$ 0.21	\$ 0.21	\$ 0.21

<sup>(1)</sup> Earnings per share data is computed independently for each of the quarters presented. Therefore, the sum of the quarterly earnings per common share amounts may not equal the total for the year.

## 2018 FOURTH QUARTER RESULTS

Net income was \$7.5 million for the fourth quarter of 2018 compared with \$11.1 million for the fourth quarter of 2017. Results for the fourth quarter of 2018 were negatively impacted by a \$2.4 million non-cash goodwill impairment charge related to the 2014 acquisition of SDN and \$667 thousand of non-recurring expense incurred in connection with employee retirements and severance. Results for the fourth quarter of 2017 were positively impacted by a \$2.9 million reduction in income tax expense due to the TCJ Act, primarily driven by a revaluation adjustment to the net deferred tax liability. After preferred dividends, net income available to common shareholders for the fourth quarter of 2018 was \$7.1 million or \$0.45 per diluted share, compared to \$10.7 million or \$0.68 per share in the fourth quarter of 2017.

Net interest income was \$32.0 million for the fourth quarter of 2018 compared with \$29.8 million for the fourth quarter of 2017. The increase was primarily related to an increase in average interest-earning assets of \$265.3 million, led by a \$376.9 million increase in loans.

The provision for loan losses was \$3.9 million for the fourth quarter of 2018 compared with \$3.9 million for the fourth quarter of 2017. Net charge-offs for the fourth quarter of 2018 were \$3.9 million, or 0.51% annualized, of average loans, compared to \$3.6 million, or 0.54% annualized, of average loans in the fourth quarter of 2017.

Noninterest income was \$9.3 million for the fourth quarter of 2018 compared to \$9.0 million in the fourth quarter of 2017.

Noninterest expense was \$27.8 million for the fourth quarter of 2018 compared to \$23.2 million in the fourth quarter of 2017. The increase was the result of higher salaries and employee benefits related to investments in bank personnel, the 2018 acquisition of HNP Capital and \$667 thousand of non-recurring expense incurred in connection with employee retirements and severance; higher occupancy and equipment expense related to higher software, rent and maintenance expense; and the recognition of a \$2.4 million non-cash goodwill impairment charge related to SDN.

Income tax expense was \$2.2 million in the fourth quarter of 2018, representing an effective tax rate of 22.7%, compared to \$580 thousand in the fourth quarter of 2017, representing an effective tax rate of 5.0%. The fourth quarter of 2018 effective tax rate was negatively impacted by the SDN goodwill impairment charge, which is not a tax-deductible expense. Fourth quarter of 2017 expense and effective tax rate were positively impacted by a \$2.9 million reduction in expense due to the TCJ Act, primarily driven by a revaluation adjustment to the net deferred tax liability. Effective tax rates are impacted by items of income and expense that are not subject to federal or state taxation. Our effective tax rates differ from the statutory rates primarily due to the effect of interest income from tax-exempt securities, earnings on company owned life insurance, the non-cash fair value adjustment of the contingent consideration liability associated with the SDN acquisition, the 2018 and 2017 non-cash goodwill impairment charges related to SDN and, in 2017, the net impact of the TCJ Act, as described above.



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

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*The following is a discussion and analysis of our financial position and results of operations and should be read in conjunction with the information set forth under Part I, Item 1A, "Risks Factors," and our consolidated financial statements and notes thereto appearing under Part II, Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.*

### INTRODUCTION

Financial Institutions, Inc. (the "Parent" and together with all its subsidiaries, "we," "our," or "us"), is a financial holding company headquartered in New York State. We offer a broad array of deposit, lending, and other financial services to individuals, municipalities and businesses in Western and Central New York through our wholly-owned New York-chartered banking subsidiary, Five Star Bank (the "Bank"). Our indirect lending network includes relationships with franchised automobile dealers in Western and Central New York, the Capital District of New York and Northern and Central Pennsylvania. We offer insurance services through our wholly-owned subsidiary, SDN Insurance Agency, LLC (formerly Scott Danahy Naylor, LLC) ("SDN"), a full-service insurance agency. In addition, we offer customized investment advice, wealth management, investment consulting and retirement plan services through our wholly-owned subsidiaries Courier Capital, LLC ("Courier Capital") and HNP Capital, LLC ("HNP Capital"), SEC-registered investment advisory and wealth management firms.

Our primary sources of revenue are net interest income (interest earned on our loans and securities, net of interest paid on deposits and other funding sources) and noninterest income, particularly fees and other revenue from insurance, investment advisory and financial services provided to customers or ancillary services tied to loans and deposits. Business volumes and pricing drive revenue potential, and tend to be influenced by overall economic factors, including market interest rates, business spending, consumer confidence, economic growth, and competitive conditions within the marketplace. We are not able to predict market interest rate fluctuations with certainty and our asset/liability management strategy may not prevent interest rate changes from having a material adverse effect on our results of operations and financial condition.

### EXECUTIVE OVERVIEW

#### 2018 Financial Performance Review

During 2018 we continued to execute on our growth and diversification strategy and progressed in growing our core banking franchise. We delivered year-over-year increases in both total loans and total deposits of 13% and 5%, respectively, which drove our revenue higher. We acquired HNP Capital, a Rochester-based investment advisory firm, furthering our strategy to increase fee-based noninterest income. We also made progress on our initiative to reposition the balance sheet by deploying marketable securities into loans, funding approximately \$143 million of loans with investment security maturities, sales and payment proceeds.

Net income for 2018 was \$39.5 million, compared to \$33.5 million for 2017. This resulted in a 0.95% return on average assets and a 10.18% return on average equity. Net income available to common shareholders was \$38.1 million or \$2.39 per diluted share for 2018, compared to \$32.1 million or \$2.13 per diluted share for 2017. We declared cash dividends of \$0.96 during 2018, an increase of \$0.11 per common share or 13% compared to the prior year.

Fully-taxable equivalent net interest income was \$124.2 million in 2018, an increase of \$8.4 million, or 7%, compared to 2017. This reflected the impact of 8% growth in average interest-earning assets, partially offset by a three-basis point decline in the net interest margin to 3.18%.

The provision for loan losses decreased \$4.4 million, or 33%, from 2017 as our allowance for loan losses reflects the release of reserves due to favorable asset quality trends and qualitative factors. Net charge-offs increased \$69 thousand from the prior year to \$9.7 million in 2018. Net charge-offs were an annualized 0.33% of average loans in the current year compared to 0.38% in 2017. In addition, non-performing loans decreased \$5.4 million compared to a year ago to \$7.1 million, or 0.23% of total loans.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Noninterest income totaled \$36.5 million for the full year 2018, an increase of \$1.7 million or 5% when compared to the prior year. Investment advisory income increased by \$2.0 million to \$8.1 million during the current year reflecting higher assets under management driven by the acquisition of HNP Capital. Income from investments in limited partnerships increased to \$1.2 million in 2018 from \$110 thousand in the prior year. Income from these investments fluctuates based on the maturity and performance of the underlying investments. Income from derivative instruments, net increased to \$972 thousand in 2018 from \$131 thousand in the prior year. Income from derivative instruments, net primarily consists of income associated with interest rate swap products offered to commercial loan customers and is based on the number and value of transactions executed. The Bank implemented this program in the third quarter of 2017. In addition, the net gain (loss) on investment securities was a loss of \$127 thousand in 2018, compared to a gain of \$1.3 million in 2017. During 2017, we recognized a non-cash fair value adjustment of the contingent consideration liability related to the SDN acquisition that resulted in noninterest income of \$1.2 million. The fair value of the contingent consideration liability was recorded at the time of the SDN acquisition as a component of the purchase price.

Noninterest expense for the full year 2018 totaled \$100.9 million, a \$10.4 million increase compared to \$90.5 million in the prior year. Salaries and benefits expense increased \$6.0 million year-over-year, primarily as a result of investments in bank personnel, the 2018 acquisition of HNP Capital, compensation to employees not covered by existing incentive programs, and nonrecurring expense incurred in connection with employee retirements and severance. Also contributing to the increase were higher occupancy and equipment expense, higher advertising and promotions expense and a higher goodwill impairment charge related to SDN.

Income tax expense for the year was \$10.0 million, representing an effective tax rate of 20.2% compared to an effective tax rate of 22.9% in 2017. Lower corporate tax rates were in effect for 2018 as a result of the TCJ Act. Effective tax rates are impacted by items of income and expense not subject to federal or state taxation. The Company's effective tax rates differ from statutory rates primarily because of interest income from tax-exempt securities, earnings on company owned life insurance, the non-cash fair value adjustment of the contingent consideration liability associated with the SDN acquisition and non-cash goodwill impairment charges related to SDN and the impact of the TCJ Act as described previously.

Total assets were \$4.31 billion at December 31, 2018, up \$206.5 million from \$4.11 billion at December 31, 2017. The increase was largely the result of loan growth funded by deposit growth and proceeds from investment securities. Total loans were \$3.09 billion at December 31, 2018, up \$351.6 million, or 13%, from December 31, 2017.

- Commercial mortgage loans totaled \$958.2 million, an increase of \$149.3 million, or 19%, from December 31, 2017.
- Commercial business loans totaled \$557.9 million, an increase of \$107.5 million, or 24%, from December 31, 2017.
- Residential real estate loans totaled \$524.2 million, an increase of \$58.9 million, or 13%, from December 31, 2017.
- Consumer indirect loans totaled \$919.9 million, an increase of \$43.3 million, or 5%, from December 31, 2017.

Total deposits were \$3.37 billion at December 31, 2018, an increase of \$156.7 million from December 31, 2017, which was primarily the result of successful business development efforts. Short-term borrowings were \$469.5 million at December 31, 2018, up \$23.3 million from December 31, 2017.

Shareholders' equity was \$396.3 million at December 31, 2018, compared to \$381.2 million at December 31, 2017. Common book value per share was \$23.79 at December 31, 2018, an increase of \$0.94 or 4% from \$22.85 at December 31, 2017. The increase in shareholders' equity as compared to December 31, 2017, is attributable to net income less dividends paid, net of the change in accumulated other comprehensive income (loss).

The Company's leverage ratio was 8.16% at December 31, 2018 compared to 8.13% at December 31, 2017. The Bank's leverage ratio and total risk-based capital ratio were 8.86% and 12.10%, respectively, at December 31, 2018, compared to 8.75% and 12.73, respectively at December 31, 2017.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### RESULTS OF OPERATIONS FOR THE YEARS ENDED DECEMBER 31, 2018 AND DECEMBER 31, 2017

#### Net Interest Income and Net Interest Margin

Net interest income is our primary source of revenue. Net interest income is the difference between interest income on interest-earning assets, such as loans and investment securities, and interest expense on interest-bearing deposits and other borrowings used to fund interest-earning and other assets or activities. Net interest income is affected by changes in interest rates and by the amount and composition of earning assets and interest-bearing liabilities, as well as the sensitivity of the balance sheet to changes in interest rates, including characteristics such as the fixed or variable nature of the financial instruments, contractual maturities and repricing frequencies.

We use interest rate spread and net interest margin to measure and explain changes in net interest income. Interest rate spread is the difference between the yield on earning assets and the rate paid for interest-bearing liabilities that fund those assets. The net interest margin is expressed as the percentage of net interest income to average earning assets. The net interest margin exceeds the interest rate spread because noninterest-bearing sources of funds ("net free funds"), principally noninterest-bearing demand deposits and shareholders' equity, also support earning assets. To compare tax-exempt asset yields to taxable yields, the yield on tax-exempt investment securities is computed on a taxable equivalent basis. Net interest income, interest rate spread, and net interest margin are discussed on a taxable equivalent basis.

The Federal Reserve influences the general market rates of interest, which impacts the deposit and loan rates offered by many financial institutions. The intended federal funds rate, which is the cost of immediately available overnight funds, was increased by 25 basis points in each of March, June, September and December 2018, resulting in a range of 2.25% to 2.50% at year-end 2018. The Federal Reserve had previously increased the intended federal funds rate by 25 basis points in each of March, June and December 2017, resulting in a range of 1.25% to 1.50% at year-end 2017 and by 25 basis points to a range of 0.50% to 0.75% in December 2016. Our loan portfolio is significantly affected by changes in the prime interest rate and changes in the prime interest rate generally follow changes in the federal funds rate. The prime interest rate, which is the rate offered on loans to borrowers with strong credit, increased to 5.50% in December 2018, reflecting the four 25 basis point increases in 2018, after the previous three 25 basis point increases in 2017 to 4.50% and 25 basis point increase to 3.75% in December 2016.

#### Net Interest Income and Net Interest Margin

The following table reconciles interest income per the consolidated statements of income to interest income adjusted to a fully taxable equivalent basis for the years ended December 31 (in thousands):

	2018	2017	2016
Interest income per consolidated statements of income	\$ 152,732	\$ 130,110	\$ 115,231
Adjustment to fully taxable equivalent basis <sup>(1)</sup>	1,353	3,160	3,172
Interest income adjusted to a fully taxable equivalent basis	154,085	133,270	118,403
Interest expense per consolidated statements of income	29,868	17,495	12,541
Net interest income on a taxable equivalent basis	\$ 124,217	\$ 115,775	\$ 105,862

(1) Adjustment calculated on a tax equivalent basis assuming a Federal tax rate of 21%, 35% and 35% for the years ended December 31, 2018, 2017 and 2016, respectively.

Net interest income on a taxable equivalent basis for 2018 increased \$8.4 million or 7%, compared to 2017. The increase was due to an increase in average interest-earning assets of \$295.7 million or 8% compared to 2017. The net interest margin of 3.18% for 2018 declined three-basis points compared to 3.21% in 2017. This decrease was a function of a 12-basis point decrease in interest rate spread to 2.96% during 2018, partially offset by a nine-basis point higher contribution from net free funds. The lower interest rate spread was a net result of a 25-basis point increase in the yield on earning assets and a 37-basis point increase in the cost of interest-bearing liabilities.

For the year ended December 31, 2018, the yield on average earning assets of 3.94% was 25-basis points higher than 2017. Loan yields increased 29-basis points during 2018 to 4.51%. The yield on investment securities decreased 15-basis points during 2018 to 2.33%. Overall, the earning asset rate changes increased interest income by \$5.9 million during 2018 and a favorable volume variance increased interest income by \$14.9 million, which collectively drove a \$20.8 million increase in interest income.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Average interest-earning assets were \$3.91 billion for 2018, an increase of \$295.7 million or 8% from the prior year, with average loans up \$379.6 million and average federal funds sold and other interest-earning deposits up \$17.8 million, partially offset by a decrease in average securities of \$101.7 million. Average loans were \$2.90 billion for 2018, an increase of \$379.6 million or 15% from the prior year. The growth in average loans reflected increases in most loan categories, which in turn reflects the impact of our growth strategy, with commercial loans up \$250.9 million, residential real estate loans up \$53.6 million, and consumer loans up \$81.0 million, partially offset by a \$5.9 million decrease in residential real estate lines. Loans comprised 74.2% of average interest-earning assets during 2018 compared to 69.7% during 2017. Loans generally have significantly higher yields compared to securities and federal funds sold and interest-bearing deposits and, as such, have a more positive effect on the net interest margin. The yield on average loans was 4.51% for 2018, an increase of 29-basis points compared to 4.22% for 2017. The increase in the volume of average loans resulted in a \$17.1 million increase in interest income, in addition to a \$7.3 million increase due to the favorable rate variance. Average securities were \$984.6 million for 2018, a decrease of \$101.7 million or 9% from the prior year. Securities comprised 25.2% of average interest-earning assets in 2018 compared to 30.1% in 2017. The taxable equivalent yield on average securities was 2.33% in 2018 compared to 2.48% in 2017. The decrease in the volume of average securities resulted in a \$2.5 million decrease in interest income, in addition to a \$1.4 million decrease due to the unfavorable rate variance.

For the year ended December 31, 2018, the cost of average interest-bearing liabilities of 0.98% was 37-basis points higher than 2017. The cost of average interest-bearing deposits increased 28-basis points to 0.73%, the cost of short-term borrowings increased 95-basis points to 2.11% and the cost of long-term borrowings decreased one-basis point to 6.31%. Overall, interest-bearing liability rate and volume increases resulted in \$12.4 million of higher interest expense.

Average interest-bearing liabilities of \$3.04 billion in 2018 were \$192.9 million or 7% higher than 2017. On average, interest-bearing deposits grew \$136.6 million, while noninterest-bearing demand deposits (a principal component of net free funds) were up \$38.3 million. The increase in average deposits was due to successful business development efforts. Overall, interest-bearing deposit rate and volume changes resulted in \$8.0 million of higher interest expense during 2018. Average short-term and long-term borrowings were \$433.8 million in 2018, \$56.4 million higher than in 2017. Overall, short and long-term borrowing rate and volume changes resulted in \$4.4 million of higher interest expense during 2018.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

The following tables present, for the periods indicated, information regarding: (i) the average balance sheet; (ii) the amount of interest income from interest-earning assets and the resulting annualized yields (tax-exempt yields have been adjusted to a tax-equivalent basis using the applicable Federal tax rate in each year); (iii) the amount of interest expense on interest-bearing liabilities and the resulting annualized rates; (iv) net interest income; (v) net interest rate spread; (vi) net interest income as a percentage of average interest-earning assets ("net interest margin"); and (vii) the ratio of average interest-earning assets to average interest-bearing liabilities. Investment securities are at amortized cost for both held to maturity and available for sale securities. Loans include net unearned income, net deferred loan fees and costs and non-accruing loans. Dollar amounts are shown in thousands.

	Years ended December 31,								
	2018			2017			2016		
	Average Balance	Interest	Average Rate	Average Balance	Interest	Average Rate	Average Balance	Interest	Average Rate
<b>Interest-earning assets:</b>									
Federal funds sold and other interest-earning deposits	\$ 24,906	\$ 428	1.72%	\$ 7,060	\$ 73	1.04%	\$ 3,116	\$ 18	0.56%
<b>Investment securities:</b>									
Taxable	724,944	16,510	2.28	788,923	17,886	2.27	767,371	17,025	2.22
Tax-exempt	259,609	6,444	2.48	297,377	9,029	3.04	295,850	9,064	3.06
Total investment securities	984,553	22,954	2.33	1,086,300	26,915	2.48	1,063,221	26,089	2.45
<b>Loans:</b>									
Commercial business	498,552	24,836	4.98	396,319	17,400	4.39	336,633	14,091	4.19
Commercial mortgage	876,484	43,580	4.97	727,849	34,019	4.67	618,436	28,465	4.60
Residential real estate loans	492,165	18,645	3.79	438,586	16,409	3.74	404,456	15,722	3.89
Residential real estate lines	112,872	5,320	4.71	118,797	4,838	4.07	124,635	4,734	3.80
Consumer indirect	901,066	36,268	4.03	819,598	31,551	3.85	703,975	27,190	3.86
Other consumer	16,682	2,054	12.31	17,111	2,065	12.07	17,620	2,094	11.89
Total loans	2,897,821	130,703	4.51	2,518,260	106,282	4.22	2,205,755	92,296	4.18
Total interest-earning assets	3,907,280	154,085	3.94	3,611,620	133,270	3.69	3,272,092	118,403	3.62
Less: Allowance for loan losses	(35,312)			(32,821)			(28,791)		
Other noninterest-earning assets	300,004			317,272			303,804		
Total assets	<u>\$4,171,972</u>			<u>\$3,896,071</u>			<u>\$3,547,105</u>		
<b>Interest-bearing liabilities:</b>									
<b>Deposits:</b>									
Interest-bearing demand	\$ 665,255	1,067	0.16	\$ 638,295	897	0.14	\$ 576,046	833	0.14
Savings and money market	1,008,665	2,887	0.29	1,033,836	1,487	0.14	1,010,510	1,339	0.13
Time deposits	936,157	15,101	1.61	801,394	8,709	1.09	697,654	6,286	0.90
Total interest-bearing deposits	2,610,077	19,055	0.73	2,473,525	11,093	0.45	2,284,210	8,458	0.37
Short-term borrowings	394,679	8,342	2.11	338,392	3,931	1.16	248,938	1,612	0.65
Long-term borrowings	39,165	2,471	6.31	39,094	2,471	6.32	39,023	2,471	6.33
Total borrowings	433,844	10,813	2.49	377,486	6,402	1.70	287,961	4,083	1.42
Total interest-bearing liabilities	3,043,921	29,868	0.98	2,851,011	17,495	0.61	2,572,171	12,541	0.49
Noninterest-bearing demand deposits	713,152			674,884			633,416		
Other noninterest-bearing liabilities	26,548			21,656			22,512		
Shareholders' equity	388,351			348,520			319,006		
Total liabilities and shareholders' equity	<u>\$4,171,972</u>			<u>\$3,896,071</u>			<u>\$3,547,105</u>		
Net interest income (tax-equivalent)	<u>\$ 124,217</u>			<u>\$ 115,775</u>			<u>\$ 105,862</u>		
Interest rate spread	<u>2.96%</u>			<u>3.08%</u>			<u>3.13%</u>		
Net earning assets	<u>\$ 863,359</u>			<u>\$ 760,609</u>			<u>\$ 699,921</u>		
Net interest margin (tax-equivalent)	<u>3.18%</u>			<u>3.21%</u>			<u>3.24%</u>		
Ratio of average interest-earning assets to average interest-bearing liabilities	<u>128.36%</u>			<u>126.68%</u>			<u>127.21%</u>		

The net interest spread, as well as the net interest margin, will be impacted by future changes in short-term and long-term interest rate levels, as well as the impact from the competitive environment. A discussion of the effects of changing interest rates on net interest income is set forth in Part II, Item 7A, "Quantitative and Qualitative Disclosures About Market Risk" included elsewhere in this report.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Rate /Volume Analysis

The following table presents, on a tax-equivalent basis, the relative contribution of changes in volumes and changes in rates to changes in net interest income for the periods indicated. The change in interest income or interest expense not solely due to changes in volume or rate has been allocated in proportion to the absolute dollar amounts of the change in each (in thousands):

Increase (decrease) in:	Change from 2017 to 2018			Change from 2016 to 2017		
	Volume	Rate	Total	Volume	Rate	Total
<b>Interest income:</b>						
Federal funds sold and interest-earning deposits	\$ 282	\$ 73	\$ 355	\$ 34	\$ 21	\$ 55
Investment securities:						
Taxable	(1,457)	81	(1,376)	484	377	861
Tax-exempt	(1,061)	(1,524)	(2,585)	47	(82)	(35)
Total investment securities	(2,518)	(1,443)	(3,961)	531	295	826
Loans:						
Commercial business	4,885	2,551	7,436	2,594	715	3,309
Commercial mortgage	7,285	2,276	9,561	5,108	446	5,554
Residential real estate loans	2,028	208	2,236	1,292	(605)	687
Residential real estate lines	(250)	732	482	(228)	332	104
Consumer indirect	3,234	1,483	4,717	4,451	(90)	4,361
Other consumer	(53)	42	(11)	(61)	32	(29)
Total loans	17,129	7,292	24,421	13,156	830	13,986
<b>Total interest income</b>	<b>14,893</b>	<b>5,922</b>	<b>20,815</b>	<b>13,721</b>	<b>1,146</b>	<b>14,867</b>
Interest expense:						
Deposits:						
Interest-bearing demand	39	131	170	88	(24)	64
Savings and money market	(37)	1,437	1,400	32	116	148
Time deposits	1,648	4,744	6,392	1,015	1,408	2,423
Total interest-bearing deposits	1,650	6,312	7,962	1,135	1,500	2,635
Short-term borrowings	744	3,667	4,411	722	1,597	2,319
Long-term borrowings	4	(4)	-	4	(4)	-
Total borrowings	748	3,663	4,411	726	1,593	2,319
<b>Total interest expense</b>	<b>2,398</b>	<b>9,975</b>	<b>12,373</b>	<b>1,861</b>	<b>3,093</b>	<b>4,954</b>
<b>Net interest income</b>	<b>\$ 12,495</b>	<b>\$ (4,053)</b>	<b>\$ 8,442</b>	<b>\$ 11,860</b>	<b>\$ (1,947)</b>	<b>\$ 9,913</b>

### Provision for Loan Losses

The provision for loan losses is based upon credit loss experience, growth or contraction of specific segments of the loan portfolio, and the estimate of losses inherent in the current loan portfolio. The provision for loan losses was \$8.9 million for the year ended December 31, 2018 compared with \$13.4 million for 2017. The decrease in provision is the result of a combination of factors including favorable asset quality trends and improved qualitative factors which include but are not limited to: national and local economic trends and conditions, concentrations of credit, the regulatory environment and trends in volume and terms of loans.

See the "Allowance for Loan Losses" and "Non-Performing Assets and Potential Problem Loans" sections of this Management's Discussion and Analysis for further discussion.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Noninterest Income

The following table summarizes our noninterest income for the years ended December 31 (in thousands):

	2018	2017	2016
Service charges on deposits	\$ 7,120	\$ 7,391	\$ 7,280
Insurance income	4,930	5,266	5,396
ATM and debit card	6,152	5,721	5,687
Investment advisory	8,123	6,104	5,208
Company owned life insurance	1,793	1,781	2,808
Investments in limited partnerships	1,203	110	300
Loan servicing	441	439	436
Income from derivative instruments, net	972	131	-
Net gain on sale of loans held for sale	796	376	240
Net (loss) gain on investment securities	(127)	1,260	2,695
Net gain on other assets	50	37	313
Contingent consideration liability adjustment	-	1,200	1,170
Other	5,025	4,914	4,227
<b>Total noninterest income</b>	<b>\$ 36,478</b>	<b>\$ 34,730</b>	<b>\$ 35,760</b>

Insurance income decreased by \$336 thousand, or 6%, to \$4.9 million during 2018. The decrease was primarily a result of the loss of the agency's only carrier for one of its specialty lines of business in 2018. This negative impact was partially offset by new commercial and personal lines business generated as a result of successful business development efforts and integration with the Bank.

Investment advisory income increased to \$8.1 million in 2018, compared to \$6.1 million in 2017, reflecting higher assets under management driven by the acquisition of HNP Capital in the second quarter of 2018 and growth in assets under management at Courier Capital following the acquisition of the assets of Robshaw & Julian in the third quarter of 2017.

We have made investments in limited partnerships, primarily small business investment companies, and account for these investments under the equity method. The income from these equity method investments fluctuates based on the maturity and performance of the underlying investments.

Income from derivative instruments, net primarily consists of income associated with interest rate swap products offered to commercial loan customers. The program was implemented in the third quarter of 2017. For the year ended December 31, 2018, income from derivative instruments, net increased \$841 thousand to \$972 thousand compared to \$131 thousand during the year ended December 31, 2017, as a result of an increase in the number and value of transactions executed in 2018.

During the year ended December 31, 2018, we recognized net losses of \$127 thousand from the sale of available for sale ("AFS") securities with an amortized cost totaling \$30.0 million. The securities sold were comprised of seven agency securities and 21 mortgage backed securities. During the year ended December 31, 2017, we recognized net gains of \$1.3 million from the sale of AFS securities with an amortized cost totaling \$48.8 million. The securities sold were comprised of 11 agency securities, six mortgage backed securities and one asset backed security. The amount and timing of our sale of investment securities is dependent on a number of factors, including our prudent efforts to realize gains while managing duration, premium and credit risk.

For the year ended December 31, 2017, we recognized a \$1.2 million non-cash fair value adjustment of the contingent consideration liability related to the 2014 acquisition of SDN. For additional discussion related to the 2017 fair value adjustment of the contingent consideration liability see Note 7, Goodwill and Other Intangible Assets, of the notes to consolidated financial statements.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Noninterest Expense

The following table summarizes our noninterest expense for the years ended December 31 (in thousands):

	2018	2017	2016
Salaries and employee benefits	\$ 54,643	\$ 48,675	\$ 45,215
Occupancy and equipment	17,338	16,293	14,529
Professional services	3,912	4,083	5,782
Computer and data processing	5,122	4,935	4,451
Supplies and postage	2,032	2,003	2,047
FDIC assessments	1,975	1,817	1,735
Advertising and promotions	3,582	2,171	2,097
Amortization of intangibles	1,257	1,170	1,249
Goodwill impairment	2,350	1,575	-
Other	8,665	7,791	7,566
Total noninterest expense	\$ 100,876	\$ 90,513	\$ 84,671

Salaries and employee benefits increased by \$6.0 million, or 12%, when comparing 2018 to 2017. The increase was primarily due to investments in Bank personnel, the acquisition of the assets of Robshaw & Julian in the third quarter of 2017, the acquisition of HNP Capital in the second quarter of 2018, compensation to employees not covered by existing incentive programs and \$1.5 million of non-recurring expense incurred in connection with employee retirements and severance.

Occupancy and equipment increased by \$1.0 million, or 6%, when comparing 2018 to 2017, primarily as a result of investments in software and facilities.

Advertising and promotions expense increased \$1.4 million, or 65%, when comparing 2018 to 2017, as a result of the new Five Star Bank brand campaign launched in February 2018.

We recognized goodwill impairments of \$2.4 million in the fourth quarter of 2018 and \$1.6 million in the second quarter of 2017, both related to the 2014 acquisition of SDN. For additional discussion related to the goodwill impairment see Note 7, Goodwill and Other Intangible Assets, of the notes to consolidated financial statements.

The efficiency ratio for the year ended December 31, 2018 was 62.73% compared with 60.65% for 2017. The higher efficiency ratio is primarily a result of higher noninterest expenses associated with our organic growth initiatives. The efficiency ratio provides a ratio of operating expenses to operating income. The efficiency ratio is calculated by dividing total noninterest expense by net revenue, defined as the sum of tax-equivalent net interest income and noninterest income before net gains on investment securities. An increase in the efficiency ratio indicates that more resources are being utilized to generate the same volume of income, while a decrease indicates a more efficient allocation of resources. The efficiency ratio, a banking industry financial measure, is not required by GAAP. However, the efficiency ratio is used by management in its assessment of financial performance specifically as it relates to noninterest expense control. Management also believes such information is useful to investors in evaluating Company performance.

### Income Taxes

We recorded income tax expense of \$10.0 million for 2018, compared to \$9.9 million for 2017. Our effective tax rate was 20.2% for 2018 compared to 22.9% for 2017. The lower effective tax rate in 2018 was primarily a result of the TCJ Act. Effective tax rates are impacted by items of income and expense that are not subject to federal or state taxation. Our effective tax rates differ from statutory rates primarily due to the effect of interest income from tax-exempt securities, earnings on company owned life insurance, the 2017 non-cash fair value adjustment of the contingent consideration liability associated with the SDN acquisition, the 2018 and 2017 non-cash goodwill impairment charge related to SDN and, in 2017, the net impact of the TCJ Act. In addition, our effective tax rate for 2018 and 2017 reflects the New York State tax benefit generated by our real estate investment trust.



## MANAGEMENT'S DISCUSSION AND ANALYSIS

### **RESULTS OF OPERATIONS FOR THE YEARS ENDED DECEMBER 31, 2017 AND DECEMBER 31, 2016**

#### **Net Interest Income and Net Interest Margin**

Net interest income was \$112.6 million in 2017, compared to \$102.7 million in 2016. The taxable equivalent adjustments of \$3.2 million for 2017 and 2016 resulted in fully taxable equivalent net interest income of \$115.8 million in 2017 and \$105.9 million in 2016.

Net interest income on a taxable equivalent basis for 2017 increased \$9.9 million or 9%, compared to 2016. The increase was due to an increase in average interest-earning assets of \$339.5 million or 10% compared to 2016. The net interest margin of 3.21% for 2017 declined three-basis points compared to 3.24% in 2016. This decrease was a function of a five-basis point decrease in interest rate spread to 3.08% during 2017, partially offset by a two-basis point higher contribution from net free funds. The lower interest rate spread was a net result of a seven-basis point increase in the yield on earning assets and a 12-basis point increase in the cost of interest-bearing liabilities.

For the year ended December 31, 2017, the yield on average earning assets of 3.69% was seven-basis points higher than 2016. Loan yields increased four-basis points during 2017 to 4.22%. The yield on investment securities increased three-basis points during 2017 to 2.48%. Overall, the earning asset rate changes increased interest income by \$1.2 million during 2017 and a favorable volume variance increased interest income by \$13.7 million, which collectively drove a \$14.9 million increase in interest income.

Average interest-earning assets were \$3.61 billion for 2017, an increase of \$339.5 million or 10% from the prior year, with average loans up \$312.5 million, average securities up \$23.1 million and average federal funds sold and other interest-earning deposits up \$3.9 million. Average loans were \$2.52 billion for 2017, an increase of \$312.5 million or 14% from the prior year. The growth in average loans reflected increases in most loan categories, which in turn reflects the impact of our growth strategy, with commercial loans up \$169.1 million, residential real estate loans up \$34.1 million, and consumer loans up \$115.1 million, partially offset by a \$5.8 million decrease in residential real estate lines. Loans comprised 69.7% of average interest-earning assets during 2017 compared to 67.4% during 2016. Loans generally have significantly higher yields compared to securities and federal funds sold and interest-bearing deposits and, as such, have a more positive effect on the net interest margin. The yield on average loans was 4.22% for 2017, an increase of four basis points compared to 4.18% for 2016. The increase in the volume of average loans resulted in a \$13.2 million increase in interest income, in addition to a \$830 thousand increase due to the favorable rate variance. Average securities were \$1.09 billion for 2017, an increase of \$23.1 million or 2% from the prior year. Securities comprised 30.1% of average interest-earning assets in 2017 compared to 32.5% in 2016. The taxable equivalent yield on average securities was 2.48% in 2017 compared to 2.45% in 2016. The increase in the volume of average securities resulted in a \$531 thousand increase in interest income, in addition to a \$295 thousand increase due to the favorable rate variance.

For the year ended December 31, 2017, the cost of average interest-bearing liabilities of 0.61% was 12-basis points higher than 2016. The cost of average interest-bearing deposits increased eight-basis points to 0.45%, the cost of short-term borrowings increased 51-basis points to 1.16% in 2017 compared to 2016 and the cost of long-term borrowings decreased one-basis point to 6.32%. Overall, interest-bearing liability rate and volume increases resulted in \$5.0 million of higher interest expense.

Average interest-bearing liabilities of \$2.85 billion in 2017 were \$278.8 million or 11% higher than 2016. On average, interest-bearing deposits grew \$189.3 million, while noninterest-bearing demand deposits (a principal component of net free funds) were up \$41.5 million. The increase in average deposits was due to successful business development efforts. Overall, interest-bearing deposit rate and volume changes resulted in \$2.6 million of higher interest expense during 2017. Average short-term and long-term borrowings were \$377.5 million in 2017, \$89.5 million higher than in 2016. Overall, short and long-term borrowing rate and volume changes resulted in \$2.3 million of higher interest expense during 2017.

#### **Provision for Loan Losses**

The provision for loan losses was \$13.4 million for the year ended December 31, 2017 compared with \$9.6 million for 2016. The increase was primarily the result of growth in the loan portfolios.

#### **Noninterest Income**

Insurance income decreased by \$130 thousand, or 2%, to \$5.3 million during 2017. The decrease was primarily the result of commercial account non-renewals. These non-renewals have been partially replaced with several new, but smaller, commercial and personal accounts.

Investment advisory income increased to \$6.1 million in 2017, compared to \$5.2 million in 2016, reflecting higher assets under management driven by the acquisition of the assets of Robshaw & Julian and favorable market conditions.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Company owned life insurance decreased by \$1.0 million or 37% in 2017. The decrease was primarily due to \$911 thousand of non-recurring death benefit proceeds received by the Company in the first quarter of 2016.

We have made investments in limited partnerships, primarily small business investment companies, and account for these investments under the equity method. Income from investments in limited partnerships was \$110 thousand and \$300 thousand for the years ended December 31, 2017 and 2016, respectively. The income from these equity method investments fluctuates based on the maturity and performance of the underlying investments.

During the year ended December 31, 2017, we recognized net gains of \$1.3 million from the sale of AFS securities with an amortized cost totaling \$48.8 million. The securities sold were comprised of 11 agency securities, six mortgage backed securities and one asset backed security. During the year ended December 31, 2016, we recognized gains of \$2.7 million from the sale of AFS securities with an amortized cost totaling \$92.6 million. The securities sold were comprised of 25 agency securities and 22 mortgage backed securities. The amount and timing of net gains on investment securities is dependent on a number of factors, including our prudent efforts to realize gains while managing duration, premium and credit risk.

For each of the years ended December 31, 2017 and 2016, we recognized a \$1.2 million non-cash fair value adjustment of the contingent consideration liability related to the SDN acquisition. For additional discussion related to the 2017 fair value adjustment of the contingent consideration liability see Note 7, Goodwill and Other Intangible Assets, of the notes to consolidated financial statements.

### Noninterest Expense

Salaries and employee benefits increased by \$3.5 million or 8% when comparing 2017 to 2016. The increase was primarily due to our organic growth initiatives and higher healthcare costs largely attributable to the high cost of specialty pharmaceuticals.

Occupancy and equipment increased by \$1.8 million or 12% when comparing 2017 to 2016. The incremental expenses reflect the 2016 and 2017 financial solution center openings and the relocation of our Rochester regional administration center.

Professional services expense of \$4.1 million in 2017 decreased \$1.7 million or 29% from 2016. The decrease was primarily due to the Company's 2016 proxy contest, which increased our need for professional services during that year.

Computer and data processing increased by \$484 thousand or 11% when comparing 2017 to 2016. We continue to invest in information technology to both maintain and improve our infrastructure.

We recognized \$1.6 million of goodwill impairment in the second quarter of 2017 related to the SDN acquisition. For additional discussion related to the goodwill impairment see Note 7, Goodwill and Other Intangible Assets, of the notes to consolidated financial statements.

The efficiency ratio for the year ended December 31, 2017 was 60.65% compared with 60.95% for 2016.

### Income Taxes

We recorded income tax expense of \$9.9 million for 2017, compared to \$12.2 million for 2016. Our effective tax rate was 22.9% for 2017 compared to 27.7% for 2016. The decrease in income tax expense and lower effective tax rate was the result of an estimated \$2.9 million reduction in income tax expense due to the TCJ Act, primarily driven by a revaluation adjustment to our net deferred tax liability. Effective tax rates are impacted by items of income and expense that are not subject to federal or state taxation. Our effective tax rates differ from the statutory rates primarily due to the effect of interest income from tax-exempt securities, earnings on company owned life insurance, the non-cash fair value adjustment of the contingent consideration liability associated with the SDN acquisition and the 2017 non-cash goodwill impairment charge related to SDN.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### ANALYSIS OF FINANCIAL CONDITION

#### OVERVIEW

At December 31, 2018, we had total assets of \$4.31 billion, an increase of 5% from \$4.11 billion as of December 31, 2017, largely attributable to organic loan growth. Net loans were \$3.05 billion as of December 31, 2018, up \$352.3 million or 13%, when compared to \$2.70 billion as of December 31, 2017. The increase in net loans was primarily attributable to organic growth in the commercial, residential real estate loans and consumer indirect portfolios. Non-performing assets totaled \$7.4 million as of December 31, 2018, down \$5.3 million from a year ago. Total deposits amounted to \$3.37 billion as of December 31, 2018, up \$156.7 million or 5%, compared to December 31, 2017. As of December 31, 2018, borrowed funds totaled \$508.7 million, compared to \$485.3 million as of December 31, 2017. Common book value per common share was \$23.79 and \$22.85 as of December 31, 2018 and 2017, respectively. As of December 31, 2018, our total shareholders' equity was \$396.3 million compared to \$381.2 million a year earlier.

#### INVESTING ACTIVITIES

The following table summarizes the composition of our available for sale and held to maturity securities portfolios (in thousands).

	Investment Securities Portfolio Composition At December 31,					
	2018		2017		2016	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value
<b>Securities available for sale:</b>						
U.S. Government agency and government-sponsored enterprise securities	\$ 155,102	\$ 152,028	\$ 163,025	\$ 161,889	\$ 187,325	\$ 186,268
<b>Mortgage-backed securities:</b>						
Agency mortgage-backed securities	300,480	292,882	365,433	362,108	356,667	352,643
Non-Agency mortgage-backed securities	-	767	-	976	-	824
<b>Asset-backed securities</b>						
Total available for sale securities	455,582	445,677	528,458	524,973	543,992	539,926
<b>Securities held to maturity:</b>						
State and political subdivisions	234,845	234,510	283,557	285,212	305,248	305,759
Mortgage-backed securities	211,736	205,071	232,909	227,771	238,090	234,232
Total held to maturity securities	446,581	439,581	516,466	512,983	543,338	539,991
Total investment securities	<u>\$ 902,163</u>	<u>\$ 885,258</u>	<u>\$ 1,044,924</u>	<u>\$ 1,037,956</u>	<u>\$ 1,087,330</u>	<u>\$ 1,079,917</u>

Our investment policy is contained within our overall Asset-Liability Management and Investment Policy. This policy dictates that investment decisions will be made based on the safety of the investment, liquidity requirements, potential returns, cash flow targets, need for collateral and desired risk parameters. In pursuing these objectives, we consider the ability of an investment to provide earnings consistent with factors of quality, maturity, marketability, pledgeable nature and risk diversification. Our Treasurer, guided by ALCO, is responsible for investment portfolio decisions within the established policies.

Our AFS investment securities portfolio decreased \$79.3 million to \$445.7 million at December 31, 2018 from \$525.0 million at December 31, 2017. Our AFS portfolio had a net unrealized loss totaling \$9.9 million at December 31, 2018 compared to a net unrealized loss of \$3.5 million at December 31, 2017. The fair value of most of the investment securities in the AFS portfolio fluctuate as market interest rates change.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Impairment Assessment

We review investment securities on an ongoing basis for the presence of other-than-temporary impairment (“OTTI”) with formal reviews performed quarterly. Declines in the fair value of held to maturity and available for sale securities below their cost that are deemed to be other than temporary are reflected in earnings as realized losses to the extent the impairment is related to credit losses or the security is intended to be sold or will be required to be sold. The amount of the impairment related to non-credit related factors is recognized in other comprehensive income. Evaluating whether the impairment of a debt security is other than temporary involves assessing i.) the intent to sell the debt security or ii.) the likelihood of being required to sell the security before the recovery of its amortized cost basis. In determining whether the OTTI includes a credit loss, we use our best estimate of the present value of cash flows expected to be collected from the debt security considering factors such as: a.) the length of time and the extent to which the fair value has been less than the amortized cost basis, b.) adverse conditions specifically related to the security, an industry, or a geographic area, c.) the historical and implied volatility of the fair value of the security, d.) the payment structure of the debt security and the likelihood of the issuer being able to make payments that increase in the future, e.) failure of the issuer of the security to make scheduled interest or principal payments, f.) any changes to the rating of the security by a rating agency, and g.) recoveries or additional declines in fair value subsequent to the balance sheet date.

As of December 31, 2018, we do not have the intent to sell any of our securities in a loss position and we believe that it is not likely that we will be required to sell any such securities before the anticipated recovery of amortized cost. The unrealized losses are largely due to increases in market interest rates over the yields available at the time the underlying securities were purchased. The fair value is expected to recover as the bonds approach their maturity date, repricing date or if market yields for such investments decline. We do not believe any of the securities in a loss position are impaired due to reasons of credit quality. Accordingly, as of December 31, 2018, we concluded that unrealized losses on our investment securities are temporary and no further impairment loss has been realized in our consolidated statements of income. The following discussion provides further details of our assessment of the securities portfolio by investment category.

**U.S. Government Agencies and Government Sponsored Enterprises (“GSE”).** As of December 31, 2018, there were 44 securities in an unrealized loss position in the U.S. Government agencies and GSE portfolio with unrealized losses totaling \$3.1 million. Of these, 44 were in an unrealized loss position for 12 months or longer and had an aggregate fair value of \$152.0 million and unrealized losses of \$3.1 million. The decline in fair value is attributable to changes in interest rates, and not credit quality, and because we do not have the intent to sell these securities and it is likely that we will not be required to sell the securities before their anticipated recovery, we do not consider these securities to be other-than-temporarily impaired at December 31, 2018.

**State and Political Subdivisions.** As of December 31, 2018, the state and political subdivisions, i.e. municipal securities, portfolio totaled \$234.8 million, all of which was classified as held to maturity (“HTM”). As of that date, there were 297 securities in an unrealized loss position in the municipal securities portfolio with unrealized losses totaling \$1.2 million. Of these, 172 were in an unrealized loss position for 12 months or longer and had an aggregate fair value of \$49.5 million and unrealized losses of \$1.1 million.

The decline in fair value is attributable to changes in interest rates, and not credit quality, and because we do not have the intent to sell these securities and it is not likely that we will be required to sell the securities before their anticipated recovery, we do not consider these securities to be other-than-temporarily impaired at December 31, 2018.

**Agency Mortgage-backed Securities.** With the exception of the non-Agency mortgage-backed securities (“non-Agency MBS”) discussed below, all of the mortgage-backed securities held by us as of December 31, 2018, were issued by U.S. Government sponsored entities and agencies (“Agency MBS”), primarily FNMA and FHLMC. The contractual cash flows of our Agency MBS are guaranteed by FNMA, FHLMC or GNMA. The GNMA mortgage-backed securities are backed by the full faith and credit of the U.S. Government.

As of December 31, 2018, there were 99 securities in the AFS Agency MBS portfolio that were in an unrealized loss position with unrealized losses totaling \$7.7 million. Of these, 98 were in an unrealized loss position for 12 months or longer and had an aggregate fair value of \$286.3 million and unrealized losses of \$7.7 million. As of December 31, 2018, there were 131 securities in the HTM Agency MBS portfolio that were in an unrealized loss position totaling \$6.7 million. Of these, 121 were in an unrealized loss position for 12 months or longer and had an aggregate fair value of \$185.0 million and unrealized losses of \$6.6 million.

Given the high credit quality inherent in Agency MBS, we do not consider any of the unrealized losses as of December 31, 2018 on such Agency MBS to be credit related or other-than-temporary. As of December 31, 2018, we did not intend to sell any Agency MBS that were in an unrealized loss position, all of which were performing in accordance with their terms.

**Non-Agency Mortgage-backed Securities.** Our non-Agency MBS portfolio consists of positions in one privately issued whole loan collateralized mortgage obligations with a fair value and net unrealized gain of \$767 thousand as of December 31, 2018. As of that date, the one non-Agency MBS was rated below investment grade. This security was not in an unrealized loss position.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

**Other Investments.** As a member of the FHLB, the Bank is required to hold FHLB stock. The amount of required FHLB stock is based on the Bank's asset size and the amount of borrowings from the FHLB. We have assessed the ultimate recoverability of our FHLB stock and believe that no impairment currently exists. As a member of the FRB system, we are required to maintain a specified investment in FRB stock based on a ratio relative to our capital. At December 31, 2018, our ownership of FHLB and FRB stock totaled \$20.3 million and \$6.1 million, respectively, and is included in other assets and recorded at cost, which approximates fair value.

### LENDING ACTIVITIES

Total loans were \$3.09 billion at December 31, 2018, an increase of \$351.6 million or 13% from December 31, 2017. Commercial loans increased \$256.8 million and represented 49.1% of total loans at the end of 2018. Consumer loans increased \$94.8 million to represent 50.9% of total loans at December 31, 2018. The composition of our loan portfolio, excluding loans held for sale and including net unearned income and net deferred fees and costs, is summarized as follows (in thousands):

	Loan Portfolio Composition At December 31,									
	2018		2017		2016		2015		2014	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Commercial business	\$ 557,861	18.1%	\$ 450,326	16.5%	\$ 349,547	14.9%	\$ 313,758	15.0%	\$ 267,409	14.0%
Commercial mortgage	958,194	31.0	808,908	29.6	670,058	28.6	566,101	27.2	475,092	24.8
Total commercial	1,516,055	49.1	1,259,234	46.1	1,019,605	43.5	879,859	42.2	742,501	38.8
Residential real estate loans	524,155	17.0	465,283	17.0	427,937	18.3	381,074	18.3	357,187	18.7
Residential real estate lines	109,718	3.6	116,309	4.3	122,555	5.2	127,347	6.1	129,529	6.8
Consumer indirect	919,917	29.8	876,570	32.0	752,421	32.2	676,940	32.5	661,673	34.6
Other consumer	16,753	0.5	17,621	0.6	17,643	0.8	18,542	0.9	21,112	1.1
Total consumer	1,570,543	50.9	1,475,783	53.9	1,320,556	56.5	1,203,903	57.8	1,169,501	61.2
Total loans	3,086,598	100.0%	2,735,017	100.0%	2,340,161	100.0%	2,083,762	100.0%	1,912,002	100.0%
Allowance for loan losses	33,914		34,672		30,934		27,085		27,637	
Total loans, net	<u>\$3,052,684</u>		<u>\$2,700,345</u>		<u>\$2,309,227</u>		<u>\$2,056,677</u>		<u>\$1,884,365</u>	

Commercial loans increased during 2018 as we continued our successful commercial business development efforts. The credit risk related to commercial loans is largely influenced by general economic conditions and the resulting impact on a borrower's operations or on the value of underlying collateral.

Factors that are important to managing overall credit quality are sound loan underwriting and administration, systematic monitoring of existing loans and commitments, effective loan review on an ongoing basis, early identification of potential problems, an appropriate allowance for loan losses, and sound nonaccrual and charge off policies.

An active credit risk management process is used for commercial loans to further ensure that sound and consistent credit decisions are made. Credit risk is controlled by detailed underwriting procedures, comprehensive loan administration, and periodic review of borrowers' outstanding loans and commitments. Borrower relationships are formally reviewed and graded on an ongoing basis for early identification of potential problems. Further analyses by customer, industry, and geographic location are performed to monitor trends, financial performance, and concentrations.

We participate in various lending programs in which guarantees are supplied by U.S. government agencies, such as the SBA, U.S. Department of Agriculture, Rural Economic and Community Development and Farm Service Agency, among others. As of December 31, 2018, the principal balance of such loans (included in commercial loans) was \$44.7 million and the guaranteed portion amounted to \$28.4 million. Most of these loans were guaranteed by the SBA.

Commercial business loans were \$557.9 million at the end of 2018, up \$107.6 million or 24% since the end of 2017, and comprised 18.1% of total loans outstanding at December 31, 2018, compared to 16.5% at December 31, 2017. We typically originate business loans of up to \$15.0 million for small to mid-sized businesses in our market area for working capital, equipment financing, inventory financing, accounts receivable financing, or other general business purposes. Loans of this type are in a diverse range of industries. As of December 31, 2018, commercial business SBA loans accounted for a total of \$32.2 million or 6% of our commercial business loan portfolio.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Commercial mortgage loans totaled \$958.2 million at December 31, 2018, up \$149.3 million or 18% from December 31, 2017, and comprised 31.0% of total loans, compared to 29.6% at December 31, 2017. Commercial mortgage loans include both owner occupied and non-owner occupied commercial real estate loans. Approximately 28% and 35% of our commercial mortgage portfolio at December 31, 2018 and 2017, respectively, was owner occupied commercial real estate. The majority of our commercial real estate loans are secured by office buildings, manufacturing facilities, distribution/warehouse facilities, and retail centers, which are generally located in our local market area. As of December 31, 2018, commercial mortgage SBA loans accounted for a total of \$8.8 million or 1% of our commercial mortgage loan portfolio.

We determine our current lending standards for commercial real estate and real estate construction lending by property type and specifically address many criteria, including: maximum loan amounts, maximum loan-to-value ("LTV"), requirements for pre-leasing or pre-sales, minimum debt-service coverage ratios, minimum borrower equity, and maximum loan to cost. Currently, the maximum standard for LTV is 85%, with lower limits established for certain higher risk types, such as raw land which has a 65% LTV maximum.

Consumer loans totaled \$1.57 billion at December 31, 2018, up \$94.8 million or 6% compared to 2017, and represented 50.9% of the 2018 year-end loan portfolio versus 53.9% at year-end 2017. Loans in this classification include residential real estate loans, residential real estate lines, indirect consumer and other consumer installment loans. Credit risk for these types of loans is generally influenced by general economic conditions, the characteristics of individual borrowers, and the nature of the loan collateral. Risks of loss are generally on smaller average balances per loan spread over many borrowers. Once charged off, there is usually less opportunity for recovery on these smaller retail loans. Credit risk is primarily controlled by reviewing the creditworthiness of the borrowers, monitoring payment histories, and taking appropriate collateral and guaranty positions.

Residential real estate portfolios include conventional first lien mortgages and home equity loans and lines of credit. For conventional first lien mortgages, we generally limit the maximum loan to 85% of collateral value without credit enhancement (e.g. personal mortgage insurance). A portion of our fixed-rate conventional mortgage loans are sold in the secondary market with servicing rights retained. Our conventional mortgage products continue to be underwritten using FHLMC secondary marketing guidelines. Our underwriting guidelines for home equity products include a combination of borrower FICO (credit score), the LTV of the property securing the loan and evidence of the borrower having sufficient income to repay the loan. Currently, for home equity products, the maximum acceptable LTV is 90%. The average FICO score for new home equity production was 766 and 763 during the years ended December 31, 2018 and 2017, respectively.

Residential real estate loans totaled \$524.1 million at the end of 2018, up \$58.9 million or 13% from the end of the prior year and comprised 17.0% of total loans outstanding at December 31, 2018 and December 31, 2017. As of December 31, 2018 and 2017, our residential real estate loan portfolio included \$6.5 million and \$8.6 million, respectively, of loans acquired during 2012 branch acquisitions. The residential real estate line portfolio amounted to \$109.7 million at December 31, 2018 down \$6.6 million or 6% compared to 2017 and represented 3.6% of the 2018 year-end loan portfolio versus 4.3% at year-end 2017. As of December 31, 2018 and 2017, our residential real estate line portfolio included \$7.6 million and \$9.5 million, respectively, of loans acquired during the 2012 branch acquisitions.

The residential real estate loans and lines portfolios had a weighted average LTV at origination of approximately 66% and 64% at December 31, 2018 and 2017, respectively. Approximately 89% and 88% of the loans and lines were first lien positions at December 31, 2018 and 2017, respectively.

Consumer indirect loans amounted to \$919.9 million at December 31, 2018 up \$43.3 million or 5% compared to 2017 and represented 29.8% of the 2018 year-end loan portfolio versus 32.0% at year-end 2017. The loans are primarily for the purchase of automobiles (both new and used) and light duty trucks primarily by individuals, but also by corporations and other organizations. The loans are originated through dealerships and assigned to us with terms that typically range from 36 to 84 months. During the year ended December 31, 2018, we originated \$394.8 million in indirect loans with a mix of approximately 39% new vehicles and 61% used vehicles. This compares with \$433.1 million in indirect loans with a mix of approximately 42% new vehicles and 58% used vehicles for the same period in 2017. We do business with over 450 franchised auto dealers located in Western, Central, and the Capital District of New York, and Northern and Central Pennsylvania. The average FICO score for indirect loan production was 729 and 734 during the years ended December 31, 2018 and 2017, respectively. Other consumer loans totaled \$16.8 million at December 31, 2018, down \$868 thousand or 5% compared to 2017, and represented less than one percent of the 2018 and 2017 year-end loan portfolio. Other consumer loans consist of personal loans (collateralized and uncollateralized) and deposit account collateralized loans.

Our loan portfolio is widely diversified by types of borrowers, industry groups, and market areas within our operating footprint. Significant loan concentrations are considered to exist for a financial institution when there are amounts loaned to numerous borrowers engaged in similar activities that would cause them to be similarly impacted by economic or other conditions. At December 31, 2018, no significant concentrations, as defined above, existed in our portfolio in excess of 10% of total loans.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

**Loans Held for Sale and Loan Servicing Rights.** Loans held for sale (not included in the loan portfolio composition table) were entirely comprised of residential real estate loans and totaled \$2.9 million and \$2.7 million as of December 31, 2018 and 2017, respectively.

We sell certain qualifying newly originated or refinanced residential real estate loans on the secondary market with servicing retained. Residential real estate loans serviced for others, which are not included in the consolidated statements of financial condition, amounted to \$171.5 million and \$163.3 million as of December 31, 2018 and 2017, respectively.

### Allowance for Loan Losses

The following table summarizes the activity in the allowance for loan losses (in thousands).

	<b>Loan Loss Analysis</b>				
	<b>Year Ended December 31,</b>				
	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Allowance for loan losses, beginning of year	\$ 34,672	\$ 30,934	\$ 27,085	\$ 27,637	\$ 26,736
Charge-offs:					
Commercial business	2,319	3,614	943	1,433	204
Commercial mortgage	1,020	10	385	895	304
Residential real estate loans	95	431	289	397	382
Residential real estate lines	142	106	104	199	148
Consumer indirect	10,850	10,164	8,748	9,156	10,004
Other consumer	1,308	926	607	878	972
Total charge-offs	15,734	15,251	11,076	12,958	12,014
Recoveries:					
Commercial business	509	416	447	212	201
Commercial mortgage	13	262	45	146	143
Residential real estate loans	159	130	174	114	76
Residential real estate lines	20	60	15	31	19
Consumer indirect	5,024	4,444	4,259	4,200	4,321
Other consumer	317	316	347	322	366
Total recoveries	6,042	5,628	5,287	5,025	5,126
Net charge-offs	9,692	9,623	5,789	7,933	6,888
Provision for loan losses	8,934	13,361	9,638	7,381	7,789
Allowance for loan losses, end of year	\$ 33,914	\$ 34,672	\$ 30,934	\$ 27,085	\$ 27,637
Net charge-offs to average loans	0.33%	0.38%	0.26%	0.40%	0.37%
Allowance to end of period loans	1.10%	1.27%	1.32%	1.30%	1.45%
Allowance to end of period non-performing loans	475%	277%	489%	321%	272%

The following table sets forth the allocation of the allowance for loan losses by loan category as of the dates indicated. The allocation is made for analytical purposes and is not necessarily indicative of the categories in which actual losses may occur. The total allowance is available to absorb losses from any segment of the loan portfolio (in thousands).

	<b>Allowance for Loan Losses by Loan Category</b>									
	<b>At December 31,</b>									
	<b>2018</b>		<b>2017</b>		<b>2016</b>		<b>2015</b>		<b>2014</b>	
	Loan Loss Allowance	Percentage of loans by category to total loans	Loan Loss Allowance	Percentage of loans by category to total loans	Loan Loss Allowance	Percentage of loans by category to total loans	Loan Loss Allowance	Percentage of loans by category to total loans	Loan Loss Allowance	Percentage of loans by category to total loans
Commercial business	\$ 14,312	18.1%	\$ 15,668	16.5%	\$ 7,225	14.9%	\$ 5,540	15.0%	\$ 5,621	14.0%
Commercial mortgage	5,219	31.0	3,696	29.6	10,315	28.6	9,027	27.2	8,122	24.8
Residential real estate loans	1,112	17.0	1,322	17.0	1,478	18.3	1,347	18.3	1,620	18.7
Residential real estate lines	210	3.6	180	4.3	303	5.2	345	6.1	435	6.8
Consumer indirect	12,572	29.8	13,415	32.0	11,311	32.2	10,458	32.5	11,383	34.6
Other consumer	489	0.5	391	0.6	302	0.8	368	0.9	456	1.1
Total	\$ 33,914	100.0%	\$ 34,672	100.0%	\$ 30,934	100.0%	\$ 27,085	100.0%	\$ 27,637	100.0%

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Management believes that the allowance for loan losses at December 31, 2018 is adequate to cover probable losses in the loan portfolio at that date. Factors beyond our control, however, such as general national and local economic conditions, can adversely impact the adequacy of the allowance for loan losses. As a result, no assurance can be given that adverse economic conditions or other circumstances will not result in increased losses in the portfolio or that the allowance for loan losses will be sufficient to meet actual loan losses. See Part I, Item 1A "Risk Factors" for the risks impacting this estimate. Management presents a quarterly review of the adequacy of the allowance for loan losses to the Audit Committee of our Board of Directors based on the methodology that is described in further detail in Part I, Item I "Business" under the section titled "Lending Activities." See also "Critical Accounting Estimates" for additional information on the allowance for loan losses.

### Non-performing Assets and Potential Problem Loans

The following table sets forth information regarding non-performing assets (in thousands):

	Non-performing Assets At December 31,				
	2018	2017	2016	2015	2014
Non-accruing loans:					
Commercial business	\$ 912	\$ 5,344	\$ 2,151	\$ 3,922	\$ 4,288
Commercial mortgage	1,586	2,623	1,025	947	3,020
Residential real estate loans	2,391	2,252	1,236	1,848	1,451
Residential real estate lines	255	404	372	235	206
Consumer indirect	1,989	1,895	1,526	1,467	1,169
Other consumer	-	2	7	13	11
Total non-accruing loans	7,133	12,520	6,317	8,432	10,145
Accruing loans contractually past due over 90 days	8	11	9	8	8
Total non-performing loans	7,141	12,531	6,326	8,440	10,153
Foreclosed assets	230	148	107	163	194
Total non-performing assets	<u>\$ 7,371</u>	<u>\$ 12,679</u>	<u>\$ 6,433</u>	<u>\$ 8,603</u>	<u>\$ 10,347</u>
Non-performing loans to total loans	0.23%	0.46%	0.27%	0.41%	0.53%
Non-performing assets to total assets	0.17%	0.31%	0.17%	0.25%	0.33%

Non-performing assets include non-performing loans, foreclosed assets and non-performing investment securities. Non-performing assets at December 31, 2018 were \$7.4 million, a decrease of \$5.3 million from the \$12.7 million balance at December 31, 2017. The primary component of non-performing assets is non-performing loans, which were \$7.1 million or 0.23% of total loans at December 31, 2018, a decrease of \$5.4 million from \$12.5 million or 0.46% of total loans at December 31, 2017.

Approximately \$491 thousand, or 7%, of the \$7.1 million in non-performing loans as of December 31, 2018 were current with respect to payment of principal and interest but were classified as non-accruing because repayment in full of principal and/or interest was uncertain. The amount of interest income forgone totaled \$294 thousand and \$481 thousand for non-accruing loans outstanding as of December 31, 2018 and 2017, respectively. Included in nonaccrual loans are troubled debt restructurings ("TDRs") of \$546 thousand and \$691 thousand at December 31, 2018 and 2017, respectively. We had one TDR of \$580 thousand that was accruing interest as of December 31, 2018 and one TDR of \$633 thousand that was accruing interest as of December 31, 2017.

Foreclosed assets consist of real property formerly pledged as collateral for loans, which we have acquired through foreclosure proceedings or acceptance of a deed in lieu of foreclosure. Foreclosed asset holdings represented three properties totaling \$230 thousand at December 31, 2018 and four properties totaling \$148 thousand at December 31, 2017.

Potential problem loans are loans that are currently performing, but information known about possible credit problems of the borrowers causes us to have concern as to the ability of such borrowers to comply with the present loan payment terms and may result in disclosure of such loans as nonperforming at some time in the future. These loans remain in a performing status due to a variety of factors, including payment history, the value of collateral supporting the credits, and/or personal or government guarantees. We consider loans classified as substandard, which continue to accrue interest, to be potential problem loans. We identified \$11.9 million and \$12.5 million in loans that continued to accrue interest which were classified as substandard as of December 31, 2018 and 2017, respectively.



## MANAGEMENT'S DISCUSSION AND ANALYSIS

### FUNDING ACTIVITIES

#### Deposits

The following table summarizes the composition of our deposits (dollars in thousands).

	At December 31,					
	2018		2017		2016	
	Amount	Percent	Amount	Percent	Amount	Percent
Noninterest-bearing demand	\$ 755,460	22.4%	\$ 718,498	22.4%	\$ 677,076	22.6%
Interest-bearing demand	622,482	18.5	634,203	19.8	581,436	19.4
Savings and money market	968,897	28.8	1,005,317	31.3	1,034,194	34.5
Time deposits < \$250,000	810,434	24.1	698,179	21.7	602,715	20.2
Time deposits of \$250,000 or more	209,634	6.2	153,977	4.8	99,801	3.3
Total deposits	<u>\$3,366,907</u>	<u>100.0%</u>	<u>\$3,210,174</u>	<u>100.0%</u>	<u>\$2,995,222</u>	<u>100.0%</u>

We offer a variety of deposit products designed to attract and retain customers, with the primary focus on building and expanding long-term relationships. At December 31, 2018, total deposits were \$3.37 billion, representing an increase of \$156.7 million for the year.

Nonpublic deposits, the largest component of our funding sources, totaled \$2.16 billion and \$2.07 billion at December 31, 2018 and 2017, respectively, and represented 64% and 65% of total deposits as of the end of each period, respectively. We have managed this segment of funding through a strategy of competitive pricing that minimizes the number of customer relationships that have only a single service high cost deposit account.

As an additional source of funding, we offer a variety of public (municipal) deposit products to the towns, villages, counties and school districts within our market. Public deposits generally range from 20% to 30% of our total deposits. There is a high degree of seasonality in this component of funding, because the level of deposits varies with the seasonal cash flows for these public customers. We maintain the necessary levels of short-term liquid assets to accommodate the seasonality associated with public deposits. Total public deposits were \$832.1 million and \$829.5 million at December 31, 2018 and December 31, 2017, respectively, and represented 25% and 26% of total deposits as of the end of each period, respectively. The increase in public deposits during 2018 was due largely to successful business development efforts.

We had no traditional brokered deposits at December 31, 2018 or December 31, 2017; however, we do participate in the CDARS and ICS programs, which enable depositors to receive FDIC insurance coverage for deposits otherwise exceeding the maximum insurable amount. Through these programs, deposits in excess of the maximum insurable amount are placed with multiple participating financial institutions. Prior to the Economic Growth Act enacted on May 14, 2018, all CDARS and ICS deposits were considered brokered deposits for regulatory reporting purposes. With the enactment of Economic Growth Act, reciprocal CDARS and ICS deposits, subject to certain restrictions, are no longer required to be reported as brokered deposits. CDARS deposits and ICS deposits, the majority of which are reciprocal, totaled \$224.9 million and \$149.6 million, respectively, at December 31, 2018, compared to \$159.2 million and \$147.3 million, respectively, at December 31, 2017, and collectively represented 11% and 9% of total deposits as of the end of each period, respectively.

#### Borrowings

The Company classifies borrowings as short-term or long-term in accordance with the original terms of the agreement. Outstanding borrowings are summarized as follows as of December 31 (in thousands):

	2018	2017
Short-term borrowings:		
Short-term FHLB borrowings	\$ 405,500	\$ 446,200
Other	64,000	-
Long-term borrowings:		
Subordinated notes, net	39,202	39,131
Total borrowings	<u>\$ 508,702</u>	<u>\$ 485,331</u>

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Short-term borrowings

Short-term FHLB borrowings have original maturities of less than one year and include overnight borrowings which we typically utilize to address short term funding needs as they arise. Short-term FHLB borrowings at December 31, 2018 consisted of \$200.0 million in overnight borrowings and \$205.5 million in short-term advances. Short-term FHLB borrowings at December 31, 2017 consisted of \$304.7 million in overnight borrowings and \$141.5 million in short-term advances. The FHLB borrowings are collateralized by securities from the Company's investment portfolio and certain qualifying loans. At December 31, 2018 and 2017, the Company's borrowings had a weighted average rate of 2.64% and 1.50%, respectively.

We have credit capacity with the FHLB and can borrow through facilities that include amortizing and term advances or repurchase agreements. We had approximately \$54.9 million of immediate credit capacity with the FHLB as of December 31, 2018. We had approximately \$671.5 million in secured borrowing capacity at the FRB discount window, none of which was outstanding at December 31, 2018. The FHLB and FRB credit capacity are collateralized by securities from our investment portfolio and certain qualifying loans. We had \$145 million of credit available under unsecured federal funds purchased lines with various banks as of December 31, 2018, with \$64.0 million outstanding at December 31, 2018. Additionally, we had approximately \$118.8 million of unencumbered liquid securities available for pledging.

The Parent has a revolving line of credit with a commercial bank allowing borrowings up to \$20.0 million in total as an additional source of working capital. At December 31, 2018, no amounts have been drawn on the line of credit.

The following table summarizes information relating to our short-term borrowings (dollars in thousands).

	At or for the Year Ended December 31,		
	2018	2017	2016
Year-end balance	\$ 469,500	\$ 446,200	\$ 331,500
Year-end weighted average interest rate	2.64%	1.50%	0.76%
Maximum outstanding at any month-end	\$ 477,100	\$ 446,900	\$ 358,700
Average balance during the year	\$ 394,679	\$ 338,392	\$ 248,938
Average interest rate for the year	2.11%	1.16%	0.65%

### Long-term borrowings

On April 15, 2015, we issued \$40.0 million of Subordinated Notes in a registered public offering. The Subordinated Notes bear interest at a fixed rate of 6.0% per year, payable semi-annually, for the first 10 years. From April 15, 2025 to the April 15, 2030 maturity date, the interest rate will reset quarterly to an annual interest rate equal to the then current three-month London Interbank Offered Rate (LIBOR) plus 3.944%, payable quarterly. The Subordinated Notes are redeemable by us at any quarterly interest payment date beginning on April 15, 2025 to maturity at par, plus accrued and unpaid interest. Proceeds, net of debt issuance costs of \$1.1 million, were \$38.9 million. The net proceeds from this offering were used for general corporate purposes, including but not limited to, contribution of capital to the Bank to support both organic growth and opportunistic acquisitions. The Subordinated Notes qualify as Tier 2 capital for regulatory purposes.

### Shareholders' Equity

Total shareholders' equity was \$396.3 million at December 31, 2018, an increase of \$15.1 million from \$381.2 million at December 31, 2017. Net income for the year increased shareholders' equity by \$39.5 million, which was partially offset by common and preferred stock dividends declared of \$16.7 million. Accumulated other comprehensive loss included in shareholders' equity increased \$9.4 million during the year due primarily to higher net unrealized losses on securities available for sale and the change in pension and post-retirement obligations. For detailed information on shareholders' equity, see Note 13, Shareholders' Equity, of the notes to consolidated financial statements. FII and the Bank are subject to various regulatory capital requirements. At December 31, 2018 both FII and the Bank exceeded all regulatory requirements. For detailed information on regulatory capital requirements, see Note 12, Regulatory Matters, of the notes to consolidated financial statements.

## LIQUIDITY AND CAPITAL RESOURCES

The objective of maintaining adequate liquidity is to ensure that we meet our financial obligations. These obligations include the withdrawal of deposits on demand or at their contractual maturity, the repayment of matured borrowings, the ability to fund new and existing loan commitments and the ability to take advantage of new business opportunities. We achieve liquidity by maintaining a strong base of core customer funds, maturing short-term assets, our ability to sell or pledge securities, lines-of-credit, and access to the financial and capital markets.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Liquidity for the Bank is managed through the monitoring of anticipated changes in loans, the investment portfolio, core deposits and wholesale funds. The strength of the Bank's liquidity position is a result of its base of core customer deposits. These core deposits are supplemented by wholesale funding sources that include credit lines with the other banking institutions, the FHLB and the FRB.

The primary sources of liquidity for FII are dividends from the Bank and access to financial and capital markets. Dividends from the Bank are limited by various regulatory requirements related to capital adequacy and earnings trends. The Bank relies on cash flows from operations, core deposits, borrowings and short-term liquid assets.

Cash and cash equivalents were \$102.8 million as of December 31, 2018, an increase of \$3.6 million from \$99.2 million as of December 31, 2017. Net cash provided by operating activities totaled \$65.1 million and the principal source of operating activity cash flow was net income adjusted for noncash income and expense items. Net cash used in investing activities totaled \$225.4 million, which included outflows of \$361.9 million for net loan originations and partially offset by inflows of \$143.2 million from net investment securities transactions. Net cash provided by financing activities of \$163.8 million was attributed to a \$156.7 million increase in deposits and a \$23.3 million increase in short-term borrowings, partly offset by \$16.4 million in dividend payments.

### Contractual Obligations and Other Commitments

The following table summarizes the maturities of various contractual obligations and other commitments (in thousands):

	At December 31, 2018				Total
	Within 1 year	Over 1 to 3 years	Over 3 to 5 Years	Over 5 years	
<b>On-Balance sheet:</b>					
Time deposits (1)	\$ 871,007	\$ 131,179	\$ 17,877	\$ 5	\$1,020,068
Supplemental executive retirement plans	389	783	711	374	2,257
Earn-out liabilities	2,528	1,140	-	-	3,668
Subordinated notes	-	-	-	40,000	40,000
<b>Off-Balance sheet:</b>					
Purchase commitments	\$ 359	\$ -	\$ -	\$ -	\$ 359
Limited partnership investments (2)	468	937	468	-	1,873
Commitments to extend credit (3)	687,875	-	-	-	687,875
Standby letters of credit (3)	11,083	763	132	-	11,978
Operating leases	2,495	4,497	3,497	29,232	39,721

- (1) Includes the maturity of time deposits amounting to \$100 thousand or more as follows: \$359.2 million in three months or less; \$103.4 million between three months and six months; \$124.3 million between six months and one year; and \$52.7 million over one year.
- (2) We have committed to capital investments in several limited partnerships of up to \$9.0 million, of which we have contributed \$7.2 million as of December 31, 2018, including \$711 thousand during 2018.
- (3) We do not expect all of the commitments to extend credit and standby letters of credit to be funded. Thus, the total commitment amounts do not necessarily represent our future cash requirements.

### Off-Balance Sheet Arrangements

With the exception of obligations in connection with our irrevocable loan commitments, operating leases and limited partnership investments as of December 31, 2018, we had no other off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors. For additional information on off-balance sheet arrangements, see Note 1, Summary of Significant Accounting Policies and Note 11, Commitments and Contingencies, in the notes to the accompanying consolidated financial statements.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Security Yields and Maturities Schedule

The following table sets forth certain information regarding the amortized cost ("Cost"), weighted average yields ("Yield") and contractual maturities of our debt securities portfolio as of December 31, 2018. Mortgage-backed securities are included in maturity categories based on their stated maturity date. Actual maturities may differ from the contractual maturities presented because borrowers may have the right to call or prepay certain investments. No tax-equivalent adjustments were made to the weighted average yields (dollars in thousands).

	Due in less than one year		Due from one to five years		Due after five years through ten years		Due after ten years		Total	
	Cost	Yield	Cost	Yield	Cost	Yield	Cost	Yield	Cost	Yield
<b>Available for sale debt securities:</b>										
U.S. Government agencies and government-sponsored enterprises	\$ 10,057	1.70%	\$ 83,801	2.27%	\$ 61,244	2.40%	\$ -	-%	\$ 155,102	2.28%
Mortgage-backed securities	30,296	1.60	59,945	2.16	126,446	2.53	83,793	2.35	300,480	2.31
	40,353	1.62	143,746	2.22	187,690	2.48	83,793	2.35	455,582	2.30
<b>Held to maturity debt securities:</b>										
State and political subdivisions	48,079	2.24	147,428	2.14	39,338	1.79	-	-	234,845	2.10
Mortgage-backed securities	-	-	2,457	2.30	37,416	1.79	171,863	2.48	211,736	2.36
	48,079	2.24	149,885	2.15	76,754	1.79	171,863	2.48	446,581	2.22
<b>Total investment securities</b>	<b>\$88,432</b>	<b>1.96%</b>	<b>\$293,631</b>	<b>2.18%</b>	<b>\$264,444</b>	<b>2.28%</b>	<b>\$255,656</b>	<b>2.44%</b>	<b>\$902,163</b>	<b>2.26%</b>

### Contractual Loan Maturity Schedule

The following table summarizes the contractual maturities of our loan portfolio at December 31, 2018. Loans, net of deferred loan origination costs, include principal amortization and non-accruing loans. Demand loans having no stated schedule of repayment or maturity and overdrafts are reported as due in one year or less (in thousands).

	Due in less than one year	Due from one to five years	Due after five years	Total
Commercial business	\$ 106,289	\$ 241,685	\$ 209,887	\$ 557,861
Commercial mortgage	230,540	501,743	225,911	958,194
Residential real estate loans	68,275	223,930	231,950	524,155
Residential real estate lines	2,776	6,774	100,168	109,718
Consumer indirect	364,293	555,624	-	919,917
Other consumer	8,743	7,751	259	16,753
Total loans	\$ 780,916	\$ 1,537,507	\$ 768,175	\$ 3,086,598

#### Loans maturing after one year:

With a predetermined interest rate	\$ 348,023	\$ 417,186	\$ 765,209
With a floating or adjustable rate	1,189,484	350,989	1,540,473
Total loans maturing after one year	\$ 1,537,507	\$ 768,175	\$ 2,305,682

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Capital Resources

The FRB has adopted a system using risk-based capital guidelines to evaluate the capital adequacy of bank holding companies on a consolidated basis. The final rules implementing the Basel Committee on Banking Supervision's ("BCBS") capital guidelines for U.S. banks became effective for the Company on January 1, 2015, with full compliance with all of the final requirements phased in over a multi-year schedule, to be fully phased-in by January 1, 2019. As of December 31, 2018, the Company's capital levels remained characterized as "well-capitalized" under the new rules. We continue to evaluate the potential impact that regulatory rules may have on our liquidity and capital management strategies, including Basel III and those required under the Dodd-Frank Act. See Note 12, Regulatory Matters of the notes to consolidated financial statements and the "Basel III Capital Rules" section below for further discussion. The following table reflects the Company's ratios and their components as of December 31 (in thousands):

	2018	2017
Common shareholders' equity	\$ 378,965	\$ 363,848
Less: Goodwill and other intangible assets	73,291	70,413
Net unrealized loss on investment securities <sup>(1)</sup>	(7,769)	(3,275)
Hedging derivative instruments	(276)	-
Net periodic pension & postretirement benefits plan adjustments	(13,236)	(8,641)
Other	-	-
Common equity Tier 1 ("CET1") capital	326,955	305,351
Plus: Preferred stock	17,328	17,329
Less: Other	-	-
Tier 1 Capital	344,283	322,680
Plus: Qualifying allowance for loan losses	33,914	34,672
Subordinated Notes	39,202	39,131
Total regulatory capital	\$ 417,399	\$ 396,483
Adjusted average total assets (for leverage capital purposes)	\$ 4,218,972	\$ 3,967,749
Total risk-weighted assets	\$ 3,371,541	\$ 3,005,655

### Regulatory Capital Ratios

Tier 1 leverage (Tier 1 capital to adjusted average assets)	8.16%	8.13%
CET1 capital (CET1 capital to total risk-weighted assets)	9.70	10.16
Tier 1 capital (Tier 1 capital to total risk-weighted assets)	10.21	10.74
Total risk-based capital (Total regulatory capital to total risk-weighted assets)	12.38	13.19

<sup>(1)</sup> Includes unrealized gains and losses related to the Company's reclassification of available for sale investment securities to the held to maturity category.

### Basel III Capital Rules

In July 2013, the FRB and the FDIC approved the final rules implementing the BCBS's capital guidelines for U.S. banks. Under the final rules, minimum requirements will increase for both the quantity and quality of capital held by the Company. The rules include a new common equity Tier 1 capital to risk-weighted assets minimum ratio of 4.5%, raise the minimum ratio of Tier 1 capital to risk-weighted assets from 4.0% to 6.0%, require a minimum ratio of total capital to risk-weighted assets of 8.0%, and require a minimum Tier 1 leverage ratio of 4.0%. A new capital conservation buffer is also established above the regulatory minimum capital requirements. This capital conservation buffer will be phased in beginning January 1, 2016 at 0.625% of risk-weighted assets and will increase each subsequent year by an additional 0.625% until reaching its final level of 2.5% on January 1, 2019. Strict eligibility criteria for regulatory capital instruments were also implemented under the final rules. The final rules also revise the definition and calculation of Tier 1 capital, total capital, and risk-weighted assets.

The phase-in period for the final rules became effective for the Company on January 1, 2015, with full compliance with all of the final rules' requirements phased in over a multi-year schedule, to be fully phased-in by January 1, 2019. As of December 31, 2018, the Company's capital levels remained characterized as "well-capitalized" under the new rules.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### CRITICAL ACCOUNTING ESTIMATES

Our consolidated financial statements are prepared in accordance with GAAP and are consistent with predominant practices in the financial services industry. Application of critical accounting policies, which are those policies that management believes are the most important to our financial position and results, requires management to make estimates, assumptions, and judgments that affect the amounts reported in the consolidated financial statements and accompanying notes and are based on information available as of the date of the financial statements. Future changes in information may affect these estimates, assumptions and judgments, which, in turn, may affect amounts reported in the financial statements.

We have numerous accounting policies, of which the most significant are presented in Note 1, Summary of Significant Accounting Policies, of the notes to 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, liabilities, revenues and expenses are reported in the consolidated financial statements and how those reported amounts are determined. Based on the sensitivity of financial statement amounts to the methods, assumptions, and estimates underlying those amounts, management has determined that the accounting policies with respect to the allowance for loan losses, valuation of goodwill and deferred tax assets, and accounting for defined benefit plans require particularly subjective or complex judgments important to our financial position and results of operations, and, as such, are considered to be critical accounting policies as discussed below. These estimates and assumptions are based on management's best estimates and judgment and are evaluated on an ongoing basis using historical experience and other factors, including the current economic environment. We adjust these estimates and assumptions when facts and circumstances dictate. Illiquid credit markets and volatile equity have combined with declines in consumer spending to increase the uncertainty inherent in these estimates and assumptions. As future events cannot be determined with precision, actual results could differ significantly from our estimates.

#### Adequacy of the Allowance for Loan Losses

The allowance for loan losses represents management's estimate of probable credit 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 and the use of subjective measurements including management's assessment of the internal risk classifications of loans, changes in the nature of the loan portfolio, industry concentrations, existing economic conditions, the fair value of underlying collateral, and other qualitative and quantitative factors which could affect probable credit losses. Because current economic conditions and borrower strength can change, and future events are inherently difficult to predict, the anticipated amount of estimated loan losses, and therefore the appropriateness of the allowance for loan losses, could change significantly. As an integral part of their examination process, various regulatory agencies also review the allowance for loan losses. Such agencies may require additions to the allowance for loan losses or may require that certain loan balances be charged off or downgraded into criticized loan categories when their credit evaluations differ from those of management, based on their judgments about information available to them at the time of their examination. We believe the level of the allowance for loan losses is appropriate as recorded in the consolidated financial statements.

For additional discussion related to our accounting policies for the allowance for loan losses, see the sections titled "Allowance for Loan Losses" in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 1, Summary of Significant Accounting Policies, of the notes to consolidated financial statements.

#### Valuation of Goodwill

Goodwill represents the excess of the purchase price over the fair value of net assets acquired in accordance with the purchase method of accounting for business combinations. Goodwill has an indefinite useful life and is not amortized but is tested for impairment. GAAP requires goodwill to be tested for impairment at our reporting unit level on an annual basis and more frequently if events or circumstances indicate that there may be impairment. We test goodwill for impairment as of October 1<sup>st</sup> of each year.

Impairment exists when a reporting unit's carrying value of goodwill exceeds its fair value. In testing goodwill for impairment, GAAP permits us to first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. If, after assessing the totality of events and circumstances, we determine it is not more likely than not that the fair value of a reporting unit is less than its carrying value, no further testing is performed. However, if we conclude otherwise, we would then be required to perform a goodwill impairment test by comparing the fair value of the reporting unit with its carrying value. If the carrying value of the reporting unit exceeds its fair value, a goodwill impairment charge is recognized for the difference, but not to exceed the amount of goodwill allocated to the reporting unit.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Valuation of Deferred Tax Assets and Liabilities

The determination of deferred tax expense or benefit is based on changes in the carrying amounts of assets and liabilities that generate temporary differences. The carrying value of our net deferred tax assets or liabilities assumes that we will be able to generate sufficient future taxable income based on estimates and assumptions (after consideration of historical taxable income as well as tax planning strategies). If these estimates and related assumptions change, we may be required to record valuation allowances against our deferred tax assets and liabilities resulting in additional income tax expense or benefit in the consolidated statements of income. We evaluate deferred tax assets and liabilities on a quarterly basis and assess the need for a valuation allowance, if any. A valuation allowance is established when management believes that it is more likely than not that some portion of its deferred tax assets and liabilities will not be realized. Changes in valuation allowance from period to period are included in our tax provision in the period of change. For additional discussion related to our accounting policy for income taxes see Note 16, Income Taxes, of the notes to consolidated financial statements.

### Defined Benefit Pension Plan

We have a defined benefit pension plan covering substantially all employees. For employees hired prior to December 31, 2006, who met participation requirements on or before January 1, 2008 ("Tier 1 Participant"), the benefits are generally based on years of service and the employee's highest average compensation during five consecutive years of employment. For eligible employees who were hired on and after January 1, 2007 ("Tier 2 Participant"), the benefits are generally based on a cash balance benefit formula. Assumptions are made concerning future events that will determine the amount and timing of required benefit payments, funding requirements and defined benefit pension expense. The major assumptions are the weighted average discount rate used in determining the current benefit obligation, the weighted average expected long-term rate of return on plan assets, the rate of compensation increase and the estimated mortality rate. The weighted average discount rate was based upon the projected benefit cash flows and the market yields of high grade corporate bonds that are available to pay such cash flows as of the measurement date, December 31. The weighted average expected long-term rate of return is estimated based on current trends experienced by the assets in the plan as well as projected future rates of return on those assets and reasonable actuarial assumptions for long term inflation, and the real and nominal rate of investment return for a specific mix of asset classes. The current target asset allocation model for the plans is detailed in Note 18 to the consolidated financial statements. The expected returns on these various asset categories are blended to derive one long-term return assumption. The assets are invested in certain collective investment and mutual funds, common stocks, U.S. Treasury and other U.S. government agency securities, and corporate and municipal bonds and notes. The rate of compensation increase is based on reviewing the compensation increase practices of other plan sponsors in similar industries and geographic areas as well as the expectation of future increases. Mortality rate assumptions are based on mortality tables published by third-parties such as the Society of Actuaries ("SOA"), considering other available information including historical data as well as studies and publications from reputable sources. We review the pension plan assumptions on an annual basis with our actuarial consultants to determine if the assumptions are reasonable and adjust the assumptions to reflect changes in future expectations.

The assumptions used to calculate 2018 expense for the defined benefit pension plan were a weighted average discount rate of 3.49%, a weighted average long-term rate of return on plan assets of 6.50% and a rate of compensation increase of 3.00%. Defined benefit pension expense in 2019 is expected to increase to \$2.7 million from the \$1.2 million recorded in 2018, primarily driven by a decrease in the expected return on assets, driven by overall lower plan asset values, and an increase in the amount of accumulated actuarial losses to be amortized.

Due to the long-term nature of pension plan assumptions, actual results may differ significantly from the actuarial-based estimates. Differences resulting in actuarial gains or losses are required to be recorded in shareholders' equity as part of accumulated other comprehensive loss and amortized to defined benefit pension expense in future years. For 2018, the actual return on plan assets in the qualified defined benefit pension plan was a loss of \$4.9 million, compared to an expected return on plan assets of \$5.3 million. Total pretax losses recognized in accumulated other comprehensive loss at December 31, 2018 were \$20.5 million for the defined benefit pension plan. Actuarial pretax net losses recognized in other comprehensive income (loss) for the year ended December 31, 2018 were \$6.8 million for the defined benefit pension plan.

Defined benefit pension expense is recorded in "Salaries and employee benefits" expense on the consolidated statements of income.

### RECENT ACCOUNTING PRONOUNCEMENTS

See Note 1, Summary of Significant Accounting Policies - Recent Accounting Pronouncements, in the notes to consolidated financial statements for a discussion of recent accounting pronouncements.

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**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

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**Asset-Liability Management**

The principal objective of our interest rate risk management is to evaluate the interest rate risk inherent in assets and liabilities, determine the appropriate level of risk to us given our business strategy, operating environment, capital and liquidity requirements and performance objectives, and manage the risk consistent with the guidelines approved by our Board of Directors. Management is responsible for reviewing with the Board of Directors our activities and strategies, the effect of those strategies on net interest income, the fair value of the portfolio and the effect that changes in interest rates will have on the portfolio and exposure limits. Management has developed an Asset-Liability Management and Investment Policy that meets the strategic objectives and regularly reviews the activities of the Bank.

**Portfolio Composition**

Our balance sheet assets are a mix of fixed and variable rate assets with consumer indirect loans, commercial loans, and MBSs comprising a significant portion of our assets. Our consumer indirect loan portfolio comprised 21% of assets and is primarily fixed rate loans with relatively short durations. Our commercial loan portfolio totaled 35% of assets and is a combination of fixed and variable rate loans, lines and mortgages. The MBS portfolio, including collateralized mortgages obligations, totaled 12% of assets with durations averaging three to five years.

Our liabilities are comprised primarily of deposits, which account for 86% of total liabilities. Of these deposits, the majority, or 50%, is in nonpublic variable rate and noninterest bearing products including demand (both noninterest and interest-bearing), savings and money market accounts. In addition, fixed rate nonpublic certificate of deposit products comprise 25% of total deposits. The Bank also has a significant amount of public deposits, which represented 25% of total deposits as of December 31, 2018.

**Net Interest Income at Risk**

A primary tool used to manage interest rate risk is “rate shock” simulation to measure the rate sensitivity. Rate shock simulation is a modeling technique used to estimate the impact of changes in rates on net interest income as well as economic value of equity. At December 31, 2018, the Bank was liability sensitive, meaning that net interest income is negatively impacted as interest rates increase and positively impacted as interest rates decrease.

Net interest income at risk is measured by estimating the changes in net interest income resulting from instantaneous and sustained parallel shifts in interest rates of different magnitudes over a period of 12 months. The following table sets forth the estimated changes to net interest income over the 12-month period ending December 31, 2018 assuming instantaneous changes in interest rates for the given rate shock scenarios (dollars in thousands):

	<b>Changes in Interest Rate</b>			
	<b>-100 bp</b>	<b>+100 bp</b>	<b>+200 bp</b>	<b>+300 bp</b>
Estimated change in net interest income	\$ 1,369	\$ (3,143)	\$ (6,520)	\$ (9,972)
% Change	1.06%	(2.43)%	(5.04)%	(7.71)%

In addition to the changes in interest rate scenarios listed above, other scenarios are typically modeled to measure interest rate risk. These scenarios vary depending on the economic and interest rate environment.

The simulation referenced above is based on our assumption as to the effect of interest rate changes on assets and liabilities and assumes a parallel shift of the yield curve. It also includes certain assumptions about the future pricing of loans and deposits in response to changes in interest rates. Further, it assumes that delinquency rates would not change as a result of changes in interest rates, although there can be no assurance that this will be the case. While this simulation is a useful measure as to net interest income at risk due to a change in interest rates, it is not a forecast of the future results, does not measure the effect of changing interest rates on noninterest income and is based on many assumptions that, if changed, could cause a different outcome.



## Economic Value of Equity At Risk

The economic (or “fair”) value of financial instruments on our balance sheet will also vary under the interest rate scenarios previously discussed. This variance is measured by simulating changes in our economic value of equity (“EVE”), which is calculated by subtracting the estimated fair value of liabilities from the estimated fair value of assets. Fair values for financial instruments are estimated by discounting projected cash flows (principal and interest) at current replacement rates for each account type, while fair values of non-financial assets and liabilities are assumed to equal book value and do not vary with interest rate fluctuations. An economic value simulation is a static measure for balance sheet accounts at a given point in time, but this measurement can change substantially over time as the characteristics of our balance sheet evolve and as interest rate and yield curve assumptions are updated.

The amount of change in economic value under different interest rate scenarios depends on the characteristics of each class of financial instrument, including the stated interest rate or spread relative to current market rates or spreads, the likelihood of prepayment, whether the rate is fixed or floating, and the maturity date of the instrument. As a general rule, fixed-rate financial assets become more valuable in declining rate scenarios and less valuable in rising rate scenarios, while fixed-rate financial liabilities gain in value as interest rates rise and lose value as interest rates decline. The longer the duration of the financial instrument, the greater the impact a rate change will have on its value. In our economic value simulations, estimated prepayments are factored in for financial instruments with stated maturity dates, and decay rates for non-maturity deposits are projected based on historical data (back-testing).

The analysis that follows presents the estimated EVE resulting from market interest rates prevailing at a given quarter-end (“Pre-Shock Scenario”), and under other interest rate scenarios (each a “Rate Shock Scenario”) represented by immediate, permanent, parallel shifts in interest rates from those observed at December 31, 2018 and 2017. The analysis additionally presents a measurement of the interest rate sensitivity at December 31, 2018 and 2017. EVE amounts are computed under each respective Pre-Shock Scenario and Rate Shock Scenario. An increase in the EVE amount is considered favorable, while a decline is considered unfavorable.

Rate Shock Scenario:	December 31, 2018			December 31, 2017		
	EVE	Change	Percentage Change	EVE	Change	Percentage Change
Pre-Shock Scenario	\$ 557,468			\$ 578,550		
- 100 Basis Points	568,602	\$ 11,134	2.00%	592,527	\$ 13,977	2.42%
+ 100 Basis Points	523,577	(33,891)	(6.08)	544,507	(34,043)	(5.88)
+ 200 Basis Points	485,798	(71,670)	(12.86)	507,137	(71,413)	(12.34)
+ 300 Basis Points	446,910	(110,558)	(19.83)	468,787	(109,763)	(18.97)

The Pre-Shock Scenario EVE was \$557.5 million at December 31, 2018, compared to \$578.6 million at December 31, 2017. The decrease in the Pre-Shock Scenario EVE at December 31, 2018, compared to December 31, 2017 resulted primarily from a less favorable valuation of non-maturity deposits and certain fixed rate assets that reflected alternative funding rate changes used for discounting future cash flows.

The +200 basis point Rate Shock Scenario EVE decreased from \$507.1 million at December 31, 2017 to \$485.8 million at December 31, 2018. The percentage change in the EVE amount from the Pre-Shock Scenario to the +200 basis point Rate Shock Scenario changed from (12.34)% at December 31, 2017 to (12.86)% at December 31, 2018.

## Interest Rate Sensitivity Gap

The following table presents an analysis of our interest rate sensitivity gap position at December 31, 2018. All interest-earning assets and interest-bearing liabilities are shown based on the earlier of their contractual maturity or re-pricing date. The expected maturities are presented on a contractual basis or, if more relevant, based on projected call dates. Investment securities are at amortized cost for both securities available for sale and securities held to maturity. Loans, net of deferred loan origination costs, include principal amortization adjusted for estimated prepayments (principal payments in excess of contractual amounts) and non-accruing loans. Because the interest rate sensitivity levels shown in the table could be changed by external factors such as loan prepayments and liability decay rates or by factors controllable by us, such as asset sales, it is not an absolute reflection of our potential interest rate risk profile (in thousands).

	At December 31, 2018				
	Three Months or Less	Over Three Months Through One Year	Over One Year Through Five Years	Over Five Years	Total
<b>INTEREST-EARNING ASSETS:</b>					
Federal funds sold and other interest-earning deposits	\$ 39,522	\$ -	\$ -	\$ -	\$ 39,522
Investment securities	31,366	112,617	427,080	331,100	902,163
Loans	948,842	476,020	1,258,732	405,872	3,089,466
Total interest-earning assets	<u>\$ 1,019,730</u>	<u>\$ 588,637</u>	<u>\$ 1,685,812</u>	<u>\$ 736,972</u>	<u>4,031,151</u>
Cash and due from banks					63,233
Other assets <sup>(1)</sup>					217,314
Total assets					<u>\$4,311,698</u>
<b>INTEREST-BEARING LIABILITIES:</b>					
Interest-bearing demand, savings and money market	\$ 1,591,379	\$ -	\$ -	\$ -	\$1,591,379
Time deposits	438,673	433,066	148,324	5	1,020,068
Borrowings	422,100	47,400	-	39,202	508,702
Total interest-bearing liabilities	<u>\$ 2,452,152</u>	<u>\$ 480,466</u>	<u>\$ 148,324</u>	<u>\$ 39,207</u>	<u>3,120,149</u>
Noninterest-bearing deposits					755,460
Other liabilities					39,796
Total liabilities					<u>3,915,405</u>
Shareholders' equity					396,293
Total liabilities and shareholders' equity					<u>\$4,311,698</u>
Interest sensitivity gap	<u>\$(1,432,422)</u>	<u>\$ 108,171</u>	<u>\$1,537,488</u>	<u>\$ 697,765</u>	<u>\$ 911,002</u>
Cumulative gap	<u>\$(1,432,422)</u>	<u>\$(1,324,251)</u>	<u>\$ 213,237</u>	<u>\$ 911,002</u>	
Cumulative gap ratio <sup>(2)</sup>	41.6%	54.8%	106.9%	129.2%	
Cumulative gap as a percentage of total assets	(33.2)%	(30.7)%	4.9%	21.1%	

<sup>(1)</sup> Includes net unrealized loss on securities available for sale and allowance for loan losses.

<sup>(2)</sup> Cumulative total interest-earning assets divided by cumulative total interest-bearing liabilities.

For purposes of interest rate risk management, we direct more attention on simulation modeling, such as "net interest income at risk" as previously discussed, rather than gap analysis. We consider the net interest income at risk simulation modeling to be more informative in forecasting future income at risk.

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**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

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**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**Index to Consolidated Financial Statements**

	<u>Page</u>
Management’s Report on Internal Control over Financial Reporting.....	64
Reports of Independent Registered Public Accounting Firm (on the Consolidated Financial Statements).....	65
Report of Independent Registered Public Accounting Firm (on Internal Control over Financial Reporting) .....	67
Consolidated Statements of Financial Condition at December 31, 2018 and 2017 .....	68
Consolidated Statements of Income for the years ended December 31, 2018, 2017 and 2016.....	69
Consolidated Statements of Comprehensive Income for the years ended December 31, 2018, 2017 and 2016.....	70
Consolidated Statements of Changes in Shareholders’ Equity for the years ended December 31, 2018, 2017 and 2016 .....	71
Consolidated Statements of Cash Flows for the years ended December 31, 2018, 2017 and 2016.....	73
Notes to Consolidated Financial Statements.....	74

## Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting for Financial Institutions, Inc. and its subsidiaries (the "Company"), as such term is defined in Exchange Act Rule 13a-15(f). The Company's system of internal control over financial reporting has been designed to provide reasonable assurance to the Company's management and board of directors regarding the reliability of financial reporting and the preparation and fair presentation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

Any system of internal control over financial reporting, no matter how well designed, has inherent limitations, including the possibility that a control can be circumvented or overridden and misstatements due to error or fraud may occur and not be detected. Also, because of changes in conditions, internal control effectiveness may vary over time. Accordingly, even an effective system of internal control will provide only reasonable assurance with respect to financial statement preparation and presentation.

The Company's management has, including the Company's principal executive officer and principal financial officer as identified below, assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2018. To make this assessment, we used the criteria for effective internal control over financial reporting described in *Internal Control – Integrated Framework (2013)*, issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our assessment and based on such criteria, we believe that, as of December 31, 2018, the Company's internal control over financial reporting was effective.

RSM US LLP, the Company's independent registered public accounting firm that audited the Company's consolidated financial statements as of and for the year ended December 31, 2018 has issued a report on internal control over financial reporting as of December 31, 2018. That report appears herein.

/s/ Martin K. Birmingham  
President and Chief Executive Officer  
March 8, 2019

/s/ Kevin B. Klotzbach  
Executive Vice President and Chief Financial Officer  
March 8, 2019

## Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Financial Institutions, Inc.

### Opinion on the Financial Statements

We have audited the accompanying consolidated statement of financial condition of Financial Institutions, Inc. and subsidiaries (the Company) as of December 31, 2018, the related consolidated statements of income, comprehensive income, changes in shareholders' equity and cash flows for the year then ended, and the related notes to the consolidated financial statements (collectively, the financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018, and the results of its operations and its cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013, and our report dated March 8, 2019 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

### Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audit included performing procedures to assess the risks of material misstatement of the 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 financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ RSM US LLP

We have served as the Company's auditor since 2018.

Chicago, Illinois  
March 8, 2019

## Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors  
Financial Institutions, Inc.:

### *Opinion on the Consolidated Financial Statements*

We have audited the accompanying consolidated statements of financial condition of Financial Institutions, Inc. and subsidiaries (the Company) as of December 31, 2017, 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, 2017, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

### *Basis for Opinion*

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

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

*/s/ KPMG LLP*

We served as the Company's auditor from 1995 to 2017.

Rochester, New York  
March 14, 2018

## Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Financial Institutions, Inc.

### Opinion on the Internal Control Over Financial Reporting

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

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated statement of financial condition of the Company as of December 31, 2018, the related consolidated statements of income, comprehensive income, changes in shareholders' equity and cash flows for the year then ended, and the related notes to the consolidated financial statements of the Company and our report dated March 8, 2019 expressed an unqualified opinion.

### Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

### Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ RSM US LLP

Chicago, Illinois  
March 8, 2019

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**Consolidated Statements of Financial Condition**

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

	December 31,	
	2018	2017
<b>ASSETS</b>		
Cash and due from banks	\$ 102,755	\$ 99,195
Securities available for sale, at fair value	445,677	524,973
Securities held to maturity, at amortized cost (fair value of \$439,581 and \$512,983, respectively)	446,581	516,466
Loans held for sale	2,868	2,718
Loans (net of allowance for loan losses of \$33,914 and \$34,672, respectively)	3,052,684	2,700,345
Company owned life insurance	67,116	65,288
Premises and equipment, net	42,839	45,189
Goodwill and other intangible assets, net	76,173	74,703
Other assets	75,005	76,333
Total assets	<u>\$ 4,311,698</u>	<u>\$ 4,105,210</u>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Deposits:		
Noninterest-bearing demand	\$ 755,460	\$ 718,498
Interest-bearing demand	622,482	634,203
Savings and money market	968,897	1,005,317
Time deposits	1,020,068	852,156
Total deposits	3,366,907	3,210,174
Short-term borrowings	469,500	446,200
Long-term borrowings, net of issuance costs of \$798 and \$869, respectively	39,202	39,131
Other liabilities	39,796	28,528
Total liabilities	3,915,405	3,724,033
Commitments and contingencies (Note 11)		
Shareholders' equity:		
Series A 3% preferred stock, \$100 par value; 1,533 shares authorized; 1,435 and 1,439 shares issued	143	144
Series B-1 8.48% preferred stock, \$100 par value; 200,000 shares authorized; 171,847 shares issued	17,185	17,185
Total preferred equity	17,328	17,329
Common stock, \$0.01 par value; 50,000,000 shares authorized; 16,056,178 shares issued	161	161
Additional paid-in capital	122,704	121,058
Retained earnings	279,867	257,078
Accumulated other comprehensive loss	(21,281)	(11,916)
Treasury stock, at cost – 127,580 and 131,240 shares, respectively	(2,486)	(2,533)
Total shareholders' equity	396,293	381,177
Total liabilities and shareholders' equity	<u>\$ 4,311,698</u>	<u>\$ 4,105,210</u>

See accompanying notes to the consolidated financial statements.



**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**Consolidated Statements of Income**

*(in thousands, except per share data)*

	Years ended December 31,		
	2018	2017	2016
<b>Interest income:</b>			
Interest and fees on loans	\$ 130,703	\$ 106,282	\$ 92,296
Interest and dividends on investment securities	21,601	23,755	22,917
Other interest income	428	73	18
Total interest income	152,732	130,110	115,231
<b>Interest expense:</b>			
Deposits	19,055	11,093	8,458
Short-term borrowings	8,342	3,931	1,612
Long-term borrowings	2,471	2,471	2,471
Total interest expense	29,868	17,495	12,541
Net interest income	122,864	112,615	102,690
Provision for loan losses	8,934	13,361	9,638
Net interest income after provision for loan losses	113,930	99,254	93,052
<b>Noninterest income:</b>			
Service charges on deposits	7,120	7,391	7,280
Insurance income	4,930	5,266	5,396
ATM and debit card	6,152	5,721	5,687
Investment advisory	8,123	6,104	5,208
Company owned life insurance	1,793	1,781	2,808
Investments in limited partnerships	1,203	110	300
Loan servicing	441	439	436
Income from derivative instruments, net	972	131	-
Net gain on sale of loans held for sale	796	376	240
Net (loss) gain on investment securities	(127)	1,260	2,695
Net gain on other assets	50	37	313
Contingent consideration liability adjustment	-	1,200	1,170
Other	5,025	4,914	4,227
Total noninterest income	36,478	34,730	35,760
<b>Noninterest expense:</b>			
Salaries and employee benefits	54,643	48,675	45,215
Occupancy and equipment	17,338	16,293	14,529
Professional services	3,912	4,083	5,782
Computer and data processing	5,122	4,935	4,451
Supplies and postage	2,032	2,003	2,047
FDIC assessments	1,975	1,817	1,735
Advertising and promotions	3,582	2,171	2,097
Amortization of intangibles	1,257	1,170	1,249
Goodwill impairment	2,350	1,575	-
Other	8,665	7,791	7,566
Total noninterest expense	100,876	90,513	84,671
Income before income taxes	49,532	43,471	44,141
Income tax expense	10,006	9,945	12,210
Net income	<u>\$ 39,526</u>	<u>\$ 33,526</u>	<u>\$ 31,931</u>
Preferred stock dividends	1,461	1,462	1,462
Net income available to common shareholders	<u>\$ 38,065</u>	<u>\$ 32,064</u>	<u>\$ 30,469</u>
<b>Earnings per common share (Note 17):</b>			
Basic	\$ 2.39	\$ 2.13	\$ 2.11
Diluted	\$ 2.39	\$ 2.13	\$ 2.10
Cash dividends declared per common share	\$ 0.96	\$ 0.85	\$ 0.81
<b>Weighted average common shares outstanding:</b>			
Basic	15,910	15,044	14,436
Diluted	15,956	15,085	14,491

See accompanying notes to the consolidated financial statements.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**Consolidated Statements of Comprehensive Income**

*(in thousands)*

	Years ended December 31,		
	2018	2017	2016
Net income	\$ 39,526	\$ 33,526	\$ 31,931
Other comprehensive income (loss), net of tax:			
Securities available for sale and transferred securities	(4,494)	454	(3,033)
Hedging derivative instruments	(276)	-	-
Pension and post-retirement obligations	(4,595)	1,581	409
Total other comprehensive income (loss), net of tax	(9,365)	2,035	(2,624)
Comprehensive income	<u>\$ 30,161</u>	<u>\$ 35,561</u>	<u>\$ 29,307</u>

See accompanying notes to the consolidated financial statements.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**Consolidated Statements of Changes in Shareholders' Equity**  
**Years ended December 31, 2018, 2017 and 2016**

<i>(in thousands, except per share data)</i>	Preferred Equity	Common Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Shareholders' Equity
<b>Balance at January 1, 2016</b>	<b>\$ 17,340</b>	<b>\$ 144</b>	<b>\$ 72,690</b>	<b>\$ 218,920</b>	<b>\$ (11,327)</b>	<b>\$ (3,923)</b>	<b>\$ 293,844</b>
Comprehensive income:							
Net income	-	-	-	31,931	-	-	31,931
Other comprehensive loss, net of tax	-	-	-	-	(2,624)	-	(2,624)
Common stock issued	-	3	8,097	-	-	-	8,100
Share-based compensation plans:							
Share-based compensation	-	-	845	-	-	-	845
Stock options exercised	-	-	23	-	-	941	964
Restricted stock awards issued, net	-	-	24	-	-	(24)	-
Excess tax benefit	-	-	30	-	-	-	30
Stock awards	-	-	46	-	-	82	128
Cash dividends declared:							
Series A 3% Preferred-\$3.00 per share	-	-	-	(4)	-	-	(4)
Series B-1 8.48% Preferred-\$8.48 per share	-	-	-	(1,458)	-	-	(1,458)
Common-\$0.81 per share	-	-	-	(11,702)	-	-	(11,702)
<b>Balance at December 31, 2016</b>	<b>\$ 17,340</b>	<b>\$ 147</b>	<b>\$ 81,755</b>	<b>\$ 237,687</b>	<b>\$ (13,951)</b>	<b>\$ (2,924)</b>	<b>\$ 320,054</b>
Cumulative-effect adjustment	-	-	(279)	279	-	-	-
<b>Balance at January 1, 2017</b>	<b>\$ 17,340</b>	<b>\$ 147</b>	<b>\$ 81,476</b>	<b>\$ 237,966</b>	<b>\$ (13,951)</b>	<b>\$ (2,924)</b>	<b>\$ 320,054</b>
Comprehensive income:							
Net income	-	-	-	33,526	-	-	33,526
Other comprehensive income, net of tax	-	-	-	-	2,035	-	2,035
Common stock issued	-	14	38,289	-	-	-	38,303
Purchase of common stock for treasury	-	-	-	-	-	(148)	(148)
Repurchase of Series A 3% preferred stock	(5)	-	2	-	-	-	(3)
Repurchase of Series B-1 8.48% preferred stock	(6)	-	-	-	-	-	(6)
Share-based compensation plans:							
Share-based compensation	-	-	1,174	-	-	-	1,174
Stock options exercised	-	-	5	-	-	408	413
Restricted stock awards issued, net	-	-	21	-	-	(21)	-
Stock awards	-	-	91	-	-	152	243
Cash dividends declared:							
Series A 3% Preferred-\$3.00 per share	-	-	-	(4)	-	-	(4)
Series B-1 8.48% Preferred-\$8.48 per share	-	-	-	(1,458)	-	-	(1,458)
Common-\$0.85 per share	-	-	-	(12,952)	-	-	(12,952)
<b>Balance at December 31, 2017</b>	<b>\$ 17,329</b>	<b>\$ 161</b>	<b>\$ 121,058</b>	<b>\$ 257,078</b>	<b>\$ (11,916)</b>	<b>\$ (2,533)</b>	<b>\$ 381,177</b>

*Continued on next page*

See accompanying notes to the consolidated financial statements.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**Consolidated Statements of Changes in Shareholders' Equity (Continued)**  
**Years ended December 31, 2018, 2017 and 2016**

<i>(in thousands, except per share data)</i>	Preferred Equity	Common Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Shareholders' Equity
<b>Balance at December 31, 2017</b>	<b>\$ 17,329</b>	<b>\$ 161</b>	<b>\$ 121,058</b>	<b>\$ 257,078</b>	<b>\$ (11,916)</b>	<b>\$ (2,533)</b>	<b>\$ 381,177</b>
<b>Balance carried forward</b>							
Comprehensive income:							
Net income	-	-	-	39,526	-	-	39,526
Other comprehensive loss, net of tax	-	-	-	-	(9,365)	-	(9,365)
Purchase of common stock for treasury	-	-	-	-	-	(113)	(113)
Repurchase of Series A 3% preferred stock	(1)	-	-	-	-	-	(1)
Share-based compensation plans:							
Share-based compensation	-	-	1,301	-	-	-	1,301
Stock options exercised	-	-	(19)	-	-	339	320
Restricted stock awards issued, net	-	-	303	-	-	(303)	-
Stock awards	-	-	61	-	-	124	185
Cash dividends declared:							
Series A 3% Preferred-\$3.00 per share	-	-	-	(4)	-	-	(4)
Series B-1 8.48% Preferred-\$8.48 per share	-	-	-	(1,457)	-	-	(1,457)
Common-\$0.96 per share	-	-	-	(15,276)	-	-	(15,276)
<b>Balance at December 31, 2018</b>	<b><u>\$ 17,328</u></b>	<b><u>\$ 161</u></b>	<b><u>\$ 122,704</u></b>	<b><u>\$ 279,867</u></b>	<b><u>\$ (21,281)</u></b>	<b><u>\$ (2,486)</u></b>	<b><u>\$ 396,293</u></b>

See accompanying notes to the consolidated financial statements.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**Consolidated Statements of Cash Flows**

(in thousands)

	Years ended December 31,		
	2018	2017	2016
<b>Cash flows from operating activities:</b>			
Net income	\$ 39,526	\$ 33,526	\$ 31,931
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	6,477	6,177	5,958
Net amortization of premiums on securities	2,456	3,298	3,192
Provision for loan losses	8,934	13,361	9,638
Share-based compensation	1,301	1,174	845
Deferred income tax (benefit) expense	(10,480)	12,403	(1,718)
Proceeds from sale of loans held for sale	30,547	14,555	11,655
Originations of loans held for sale	(29,901)	(15,847)	(11,035)
Increase in company owned life insurance	(1,793)	(1,781)	(2,808)
Net gain on sale of loans held for sale	(796)	(376)	(240)
Net loss (gain) on investment securities	127	(1,260)	(2,695)
Goodwill impairment	2,350	1,575	-
Net gain on other assets	(50)	(37)	(313)
Decrease (increase) in other assets	13,376	(24,505)	2,027
Increase in other liabilities	3,065	4,016	257
Net cash provided by operating activities	65,139	46,279	46,694
<b>Cash flows from investing activities:</b>			
Purchases of investment securities:			
Available for sale	(44,919)	(86,434)	(213,413)
Held to maturity	(28,017)	(71,479)	(126,375)
Proceeds from principal payments, maturities and calls on investment securities:			
Available for sale	90,114	51,978	119,190
Held to maturity	96,211	96,376	66,579
Proceeds from sales of securities available for sale	29,851	50,084	95,261
Net loan originations	(361,915)	(404,905)	(262,684)
Purchases of company owned life insurance, net of benefits received	(35)	(52)	2,398
Proceeds from sales of other assets	590	234	854
Purchases of premises and equipment	(2,842)	(7,740)	(7,619)
Cash consideration paid for acquisition, net of cash acquired	(4,447)	(676)	(868)
Net cash used in investing activities	(225,409)	(372,614)	(326,677)
<b>Cash flows from financing activities:</b>			
Net increase in deposits	156,733	214,952	264,691
Net increase in short-term borrowings	23,300	114,700	38,400
Repurchase of preferred stock	(1)	(9)	-
Proceeds from issuance of common stock	-	38,303	-
Purchases of common stock for treasury	(113)	(148)	-
Proceeds from stock options exercised	320	413	964
Excess tax benefit on share-based compensation	-	-	30
Cash dividends paid to preferred shareholders	(1,462)	(1,462)	(1,462)
Cash dividends paid to common shareholders	(14,947)	(12,496)	(11,484)
Net cash provided by financing activities	163,830	354,253	291,139
Net increase in cash and cash equivalents	3,560	27,918	11,156
Cash and cash equivalents, beginning of period	99,195	71,277	60,121
Cash and cash equivalents, end of period	<u>\$ 102,755</u>	<u>\$ 99,195</u>	<u>\$ 71,277</u>

See accompanying notes to the consolidated financial statements.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(1.) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

Financial Institutions, Inc. (individually referred to herein as the “Parent Company” and together with all of its subsidiaries, collectively referred to herein as the “Company”) is a financial holding company organized in 1931 under the laws of New York State (“New York”). At December 31, 2018, the Company conducted its business through its four subsidiaries: Five Star Bank (the “Bank”), a New York chartered bank; SDN Insurance Agency, LLC (formerly Scott Danahy Naylon, LLC) (“SDN”), a full service insurance agency; and Courier Capital, LLC (“Courier Capital”) and HNP Capital, LLC (“HNP Capital”), SEC-registered investment advisory and wealth management firms. The Company provides a full range of banking and related financial services to consumer, commercial and municipal customers through its bank and nonbank subsidiaries.

The accounting and reporting policies conform to general practices within the banking industry and to U.S. generally accepted accounting principles (“GAAP”).

The Company has evaluated events and transactions for potential recognition or disclosure through the day the financial statements were issued and determined there were no material recognizable subsequent events.

The following is a description of the Company’s significant accounting policies.

**(a.) Principles of Consolidation**

The consolidated financial statements include the accounts of the Company and its subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

**(b.) Use of Estimates**

In preparing the consolidated financial statements in conformity with GAAP, management is required to make estimates and assumptions that affect the reported amount of assets and liabilities as of the date of the statement of financial condition and reported amounts of revenue and expenses during the reporting period. Material estimates relate to the determination of the allowance for loan losses, the carrying value of goodwill and deferred tax assets, and assumptions used in the defined benefit pension plan accounting. These estimates and assumptions are based on management’s best estimates and judgment and are evaluated on an ongoing basis using historical experience and other factors, including the current economic environment. The Company adjusts these estimates and assumptions when facts and circumstances dictate. As future events cannot be determined with precision, actual results could differ significantly from the Company’s estimates.

**(c.) Cash Flow Reporting**

Cash and cash equivalents include cash and due from banks, federal funds sold and interest-bearing deposits in other banks. Net cash flows are reported for loans, deposit transactions and short-term borrowings.

Supplemental cash flow information is summarized as follows for the years ended December 31 (in thousands):

	2018	2017	2016
<b>Supplemental information:</b>			
Cash paid for interest	\$ 28,626	\$ 14,850	\$ 11,823
Cash paid for income taxes, net of refunds received	3,527	13,187	10,555
<b>Noncash investing and financing activities:</b>			
Real estate and other assets acquired in settlement of loans	\$ 642	\$ 426	\$ 496
Accrued and declared unpaid dividends	4,187	3,859	3,403
Increase (decrease) in net unsettled security purchases	2,650	-	(170)
Common stock issued for acquisition	-	-	8,100
<b>Assets acquired and liabilities assumed in business combinations:</b>			
Fair value of assets acquired	2,561	812	4,848
Fair value of liabilities assumed	128	44	1,845

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(1.) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

***(d.) Investment Securities***

Investment securities are classified as either available for sale or held to maturity. Debt securities that management has the positive intent and ability to hold to maturity are classified as held to maturity and are recorded at amortized cost. Other investment securities are classified as available for sale and recorded at fair value, with unrealized gains and losses excluded from earnings and reported as a component of comprehensive income (loss) and shareholders' equity.

Purchase premiums and discounts are recognized in interest income using the interest method over the terms of the securities. Securities are evaluated periodically to determine whether a decline in their fair value is other than temporary. Management utilizes criteria such as the current intent to hold or sell the security, the magnitude and duration of the decline and, when appropriate, consideration of negative changes in expected cash flows, creditworthiness, near term prospects of issuers, the level of credit subordination, estimated loss severity, and delinquencies, to determine whether a loss in value is other than temporary. The term "other than temporary" is not intended to indicate that the decline is permanent but indicates that the prospect for a near-term recovery of value is not necessarily favorable. Declines in the fair value of investment securities below their cost that are deemed to be other than temporary are reflected in earnings as realized losses to the extent the impairment is related to credit issues or concerns, or the security is intended to be sold. The amount of impairment related to non-credit related factors is recognized in other comprehensive income. Gains and losses on the sale of securities are recorded on the trade date and are determined using the specific identification method.

***(e.) Loans Held for Sale and Loan Servicing Rights***

The Company generally makes the determination of whether to identify a mortgage as held for sale at the time the loan is closed based on the Company's intent and ability to hold the loan. Loans held for sale are recorded at the lower of cost or market computed on the aggregate portfolio basis. The amount by which cost exceeds market value, if any, is accounted for as a valuation allowance with changes included in the determination of results of operations for the period in which the change occurs. The amount of loan origination costs and fees are deferred at origination and recognized as part of the gain or loss on sale of the loans, determined using the specific identification method, in the consolidated statements of income.

The Company originates and sells certain residential real estate loans in the secondary market. The Company typically retains the right to service the mortgages upon sale. Mortgage-servicing rights ("MSRs") represent the cost of acquiring the contractual rights to service loans for others. MSRs are recorded at their fair value at the time a loan is sold and servicing rights are retained. MSRs are reported in other assets in the consolidated statements of financial position and are amortized to noninterest income in the consolidated statements of income in proportion to and over the period of estimated net servicing income. The Company uses a valuation model that calculates the present value of future cash flows to determine the fair value of servicing rights. In using this valuation method, the Company incorporates assumptions to estimate future net servicing income, which include estimates of the cost to service the loan, the discount rate, an inflation rate and prepayment speeds. On a quarterly basis, the Company evaluates its MSRs for impairment and charges any such impairment to current period earnings. In order to evaluate its MSRs the Company stratifies the related mortgage loans on the basis of their predominant risk characteristics, such as interest rates, year of origination and term, using discounted cash flows and market-based assumptions. Impairment of MSRs is recognized through a valuation allowance, determined by estimating the fair value of each stratum and comparing it to its carrying value. Subsequent increases in fair value are adjusted through the valuation allowance, but only to the extent of the valuation allowance.

Mortgage loan servicing includes collecting monthly mortgagor payments, forwarding payments and related accounting reports to investors, collecting escrow deposits for the payment of mortgagor property taxes and insurance, paying taxes and insurance from escrow funds when due and administering foreclosure actions when necessary. Loan servicing income (a component of noninterest income in the consolidated statements of income) consists of fees earned for servicing mortgage loans sold to third parties, net of amortization expense and impairment losses associated with capitalized mortgage servicing assets.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(1.) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

***(f.) Loans***

Loans are classified as held for investment when management has both the intent and ability to hold the loan for the foreseeable future, or until maturity or payoff. Loans are carried at the principal amount outstanding, net of any unearned income and unamortized deferred fees and costs on originated loans. Loan origination fees and certain direct loan origination costs are deferred, and the net amount is amortized into net interest income over the contractual life of the related loans or over the commitment period as an adjustment of yield. Interest income on loans is based on the principal balance outstanding computed using the effective interest method.

A loan is considered delinquent when a payment has not been received in accordance with the contractual terms. The accrual of interest income for commercial loans is discontinued when there is a clear indication that the borrower's cash flow may not be sufficient to meet payments as they become due, while the accrual of interest income for retail loans is discontinued when loans reach specific delinquency levels. Loans are generally placed on nonaccrual status when contractually past due 90 days or more as to interest or principal payments, unless the loan is well secured and in the process of collection. Additionally, if management becomes aware of facts or circumstances that may adversely impact the collectability of principal or interest on loans, it is management's practice to place such loans on a nonaccrual status immediately, rather than delaying such action until the loans become 90 days past due. When a loan is placed on nonaccrual status, previously accrued and uncollected interest is reversed, amortization of related deferred loan fees or costs is suspended, and income is recorded only to the extent that interest payments are subsequently received in cash and a determination has been made that the principal balance of the loan is collectible. If collectability of the principal is in doubt, payments received are applied to loan principal. A nonaccrual loan may be returned to accrual status when all delinquent principal and interest payments become current in accordance with the terms of the loan agreement, the borrower has demonstrated a period of sustained performance (generally a minimum of six months) and the ultimate collectability of the total contractual principal and interest is no longer in doubt.

The Company's loan policy dictates the guidelines to be followed in determining when a loan is charged-off. All charge offs are approved by the Bank's senior loan officers or loan committees, depending on the amount of the charge off, and are reported in aggregate to the Bank's Board of Directors. Commercial business and commercial mortgage loans are charged-off when a determination is made that the financial condition of the borrower indicates that the loan will not be collectible in the ordinary course of business. Residential mortgage loans and home equities are generally charged-off or written down when the credit becomes severely delinquent and the balance exceeds the fair value of the property less costs to sell. Indirect and other consumer loans, both secured and unsecured, are generally charged-off in full during the month in which the loan becomes 120 days past due, unless the collateral is in the process of repossession in accordance with the Company's policy.

A loan is accounted for as a troubled debt restructuring if the Company, for economic or legal reasons related to the borrower's financial condition, grants a significant concession to the borrower that it would not otherwise consider. A troubled debt restructuring may involve the receipt of assets from the debtor in partial or full satisfaction of the loan, or a modification of terms such as a reduction of the stated interest rate or face amount of the loan, a reduction of accrued interest, an extension of the maturity date at a stated interest rate lower than the current market rate for a new loan with similar risk, or some combination of these concessions. Troubled debt restructurings generally remain on nonaccrual status until there is a sustained period of payment performance (usually six months or longer) and there is a reasonable assurance that the payments will continue. See Allowance for Loan Losses below for further policy discussion and see Note 5 – Loans for additional information.

***(g.) Off-Balance Sheet Financial Instruments***

In the ordinary course of business, the Company enters into off-balance sheet financial instruments consisting of commitments to extend credit, standby letters of credit and financial guarantees. Such financial instruments are recorded in the consolidated financial statements when they are funded or when related fees are incurred or received. The Company periodically evaluates the credit risks inherent in these commitments and establishes loss allowances for such risks if and when these are deemed necessary.



**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(1.) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

The Company recognizes as liabilities the fair value of the obligations undertaken in issuing the guarantees under the standby letters of credit, net of the related amortization at inception. The fair value approximates the unamortized fees received from the customers for issuing the standby letters of credit. The fees are deferred and recognized on a straight-line basis over the commitment period. Standby letters of credit outstanding typically have original terms ranging from one to five years. Fees received for providing loan commitments and letters of credit that result in loans are typically deferred and amortized to interest income over the life of the related loan, beginning with the initial borrowing. Fees on commitments and letters of credit are amortized to other income as banking fees and commissions over the commitment period when funding is not expected.

***(h.) Allowance for Loan Losses***

The allowance for loan losses is established through charges to earnings in the form of a provision for loan losses. When a loan or portion of a loan is determined to be uncollectible, the portion deemed uncollectible is charged against the allowance and subsequent recoveries, if any, are credited to the allowance.

The allowance for loan losses is evaluated on a regular basis and is based upon periodic review of the collectability of the loans in light of historical experience, the nature and volume of the loan portfolio, adverse situations that may affect the 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.

The allowance consists of specific and general components. Specific allowances are established for impaired loans. Impaired commercial business and commercial mortgage loans are individually evaluated and measured for impairment based on the present value of expected future cash flows discounted at the loan's effective interest rate, a loan's observable market price, or the fair value of the collateral if the loan is collateral dependent. Regardless of the measurement method, impairment is based on the fair value of the collateral when foreclosure is probable. If the recorded investment in impaired loans exceeds the measure of estimated fair value, a specific allowance is established as a component of the allowance for loan losses. Interest payments on impaired loans are typically applied to principal unless collectability of the principal amount is reasonably assured, in which case interest is recognized on a cash basis. Impaired loans, or portions thereof, are charged-off when deemed uncollectible.

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 in determining impairment include payment status 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. The Company determines the significance of payment delays and payment shortfalls on a case-by-case basis, taking into consideration all of the circumstances surrounding the loan and the borrower, including the length of the delay, the reasons for the delay, the borrower's prior payment record, and the amount of the shortfall in relation to the principal and interest owed. Impairment is measured on a loan by loan basis by either the present value of expected future cash flows discounted at the loan's effective interest rate, the loan's obtainable market price, or the fair value of the collateral if the loan is collateral dependent. Large groups of homogeneous loans are collectively evaluated for impairment. Accordingly, the Company does not separately identify individual consumer and residential loans for impairment disclosures unless the loan has been subject to a troubled debt restructure. At December 31, 2018, there were no commitments to lend additional funds to those borrowers whose loans were classified as impaired.

General allowances are established for loan losses on a portfolio basis for loans that are collectively evaluated for impairment. The portfolio is grouped into similar risk characteristics, primarily loan type. The Company applies an estimated loss rate, which considers both look-back and loss emergence periods, to each loan group. The loss rate is based on historical experience, with a look-back period of 24 months, and as a result can differ from actual losses incurred in the future. The historical loss rate is adjusted by the loss emergence periods that range from 12 to 32 months depending on the loan type, and for qualitative factors such as; levels and trends of delinquent and non-accruing loans, trends in volume and terms, effects of changes in lending policy, the experience, ability and depth of management, national and local economic trends and conditions, concentrations of credit risk, interest rates, regulatory environment, information risk and collateral risk. The qualitative factors are reviewed at least quarterly and adjustments are made as needed.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(1.) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

While management evaluates currently available information in establishing the allowance for loan losses, future adjustments to the allowance may be necessary if conditions differ substantially from the assumptions used in making the evaluations. In addition, various regulatory agencies, as an integral part of their examination process, periodically review a financial institution's allowance for loan losses. Such agencies may require the financial institution to recognize additions to the allowance based on their judgments about information available to them at the time of their examination.

***(i.) Other Real Estate Owned***

Other real estate owned consists of properties acquired through foreclosure or by acceptance of a deed in lieu of foreclosure. These assets are initially recorded at fair value less estimated costs to sell, which establishes the cost basis. Subsequently, other real estate owned is carried at the lower of the cost basis or fair value less estimated selling costs. At the time of foreclosure, or when foreclosure occurs in-substance, the excess, if any, of the loan over the fair market value of the assets received, less estimated selling costs, is charged to the allowance for loan losses and any subsequent valuation write-downs are charged to other expense. In connection with the determination of the allowance for loan losses and the valuation of other real estate owned, management obtains appraisals for properties. Operating costs associated with the properties are charged to expense as incurred. Gains on the sale of other real estate owned are included in income when title has passed and the sale has met the minimum down payment requirements prescribed by GAAP. The balance of other real estate owned was \$230 thousand and \$148 thousand at December 31, 2018 and 2017, respectively.

***(j.) Company Owned Life Insurance***

The Company holds life insurance policies on certain current and former employees. The Company is the owner and beneficiary of the policies. The cash surrender value of these policies is included as an asset on the consolidated statements of financial condition, and any increase in cash surrender value is recorded as noninterest income on the consolidated statements of income. In the event of the death of an insured individual under these policies, the Company would receive a death benefit which would be recorded as noninterest income.

***(k.) Premises and Equipment***

Premises and equipment are stated at cost, less accumulated depreciation and amortization. Depreciation is computed on the straight-line method over the estimated useful lives of the assets. The Company generally amortizes buildings and building improvements over a period of 15 to 39 years and software, furniture and equipment over a period of 3 to 10 years. Leasehold improvements are amortized over the shorter of the lease term or the useful life of the improvements. Premises and equipment are periodically reviewed for impairment or when circumstances present indicators of impairment.

***(l.) Goodwill and Other Intangible Assets***

The excess of the cost of an acquisition over the fair value of the net assets acquired consists primarily of goodwill, core deposit intangibles, and other identifiable intangible assets. Intangible assets are acquired assets that lack physical substance but can be distinguished from goodwill because of contractual or other legal rights or because the asset is capable of being sold or exchanged either on its own or in combination with a related contract, asset, or liability. The Company's intangible assets consist of core deposits and other intangible assets (primarily customer relationships). Core deposit intangible assets are amortized on an accelerated basis over their estimated life of approximately nine and a half years. Other intangible assets are amortized on an accelerated basis over their weighted average estimated life of approximately twenty years. The Company reviews long-lived assets and certain identifiable intangibles for impairment at least annually, or whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable, in which case an impairment charge would be recorded.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(1.) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

Goodwill is not amortized but, instead, is subject to impairment tests on at least an annual basis, and more frequently if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The impairment testing process is conducted by assigning net assets and goodwill to each reporting unit. An initial qualitative evaluation is made to assess the likelihood of impairment and determine whether further quantitative testing to calculate the fair value is necessary. When the qualitative evaluation indicates that impairment is more likely than not, quantitative testing is required whereby the fair value of each reporting unit is calculated and compared to the recorded book value. If the calculated fair value of the reporting unit exceeds its carrying value, then goodwill is not considered impaired. However, if the carrying value of a reporting unit exceeds its calculated fair value, a goodwill impairment charge is recognized. See Note 7 for additional information on goodwill and other intangible assets.

***(m.) Federal Home Loan Bank (“FHLB”) and Federal Reserve Bank (“FRB”) Stock***

The non-marketable investments in FHLB and FRB stock are included in other assets in the consolidated statements of financial condition at par value or cost and are periodically reviewed for impairment. The dividends received relative to these investments are included in other noninterest income in the consolidated statements of income.

As a member of the FHLB system, the Company is required to maintain a specified investment in FHLB of New York (“FHLB NY”) stock in proportion to its volume of certain transactions with the FHLB. FHLB NY stock totaled \$20.3 million and \$21.9 million as of December 31, 2018 and 2017, respectively.

As a member of the FRB system, the Company is required to maintain a specified investment in FRB stock based on a ratio relative to the Company’s capital. FRB stock totaled \$6.1 million and \$5.8 million as of December 31, 2018 and 2017, respectively.

***(n.) Equity Method Investments***

The Company has investments in limited partnerships, primarily Small Business Investment Companies and Tax Credit Investment Partnerships, and accounts for these investments under the equity method. These investments are included in other assets in the consolidated statements of financial condition and totaled \$10.5 million and \$5.7 million as of December 31, 2018 and 2017, respectively.

***(o.) Derivative Instruments and Hedging Activities***

Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 815, Derivatives and Hedging (“ASC 815”), provides the disclosure requirements for derivatives and hedging activities with the intent to provide users of financial statements with an enhanced understanding of: (a) how and why an entity uses derivative instruments, (b) how the entity accounts for derivative instruments and related hedged items, and (c) how derivative instruments and related hedged items affect an entity’s financial position, financial performance, and cash flows. Further, qualitative disclosures are required that explain the Company’s objectives and strategies for using derivatives, as well as quantitative disclosures about the fair value of and gains and losses on derivative instruments, and disclosures about credit-risk-related contingent features in derivative instruments.

As required by ASC 815, the Company records all derivatives on the balance sheet at fair value. The accounting for changes in the fair value of derivatives depends on the intended use of the derivative. Changes in fair value of the Company’s derivatives designated in a qualifying hedging relationship are recorded in accumulated other comprehensive income (loss). Changes in fair value of the Company’s derivatives not designated in a qualifying hedging relationship are recognized directly in earnings.

In accordance with the FASB’s fair value measurement guidance, the Company made an accounting policy election to measure the credit risk of its derivative financial instruments that are subject to master netting agreements on a net basis by counterparty portfolio.

***(p.) Treasury Stock***

Acquisitions of treasury stock are recorded at cost. The reissuance of shares in treasury is recorded at weighted-average cost.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(1.) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

***(q.) Transfers of Financial Assets***

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

***(r.) Revenue Recognition***

ASC 606, Revenue from Contracts with Customers (“ASC 606”), establishes principles for reporting information about the nature, amount, timing and uncertainty of revenue and cash flows arising from the entity’s contracts to provide goods or services to customers. The core principle requires an entity to recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration that it expects to be entitled to receive in exchange for those goods or services recognized as performance obligations are satisfied.

The majority of our revenue-generating transactions are not subject to ASC 606, including revenue generated from financial instruments, such as our loans, letters of credit, derivatives and investment securities, as well as revenue related to our loan servicing activities, as these activities are subject to other GAAP. Descriptions of our primary revenue-generating activities that are within the scope of ASC 606, which are presented in our income statements as components of noninterest income are as follows:

- Transactions and service-based revenues - these include service charges on deposits, investment advisory, and ATM and debit card fees. Revenue is recognized when the transactions occur or as services are performed over primarily monthly or quarterly periods. Payment is typically received in the period the transactions occur or, in some cases, within 90 days of the service period. Fees may be fixed or, where applicable, based on a percentage of transaction size or managed assets.
- Insurance income - Insurance commissions are received on the sale of insurance products, and revenue is recognized upon the placement date of the insurance policies. Payment is normally received within the policy period. In addition to placement, SDN also provides insurance policy related risk management services. Revenue is recognized as these services are provided.

***(s.) Employee Benefits***

The Company maintains an employer sponsored 401(k) plan where participants may make contributions in the form of salary deferrals and the Company may provide discretionary matching contributions in accordance with the terms of the plan. Contributions due under the terms of our defined contribution plans are accrued as earned by employees.

The Company also participates in a non-contributory defined benefit pension plan for certain employees who previously met participation requirements. The Company also provides post-retirement benefits, principally health and dental care, to employees of a previously acquired entity. The Company has closed the pension and post-retirement plans to new participants. The actuarially determined pension benefit is based on years of service and the employee’s highest average compensation during five consecutive years of employment. The Company’s policy is to at least fund the minimum amount required by the Employment Retirement Income Security Act of 1974. The cost of the pension and post-retirement plans are based on actuarial computations of current and future benefits for employees and is charged to noninterest expense in the consolidated statements of income.

The Company recognizes an asset or a liability for a plan’s overfunded status or underfunded status, respectively, in the consolidated financial statements and reports changes in the funded status as a component of other comprehensive income, net of applicable taxes, in the year in which changes occur.

Effective January 1, 2016, the Company’s 401(k) plan was amended, and the Company’s prior matching contribution was discontinued. Concurrent with the 401(k) plan amendment, the Company’s defined benefit pension plan was amended to modify the current benefit formula to reflect the discontinuance of the matching contribution in the 401(k) plan, to open the defined benefit pension plan up to eligible employees who were hired on and after January 1, 2007, which provides those new participants with a cash balance benefit formula.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(1.) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

***(t.) Share-Based Compensation Plans***

Compensation expense for stock options, restricted stock awards and restricted stock units is based on the fair value of the award on the measurement date, which, for the Company, is the date of grant and is recognized ratably over the service period of the award. The fair value of stock options is estimated using the Black-Scholes option-pricing model. The fair value of restricted stock awards and restricted stock units is generally the market price of the Company's stock on the date of grant.

Share-based compensation expense is included in the consolidated statements of income under salaries and employee benefits for awards granted to management and in other noninterest expense for awards granted to directors.

***(u.) Income Taxes***

Income taxes are accounted for using the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date. A valuation allowance is recognized on deferred tax assets if, based upon the weight of available evidence, it is more likely than not that some or all of the assets may not be realized. The Company recognizes interest and/or penalties related to income tax matters in income tax expense.

***(v.) Comprehensive Income (Loss)***

Comprehensive income (loss) includes all changes in shareholders' equity during a period, except those resulting from transactions with shareholders. In addition to net income, other components of the Company's comprehensive income (loss) include the after-tax effect of changes in net unrealized gain / loss on securities available for sale, changes in unrealized gain / loss on hedging derivative instruments and changes in net actuarial gain / loss on defined benefit post-retirement plans. Comprehensive income (loss) is reported in the accompanying consolidated statements of changes in shareholders' equity and consolidated statements of comprehensive income (loss). See Note 14 - Accumulated Other Comprehensive Income (Loss) for additional information.

***(w.) Earnings Per Common Share***

The Company calculates earnings per common share ("EPS") using the two-class method in accordance with FASB ASC Topic 260, "Earnings Per Share". The two-class method requires the Company to present EPS as if all of the earnings for the period are distributed to common shareholders and any participating securities, regardless of whether any actual dividends or distributions are made. All outstanding unvested share-based payment awards that contain rights to non-forfeitable dividends are considered participating securities.

Basic EPS is computed by dividing distributed and undistributed earnings available to common shareholders by the weighted average number of common shares outstanding for the period. Distributed and undistributed earnings available to common shareholders represent net income reduced by preferred stock dividends and distributed and undistributed earnings available to participating securities. Common shares outstanding include common stock and vested restricted stock awards. Diluted EPS reflects the assumed conversion of all potential dilutive securities. A reconciliation of the weighted-average shares used in calculating basic earnings per common share and the weighted average common shares used in calculating diluted earnings per common share for the reported periods is provided in Note 17 - Earnings Per Common Share.

***(x.) Reclassifications***

Certain items in prior financial statements have been reclassified to conform to the current presentation. These reclassifications did not result in any changes to previously reported net income or shareholders' equity.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(1.) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

***(y.) Recent Accounting Pronouncements***

In May 2014, the FASB issued Accounting Standards Update (“ASU”) No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*. ASU 2014-09 implements a common revenue standard that clarifies the principles for recognizing revenue. The core principle of ASU 2014-09 is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve that core principle, an entity should apply the following steps: (i) identify the contract(s) with a customer, (ii) identify the performance obligations in the contract, (iii) determine the transaction price, (iv) allocate the transaction price to the performance obligations in the contract and (v) recognize revenue when (or as) the entity satisfies a performance obligation. The effective date was deferred for one year to the interim and annual periods beginning on or after December 15, 2017. Early adoption was permitted as of the original effective date – interim and annual periods beginning on or after December 15, 2016. The Company’s largest source of revenue is net interest income on financial assets and liabilities, which is explicitly excluded from the scope of ASU 2014-09. Revenue streams that are within the scope of ASU 2014-09 include insurance income, investment advisory fees, service charges on deposits and ATM and debit card fees. The adoption of ASU 2014-09, as of January 1, 2018, did not have a significant impact on the Company’s financial statements. The Company adopted ASU 2014-09 using the modified retrospective transition method with no cumulative effect adjustment to opening retained earnings as of January 1, 2018.

In January 2016, the FASB issued ASU No. 2016-01, *Financial Instruments - Overall (Subtopic 825-10) - Recognition and Measurement of Financial Assets and Financial Liabilities*. ASU 2016-01 is intended to improve the recognition and measurement of financial instruments by requiring equity investments to be measured at fair value with changes in fair value recognized in net income; requiring entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes; requiring separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or the accompanying notes to the financial statements; eliminating the requirement for entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured and amortized at cost on the balance sheet; and requiring an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. ASU 2016-01 is effective for annual periods and interim periods within those annual periods, beginning after December 15, 2017. The amendments should be applied by means of a cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption. The amendments related to equity securities without readily determinable fair values (including disclosure requirements) should be applied prospectively to equity investments that exist as of the date of adoption. The adoption of ASU 2016-01, as of January 1, 2018, did not have a significant impact on the Company’s financial statements, except for the fair value disclosures as presented in Note 19 – Fair Value Measurements.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*. ASU 2016-02 establishes a right of use model that requires a lessee to record a right of use asset and a lease liability for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. For lessors, the guidance modifies the classification criteria and the accounting for sales-type and direct financing leases. A lease will be treated as a sale if it transfers all of the risks and rewards, as well as control of the underlying asset, to the lessee. If risks and rewards are conveyed without the transfer of control, the lease is treated as a financing. If the lessor doesn’t convey risks and rewards or control, an operating lease results. The amendments are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years for public business entities. In July 2018, ASU 2018-11 *Leases: Targeted Improvements* was issued to allow companies to choose to recognize the cumulative effect of applying the new standard as an adjustment to the opening balance of retained earnings rather than recasting prior year results. The adoption of ASU 2016-02, as of January 1, 2019, resulted in an increase of approximately \$22.2 million in assets and approximately \$23.5 million in liabilities on its financial statements from recording additional lease contracts where the Company is a lessee.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(1.) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments – Credit Losses (Topic 326) – Measurement of Credit Losses on Financial Instruments*. ASU 2016-13 amends guidance on reporting credit losses for financial assets held at amortized cost basis and available for sale debt securities. Topic 326 eliminates the probable initial recognition threshold in current GAAP and instead, requires an entity to reflect its current estimate of all expected credit losses based on historical experience, current conditions and reasonable and supportable forecasts. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial assets to present the net amount expected to be collected. The guidance is effective for fiscal years beginning after December 15, 2019, and interim periods within those years. Early adoption is permitted beginning after December 15, 2018. The Company is evaluating the new guidance and expects it to have an impact on the Company's statements of income and financial condition, the significance of which is not yet known, nor can it be reasonably estimated currently. Due to the significant differences in the new authoritative guidance from existing GAAP, the implementation of this guidance may result in material changes in our accounting for credit losses on financial instruments and will be impacted by the Company's loan and securities portfolios' composition, attributes and quality in addition to prevailing economic conditions and forecasts at the time of adoption. As part of the Company's evaluation process, it has established a steering committee and working group, including individuals from various functional areas, to assess processes and related controls, portfolio segmentation, model development, system requirements and needed resources.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230) – Classification of Certain Cash Receipts and Cash Payments*. ASU 2016-15 provides guidance on the following eight specific cash flow issues: 1) debt prepayment or debt extinguishment costs; 2) settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; 3) contingent consideration payments made after a business combination; 4) proceeds from the settlement of insurance claims; 5) proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies; 6) distributions received from equity method investees; 7) beneficial interests in securitization transactions; and 8) separately identifiable cash flows and application of the predominance principle. The guidance is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption was permitted, including adoption in an interim period. The adoption of ASU 2016-15, as of January 1, 2018, did not have a significant impact on the Company's financial statements.

In March 2017, the FASB issued ASU No. 2017-07, *Compensation – Retirement Benefits (Topic 715) – Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*, which provides additional guidance on the presentation of net periodic pension and postretirement benefit costs in the income statement and on the components eligible for capitalization. The amendments in this ASU require that an employer report the service cost component of the net periodic benefit costs in the same income statement line item as other compensation costs arising from services rendered by employees during the period. The non-service-cost components of net periodic benefit costs are to be presented in the income statement separately from the service cost components and outside a subtotal of income from operations. The ASU also allows for the capitalization of the service cost components, when applicable (i.e., as a cost of internally manufactured inventory or a self-constructed asset). The amendments are effective for annual periods beginning after December 15, 2017, including interim periods within those annual periods; early adoption was permitted as of the beginning of an annual period for which financial statements (interim or annual) have not been issued or made available for issuance. The amendments in this ASU are to be applied retrospectively. The adoption of ASU 2017-07, as of January 1, 2018, did not have a significant impact on the Company's financial statements.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

In March 2017, the FASB issued ASU No. 2017-08, *Receivables - Nonrefundable Fees and Other Costs (Subtopic 310-20) – Premium Amortization on Purchased Callable Debt Securities*. These amendments shorten the amortization period for certain callable debt securities held at a premium. Specifically, the amendments require the premium 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. The guidance is effective for public business entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption was permitted, including adoption in an interim period. If an entity early adopts in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. The amendments should be applied on a modified retrospective basis, with a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. The adoption of ASU 2017-08, as of January 1, 2019, did not have a significant impact on the Company's financial statements.

In August 2017, the FASB issued ASU No. 2017-12, *Derivatives and Hedging (Topic 815) – Targeted Improvements to Accounting for Hedging Activities*. These amendments: (a) expand and refine hedge accounting for both financial and non-financial risk components, (b) align the recognition and presentation of the effects of hedging instruments and hedge items in the financial statements, and (c) include certain targeted improvements to ease the application of current guidance related to the assessment of hedge effectiveness. The guidance is effective for public business entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption was permitted, including adoption in an interim period. If an entity early adopts in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. The amendments related to cash flow and net investment hedges existing at the date of adoption should be applied by means of a cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption. The amendments related to presentation and disclosure should be applied prospectively. The adoption of ASU 2017-12, as of January 1, 2019, did not have a significant impact on the Company's financial statements.

In February 2018, the FASB issued ASU No. 2018-02, *Income Statement-Reporting Comprehensive Income (Topic 220) – Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*. ASU 2018-02 permits a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the TCJ Act. The guidance is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption was permitted, including adoption in any interim period. The amendments should be applied either in the period of adoption or retrospectively to each period (or periods) in which the effect of the change in the federal corporate income tax rate in the TCJ Act is recognized. The adoption of ASU 2018-02, as of January 1, 2019, resulted in the Company reclassifying approximately \$2.8 million from accumulated other comprehensive income (loss) to retained earnings.



**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(2.) BUSINESS COMBINATIONS**

**2018 Activity – HNP Capital Acquisition**

On June 1, 2018, the Company completed the acquisition of HNP Capital, a Securities and Exchange Commission (“SEC”)-registered investment advisor with approximately \$344 million in assets under management as of June 30, 2018. Consideration for the acquisition totaled \$5.1 million in cash. As a result of the acquisition, the Company recorded goodwill of \$2.6 million and other intangible assets of \$2.5 million. The goodwill and other intangible assets are expected to be deductible for income tax purposes. The allocation of acquisition cost to the assets acquired and liabilities assumed and pro forma results of operations for this acquisition have not been presented because the effect of this acquisition was not material to the Company’s consolidated financial statements.

**2017 Activity - Robshaw & Julian Acquisition**

On August 31, 2017, Courier Capital completed the acquisition of the assets of Robshaw & Julian Associates, Inc. (“Robshaw & Julian”), a registered investment advisor with approximately \$175 million in assets under management, which increased Courier Capital’s total assets under management to a total of approximately \$1.6 billion. Consideration for the acquisition included cash and potential future cash bonuses contingent upon achievement of certain revenue performance targets through August 2020. As a result of the acquisition, Courier Capital recorded goodwill of \$1.0 million and other intangible assets of \$810 thousand. The goodwill and other intangible assets are expected to be deductible for income tax purposes. The allocation of acquisition cost to the assets acquired and liabilities assumed and pro forma results of operations for this acquisition have not been presented because the effect of this acquisition was not material to the Company’s consolidated financial statements.

**2016 Activity - Courier Capital Acquisition**

On January 5, 2016, the Company completed the acquisition of Courier Capital Corporation, a registered investment advisory and wealth management firm with approximately \$1.2 billion in assets under management at the time of acquisition. Consideration for the acquisition totaled \$9.0 million and included stock of \$8.1 million and \$918 thousand of cash. The acquisition also included up to \$2.8 million of potential future payments of stock and up to \$2.2 million of potential future cash bonuses contingent upon Courier Capital meeting certain EBITDA performance targets through 2018. In addition, the Company purchased two pieces of real property in Buffalo and Jamestown, New York used, but not owned by Courier Capital for total cash considerations of \$1.3 million. As a result of the acquisition, the Company recorded goodwill of \$6.0 million and other intangible assets of \$3.9 million. The goodwill is not expected to be deductible for income tax purposes. Pro forma results of operations for this acquisition have not been presented because the effect of this acquisition was not material to the Company’s consolidated financial statements.

This acquisition was accounted for under the acquisition method in accordance with FASB ASC Topic 805. Accordingly, the assets and liabilities, both tangible and intangible, were recorded at their estimated fair values as of the acquisition date. The following table presents the allocation of acquisition cost to the assets acquired and liabilities assumed, based on their estimated fair values.

Cash	\$	50
Identified intangible assets		3,928
Premises and equipment, accounts receivable and other assets		870
Deferred tax liability		(1,797)
Other liabilities		(48)
Net assets acquired	\$	<u>3,003</u>

The amounts assigned to goodwill and other intangible assets for the Courier Capital acquisition are as follows:

	Amount allocated	Useful life (in years)
Goodwill	\$ 6,015	n/a
Other intangible assets – customer relationships	3,900	20
Other intangible assets – other	28	5
	<u>\$ 9,943</u>	

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(3.) INVESTMENT SECURITIES**

The amortized cost and estimated fair value of investment securities are summarized below (in thousands).

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
<b>December 31, 2018</b>				
<b>Securities available for sale:</b>				
U.S. Government agencies and government sponsored enterprises	\$ 155,102	\$ -	\$ 3,074	\$ 152,028
Mortgage-backed securities:				
Federal National Mortgage Association	258,984	44	6,325	252,703
Federal Home Loan Mortgage Corporation	35,962	13	1,275	34,700
Government National Mortgage Association	5,364	21	76	5,309
Collateralized mortgage obligations:				
Federal National Mortgage Association	133	-	-	133
Federal Home Loan Mortgage Corporation	37	-	-	37
Privately issued	-	767	-	767
Total mortgage-backed securities	300,480	845	7,676	293,649
Total available for sale securities	<u>\$ 455,582</u>	<u>\$ 845</u>	<u>\$ 10,750</u>	<u>\$ 445,677</u>
<b>Securities held to maturity:</b>				
State and political subdivisions	\$ 234,845	\$ 876	\$ 1,211	\$ 234,510
Mortgage-backed securities:				
Federal National Mortgage Association	11,602	8	261	11,349
Federal Home Loan Mortgage Corporation	4,583	-	193	4,390
Government National Mortgage Association	37,450	14	923	36,541
Collateralized mortgage obligations:				
Federal National Mortgage Association	62,103	1	2,179	59,925
Federal Home Loan Mortgage Corporation	78,200	-	2,597	75,603
Government National Mortgage Association	17,798	-	535	17,263
Total mortgage-backed securities	211,736	23	6,688	205,071
Total held to maturity securities	<u>\$ 446,581</u>	<u>\$ 899</u>	<u>\$ 7,899</u>	<u>\$ 439,581</u>
<b>December 31, 2017</b>				
<b>Securities available for sale:</b>				
U.S. Government agencies and government sponsored enterprises	\$ 163,025	\$ 122	\$ 1,258	\$ 161,889
Mortgage-backed securities:				
Federal National Mortgage Association	311,830	313	3,220	308,923
Federal Home Loan Mortgage Corporation	41,290	76	675	40,691
Government National Mortgage Association	12,051	193	12	12,232
Collateralized mortgage obligations:				
Federal National Mortgage Association	217	1	1	217
Federal Home Loan Mortgage Corporation	45	-	-	45
Privately issued	-	976	-	976
Total mortgage-backed securities	365,433	1,559	3,908	363,084
Total available for sale securities	<u>\$ 528,458</u>	<u>\$ 1,681</u>	<u>\$ 5,166</u>	<u>\$ 524,973</u>

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(3.) INVESTMENT SECURITIES (Continued)**

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
<b>December 31, 2017 (continued)</b>				
<b>Securities held to maturity:</b>				
State and political subdivisions	\$ 283,557	\$ 2,317	\$ 662	\$ 285,212
Mortgage-backed securities:				
Federal National Mortgage Association	9,732	16	88	9,660
Federal Home Loan Mortgage Corporation	3,213	-	119	3,094
Government National Mortgage Association	26,841	-	330	26,511
Collateralized mortgage obligations:				
Federal National Mortgage Association	76,432	-	1,958	74,474
Federal Home Loan Mortgage Corporation	93,810	3	2,165	91,648
Government National Mortgage Association	22,881	5	502	22,384
Total mortgage-backed securities	232,909	24	5,162	227,771
Total held to maturity securities	<u>\$ 516,466</u>	<u>\$ 2,341</u>	<u>\$ 5,824</u>	<u>\$ 512,983</u>

Investment securities with a total fair value of \$751.0 million and \$838.4 million at December 31, 2018 and 2017, respectively, were pledged as collateral to secure public deposits and for other purposes required or permitted by law.

Interest and dividends on securities for the years ended December 31 are summarized as follows (in thousands):

	2018	2017	2016
Taxable interest and dividends	\$ 16,510	\$ 17,886	\$ 17,025
Tax-exempt interest and dividends	5,091	5,869	5,892
Total interest and dividends on securities	<u>\$ 21,601</u>	<u>\$ 23,755</u>	<u>\$ 22,917</u>

Sales and calls of securities available for sale for the years ended December 31 were as follows (in thousands):

	2018	2017	2016
Proceeds from sales	\$ 29,851	\$ 50,084	\$ 95,261
Gross realized gains	73	1,266	2,695
Gross realized losses	200	6	-

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(3.) INVESTMENT SECURITIES (Continued)**

The scheduled maturities of securities available for sale and securities held to maturity at December 31, 2018 are shown below. Actual expected maturities may differ from contractual maturities because issuers may have the right to call or prepay obligations (in thousands).

	<b>Amortized Cost</b>	<b>Fair Value</b>
<b>Debt securities available for sale:</b>		
Due in one year or less	\$ 40,353	\$ 40,005
Due from one to five years	143,746	141,408
Due after five years through ten years	187,690	182,642
Due after ten years	83,793	81,622
	<u>\$ 455,582</u>	<u>\$ 445,677</u>
<b>Debt securities held to maturity:</b>		
Due in one year or less	\$ 48,079	\$ 48,143
Due from one to five years	149,885	150,339
Due after five years through ten years	76,754	74,641
Due after ten years	171,863	166,458
	<u>\$ 446,581</u>	<u>\$ 439,581</u>

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(3) INVESTMENT SECURITIES (Continued)**

Unrealized losses on investment securities and the fair value of the related securities, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position as of December 31 are summarized as follows (in thousands):

	Less than 12 months		12 months or longer		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
<b>December 31, 2018</b>						
<b>Securities available for sale:</b>						
U.S. Government agencies and government sponsored enterprises	\$ -	\$ -	\$ 152,028	\$ 3,074	\$ 152,028	\$ 3,074
Mortgage-backed securities:						
Federal National Mortgage Association	251	1	247,615	6,324	247,866	6,325
Federal Home Loan Mortgage Corporation	-	-	33,918	1,275	33,918	1,275
Government National Mortgage Association	-	-	4,667	76	4,667	76
Collateralized mortgage obligations:						
Federal National Mortgage Association	-	-	56	-	56	-
Federal Home Loan Mortgage Corporation	-	-	6	-	6	-
Total mortgage-backed securities	251	1	286,262	7,675	286,513	7,676
Total available for sale securities	251	1	438,290	10,749	438,541	10,750
<b>Securities held to maturity:</b>						
State and political subdivisions	35,751	91	49,534	1,120	85,285	1,211
Mortgage-backed securities:						
Federal National Mortgage Association	1,518	3	8,695	258	10,213	261
Federal Home Loan Mortgage Corporation	1,467	5	2,923	188	4,390	193
Government National Mortgage Association	11,783	82	22,516	841	34,299	923
Collateralized mortgage obligations:						
Federal National Mortgage Association	-	-	57,973	2,179	57,973	2,179
Federal Home Loan Mortgage Corporation	-	-	75,603	2,597	75,603	2,597
Government National Mortgage Association	-	-	17,263	535	17,263	535
Total mortgage-backed securities	14,768	90	184,973	6,598	199,741	6,688
Total held to maturity securities	50,519	181	234,507	7,718	285,026	7,899
Total temporarily impaired securities	\$ 50,770	\$ 182	\$ 672,797	\$ 18,467	\$ 723,567	\$ 18,649
<b>December 31, 2017</b>						
<b>Securities available for sale:</b>						
U.S. Government agencies and government sponsored enterprises	\$ 95,046	\$ 571	\$ 31,561	\$ 687	\$ 126,607	\$ 1,258
Mortgage-backed securities:						
Federal National Mortgage Association	201,754	1,855	67,383	1,365	269,137	3,220
Federal Home Loan Mortgage Corporation	20,446	192	15,601	483	36,047	675
Government National Mortgage Association	2,432	-	880	12	3,312	12
Collateralized mortgage obligations:						
Federal National Mortgage Association	-	-	119	1	119	1
Federal Home Loan Mortgage Corporation	-	-	8	-	8	-
Total mortgage-backed securities	224,632	2,047	83,991	1,861	308,623	3,908
Total available for sale securities	319,678	2,618	115,552	2,548	435,230	5,166

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(3.) INVESTMENT SECURITIES (Continued)**

	Less than 12 months		12 months or longer		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
<b>December 31, 2017 (continued)</b>						
<b>Securities held to maturity:</b>						
State and political subdivisions	36,368	295	14,492	367	50,860	662
Mortgage-backed securities:						
Federal National Mortgage Association	3,766	29	2,694	59	6,460	88
Federal Home Loan Mortgage Corporation	-	-	3,094	119	3,094	119
Government National Mortgage Association	17,327	136	9,184	194	26,511	330
Collateralized mortgage obligations:						
Federal National Mortgage Association	16,830	202	57,645	1,756	74,475	1,958
Federal Home Loan Mortgage Corporation	23,727	337	66,467	1,828	90,194	2,165
Government National Mortgage Association	15,401	340	5,635	162	21,036	502
Total mortgage-backed securities	77,051	1,044	144,719	4,118	221,770	5,162
Total held to maturity securities	113,419	1,339	159,211	4,485	272,630	5,824
Total temporarily impaired securities	<u>\$ 433,097</u>	<u>\$ 3,957</u>	<u>\$ 274,763</u>	<u>\$ 7,033</u>	<u>\$ 707,860</u>	<u>\$ 10,990</u>

The total number of security positions in the investment portfolio in an unrealized loss position at December 31, 2018 was 571 compared to 411 at December 31, 2017. At December 31, 2018, the Company had positions in 435 investment securities with a fair value of \$672.8 million and a total unrealized loss of \$18.5 million that have been in a continuous unrealized loss position for more than 12 months. At December 31, 2018, there were a total of 136 securities positions in the Company's investment portfolio with a fair value of \$50.8 million and a total unrealized loss of \$182 thousand that had been in a continuous unrealized loss position for less than 12 months. At December 31, 2017, the Company had positions in 172 investment securities with a fair value of \$274.8 million and a total unrealized loss of \$7.0 million that have been in a continuous unrealized loss position for more than 12 months. At December 31, 2017, there were a total of 239 securities positions in the Company's investment portfolio with a fair value of \$433.1 million and a total unrealized loss of \$4.0 million that had been in a continuous unrealized loss position for less than 12 months. The unrealized loss on investment securities was predominantly caused by changes in market interest rates subsequent to purchase. The fair value of most of the investment securities in the Company's portfolio fluctuates as market interest rates change.

The Company reviews investment securities on an ongoing basis for the presence of other than temporary impairment ("OTTI") with formal reviews performed quarterly. When evaluating debt securities for OTTI, management considers many factors, including: (1) the length of time and the extent to which the fair value has been less than cost, (2) the financial condition and near-term prospects of the issuer, (3) whether the market decline was affected by macroeconomic conditions, and (4) whether the Company has the intention to sell the debt security or whether it is more likely than not that it will be required to sell the debt security before its anticipated recovery. The assessment of whether OTTI exists involves a high degree of subjectivity and judgment and is based on the information available to management. No impairment was recorded during the years ended December 31, 2018, 2017 and 2016.

Based on management's review and evaluation of the Company's debt securities as of December 31, 2018, the debt securities with unrealized losses were not considered to be OTTI. As of December 31, 2018, the Company does not have the intent to sell any of the securities in a loss position and believes that it is not likely that it will be required to sell any such securities before the anticipated recovery of amortized cost. Accordingly, as of December 31, 2018, management has concluded that unrealized losses on its investment securities are temporary and no further impairment loss has been realized in the Company's consolidated statements of income.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(4.) LOANS HELD FOR SALE AND LOAN SERVICING RIGHTS**

Loans held for sale were entirely comprised of residential real estate loans and totaled \$2.9 million and \$2.7 million as of December 31, 2018 and 2017, respectively.

The Company sells certain qualifying newly originated or refinanced residential real estate loans on the secondary market. Residential real estate loans serviced for others, which are not included in the consolidated statements of financial condition, amounted to \$171.5 million and \$163.3 million as of December 31, 2018 and 2017, respectively. In connection with these mortgage-servicing activities, the Company administered escrow and other custodial funds which amounted to approximately \$3.7 million as of December 31, 2018 and 2017.

The activity in capitalized loan servicing assets is summarized as follows for the years ended December 31 (in thousands):

	2018	2017	2016
Mortgage servicing assets, beginning of year	\$ 990	\$ 1,077	\$ 1,225
Originations	298	231	150
Amortization	(267)	(318)	(298)
Mortgage servicing assets, end of year	1,021	990	1,077
Valuation allowance	-	-	(2)
Mortgage servicing assets, net, end of year	<u>\$ 1,021</u>	<u>\$ 990</u>	<u>\$ 1,075</u>

**(5.) LOANS**

The Company's loan portfolio consisted of the following at December 31 (in thousands):

	Principal Amount Outstanding	Net Deferred Loan (Fees) Costs	Loans, Net
<b>2018</b>			
Commercial business	\$ 557,040	\$ 821	\$ 557,861
Commercial mortgage	960,265	(2,071)	958,194
Residential real estate loans	514,981	9,174	524,155
Residential real estate lines	106,712	3,006	109,718
Consumer indirect	888,732	31,185	919,917
Other consumer	16,590	163	16,753
Total	<u>\$ 3,044,320</u>	<u>\$ 42,278</u>	3,086,598
Allowance for loan losses			(33,914)
Total loans, net			<u>\$ 3,052,684</u>
<b>2017</b>			
Commercial business	\$ 449,763	\$ 563	\$ 450,326
Commercial mortgage	810,851	(1,943)	808,908
Residential real estate loans	457,761	7,522	465,283
Residential real estate lines	113,422	2,887	116,309
Consumer indirect	845,682	30,888	876,570
Other consumer	17,443	178	17,621
Total	<u>\$ 2,694,922</u>	<u>\$ 40,095</u>	2,735,017
Allowance for loan losses			(34,672)
Total loans, net			<u>\$ 2,700,345</u>

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(5.) LOANS (Continued)**

The Company's significant concentrations of credit risk in the loan portfolio relate to a geographic concentration in the communities that the Company serves.

Certain executive officers, directors and their business interests are customers of the Company. Transactions with these parties are based on the same terms as similar transactions with unrelated third parties and do not carry more than normal credit risk. Borrowings by these related parties amounted to \$10.3 million and \$6.6 million at December 31, 2018 and 2017, respectively. During 2018, new borrowings amounted to \$7.1 million (including borrowings of executive officers and directors that were outstanding at the time of their appointment), and repayments and other reductions were \$3.4 million.

**Past Due Loans Aging**

The Company's recorded investment, by loan class, in current and nonaccrual loans, as well as an analysis of accruing delinquent loans is set forth as of December 31 (in thousands):

	<b>30-59 Days Past Due</b>	<b>60-89 Days Past Due</b>	<b>Greater Than 90 Days</b>	<b>Total Past Due</b>	<b>Nonaccrual</b>	<b>Current</b>	<b>Total Loans</b>
<b>2018</b>							
Commercial business	\$ 227	\$ 1	\$ -	\$ 228	\$ 912	\$ 555,900	\$ 557,040
Commercial mortgage	574	-	-	574	1,586	958,105	960,265
Residential real estate loans	1,295	242	-	1,537	2,391	511,053	514,981
Residential real estate lines	102	-	-	102	255	106,355	106,712
Consumer indirect	2,424	698	-	3,122	1,989	883,621	888,732
Other consumer	139	3	8	150	-	16,440	16,590
Total loans, gross	<u>\$ 4,761</u>	<u>\$ 944</u>	<u>\$ 8</u>	<u>\$ 5,713</u>	<u>\$ 7,133</u>	<u>\$3,031,474</u>	<u>\$3,044,320</u>
<b>2017</b>							
Commercial business	\$ 64	\$ 36	\$ -	\$ 100	\$ 5,344	\$ 444,319	\$ 449,763
Commercial mortgage	56	375	-	431	2,623	807,797	810,851
Residential real estate loans	1,908	56	-	1,964	2,252	453,545	457,761
Residential real estate lines	349	-	-	349	404	112,669	113,422
Consumer indirect	2,806	672	-	3,478	1,895	840,309	845,682
Other consumer	174	15	11	200	2	17,241	17,443
Total loans, gross	<u>\$ 5,357</u>	<u>\$ 1,154</u>	<u>\$ 11</u>	<u>\$ 6,522</u>	<u>\$ 12,520</u>	<u>\$2,675,880</u>	<u>\$2,694,922</u>

There were no loans past due greater than 90 days and still accruing interest as of December 31, 2018 and 2017. There were \$8 thousand and \$11 thousand in consumer overdrafts which were past due greater than 90 days as of December 31, 2018 and 2017, respectively. Consumer overdrafts are overdrawn deposit accounts which have been reclassified as loans but by their terms do not accrue interest.

Interest income on nonaccrual loans, if recognized, is recorded using the cash basis method of accounting. There was no interest income recognized on nonaccrual loans during the years ended December 31, 2018, 2017 and 2016. For the years ended December 31, 2018, 2017 and 2016, estimated interest income of \$294 thousand, \$481 thousand, and \$234 thousand, respectively, would have been recorded if all such loans had been accruing interest according to their original contractual terms.

**Troubled Debt Restructurings**

A modification of a loan constitutes a troubled debt restructuring ("TDR") when a borrower is experiencing financial difficulty and the modification constitutes a concession. Commercial loans modified in a TDR may involve temporary interest-only payments, term extensions, reducing the interest rate for the remaining term of the loan, extending the maturity date at an interest rate lower than the current market rate for new debt with similar risk, collateral concessions, forgiveness of principal, forbearance agreements, or substituting or adding a new borrower or guarantor.

There were no loans modified as a TDR during the year ended December 31, 2018.



**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(5.) LOANS (Continued)**

The following presents, by loan class, information related to loans modified in a TDR during the year ended December 31 (in thousands).

	<b>Number of Contracts</b>	<b>Pre- Modification Outstanding Recorded Investment</b>	<b>Post- Modification Outstanding Recorded Investment</b>
<b>2017</b>			
Commercial business	1	\$ 3,081	\$ 565
Commercial mortgage	-	-	-
Total	<u>1</u>	<u>\$ 3,081</u>	<u>\$ 565</u>

The loans identified as TDRs by the Company during the year ended December 31, 2017 were previously reported as impaired loans prior to restructuring. The modifications during the year ended December 31, 2017 primarily related to collateral concessions. All loans restructured during the year ended December 31, 2017 were on nonaccrual status. Nonaccrual loans that are restructured remain on nonaccrual status but may move to accrual status after they have performed according to the restructured terms for a period of time. The TDR classification did not have a material impact on the Company's determination of the allowance for loan losses because the modified loans were either classified as substandard, with an increased risk allowance allocation, or impaired and evaluated for a specific reserve both before and after restructuring.

There were no loans modified as a TDR during the years ended December 31, 2018 and 2017 that defaulted during the year ended December 31, 2018. For purposes of this disclosure, a loan modified as a TDR is considered to have defaulted when the borrower becomes 90 days past due.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(5.) LOANS (Continued)**

**Impaired Loans**

Management has determined that specific commercial loans on nonaccrual status and all loans that have had their terms restructured in a troubled debt restructuring are impaired loans. The following table presents data on impaired loans at December 31 (in thousands):

	Recorded Investment <sup>(1)</sup>	Unpaid Principal Balance <sup>(1)</sup>	Related Allowance	Average Recorded Investment	Interest Income Recognized
<b>2018</b>					
With no related allowance recorded:					
Commercial business	\$ 319	\$ 487	\$ -	\$ 1,156	\$ -
Commercial mortgage	2,013	2,789	-	692	-
	2,332	3,276	-	1,848	-
With an allowance recorded:					
Commercial business	725	725	205	2,458	-
Commercial mortgage	21	21	1	1,936	-
	746	746	206	4,394	-
	<u>\$ 3,078</u>	<u>\$ 4,022</u>	<u>\$ 206</u>	<u>\$ 6,242</u>	<u>\$ -</u>
<b>2017</b>					
With no related allowance recorded:					
Commercial business	\$ 1,635	\$ 2,370	\$ -	\$ 853	\$ -
Commercial mortgage	584	584	-	621	-
	2,219	2,954	-	1,474	-
With an allowance recorded:					
Commercial business	3,853	3,853	2,056	4,468	-
Commercial mortgage	2,528	2,528	115	1,516	-
	6,381	6,381	2,171	5,984	-
	<u>\$ 8,600</u>	<u>\$ 9,335</u>	<u>\$ 2,171</u>	<u>\$ 7,458</u>	<u>\$ -</u>

<sup>(1)</sup> Difference between recorded investment and unpaid principal balance represents partial charge-offs.

**Credit Quality Indicators**

The Company categorizes loans into risk categories based on relevant information about the ability of borrowers to service their debt such as: current financial information, historical payment experience, credit documentation, public information, and current economic trends, among other factors such as the fair value of collateral. The Company analyzes commercial business and commercial mortgage loans individually by classifying the loans as to credit risk. Risk ratings are updated any time the situation warrants. The Company uses the following definitions for risk ratings:

**Special Mention:** Loans classified as special mention have a potential weakness that deserves management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the loan or of the Company's credit position at some future date.

**Substandard:** Loans classified as substandard are inadequately protected by the current net worth and paying capacity of the obligor or of the collateral pledged, if any. Loans so classified have a well-defined weakness or weaknesses that jeopardize the liquidation of the debt. They are characterized by the distinct possibility that the Company will sustain some loss if the deficiencies are not corrected.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(5.) LOANS (Continued)**

**Doubtful:** Loans classified as doubtful have all the weaknesses inherent in those classified as substandard, with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently existing facts, conditions, and values, highly questionable and improbable.

Loans not meeting the criteria above that are analyzed individually as part of the process described above are considered “uncriticized” or pass-rated loans and are included in groups of homogeneous loans with similar risk and loss characteristics.

The following table sets forth the Company’s commercial loan portfolio, categorized by internally assigned asset classification, as of December 31 (in thousands):

	<b>Commercial Business</b>	<b>Commercial Mortgage</b>
<b>2018</b>		
Uncriticized	\$ 531,756	\$ 943,991
Special mention	16,499	10,633
Substandard	8,785	5,641
Doubtful	-	-
Total	<u>\$ 557,040</u>	<u>\$ 960,265</u>
<b>2017</b>		
Uncriticized	\$ 429,692	\$ 791,127
Special mention	7,120	12,185
Substandard	12,951	7,539
Doubtful	-	-
Total	<u>\$ 449,763</u>	<u>\$ 810,851</u>

The Company utilizes payment status as a means of identifying and reporting problem and potential problem retail loans. The Company considers nonaccrual loans and loans past due greater than 90 days and still accruing interest to be non-performing. The following table sets forth the Company’s retail loan portfolio, categorized by payment status, as of December 31 (in thousands):

	<b>Residential Real Estate Loans</b>	<b>Residential Real Estate Lines</b>	<b>Consumer Indirect</b>	<b>Other Consumer</b>
<b>2018</b>				
Performing	\$ 512,590	\$ 106,457	\$ 886,743	\$ 16,582
Non-performing	2,391	255	1,989	8
Total	<u>\$ 514,981</u>	<u>\$ 106,712</u>	<u>\$ 888,732</u>	<u>\$ 16,590</u>
<b>2017</b>				
Performing	\$ 455,509	\$ 113,018	\$ 843,787	\$ 17,430
Non-performing	2,252	404	1,895	13
Total	<u>\$ 457,761</u>	<u>\$ 113,422</u>	<u>\$ 845,682</u>	<u>\$ 17,443</u>

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(5.) LOANS (Continued)**

**Allowance for Loan Losses**

The following tables set forth the changes in the allowance for loan losses for the years ended December 31 (in thousands):

	Commercial Business	Commercial Mortgage	Residential Real Estate Loans	Residential Real Estate Lines	Consumer Indirect	Other Consumer	Total
<b>2018</b>							
<b>Allowance for loan losses:</b>							
Beginning balance	\$ 15,668	\$ 3,696	\$ 1,322	\$ 180	\$ 13,415	\$ 391	\$ 34,672
Charge-offs	(2,319)	(1,020)	(95)	(142)	(10,850)	(1,308)	(15,734)
Recoveries	509	13	159	20	5,024	317	6,042
Provision (credit)	454	2,530	(274)	152	4,983	1,089	8,934
Ending balance	<u>\$ 14,312</u>	<u>\$ 5,219</u>	<u>\$ 1,112</u>	<u>\$ 210</u>	<u>\$ 12,572</u>	<u>\$ 489</u>	<u>\$ 33,914</u>
Evaluated for impairment:							
Individually	\$ 205	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 206
Collectively	<u>\$ 14,107</u>	<u>\$ 5,218</u>	<u>\$ 1,112</u>	<u>\$ 210</u>	<u>\$ 12,572</u>	<u>\$ 489</u>	<u>\$ 33,708</u>
<b>Loans:</b>							
Ending balance	<u>\$ 557,040</u>	<u>\$ 960,265</u>	<u>\$ 514,981</u>	<u>\$ 106,712</u>	<u>\$ 888,732</u>	<u>\$ 16,590</u>	<u>\$3,044,320</u>
Evaluated for impairment:							
Individually	\$ 1,044	\$ 2,034	\$ -	\$ -	\$ -	\$ -	\$ 3,078
Collectively	<u>\$ 555,996</u>	<u>\$ 958,231</u>	<u>\$ 514,981</u>	<u>\$ 106,712</u>	<u>\$ 888,732</u>	<u>\$ 16,590</u>	<u>\$3,041,242</u>
<b>2017</b>							
<b>Allowance for loan losses:</b>							
Beginning balance	\$ 7,225	\$ 10,315	\$ 1,478	\$ 303	\$ 11,311	\$ 302	\$ 30,934
Charge-offs	(3,614)	(10)	(431)	(106)	(10,164)	(926)	(15,251)
Recoveries	416	262	130	60	4,444	316	5,628
Provision (credit)	11,641	(6,871)	145	(77)	7,824	699	13,361
Ending balance	<u>\$ 15,668</u>	<u>\$ 3,696</u>	<u>\$ 1,322</u>	<u>\$ 180</u>	<u>\$ 13,415</u>	<u>\$ 391</u>	<u>\$ 34,672</u>
Evaluated for impairment:							
Individually	\$ 2,001	\$ 107	\$ -	\$ -	\$ -	\$ -	\$ 2,108
Collectively	<u>\$ 13,667</u>	<u>\$ 3,589</u>	<u>\$ 1,322</u>	<u>\$ 180</u>	<u>\$ 13,415</u>	<u>\$ 391</u>	<u>\$ 32,564</u>
<b>Loans:</b>							
Ending balance	<u>\$ 449,763</u>	<u>\$ 810,851</u>	<u>\$ 457,761</u>	<u>\$ 113,422</u>	<u>\$ 845,682</u>	<u>\$ 17,443</u>	<u>\$2,694,922</u>
Evaluated for impairment:							
Individually	\$ 5,322	\$ 2,852	\$ -	\$ -	\$ -	\$ -	\$ 8,174
Collectively	<u>\$ 444,441</u>	<u>\$ 807,999</u>	<u>\$ 457,761</u>	<u>\$ 113,422</u>	<u>\$ 845,682</u>	<u>\$ 17,443</u>	<u>\$2,686,748</u>

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(5) LOANS (Continued)**

	Commercial Business	Commercial Mortgage	Residential Mortgage	Home Equity	Consumer Indirect	Other Consumer	Total
<b>2016</b>							
<b>Allowance for loan losses:</b>							
Beginning balance	\$ 5,540	\$ 9,027	\$ 1,347	\$ 345	\$ 10,458	\$ 368	\$ 27,085
Charge-offs	(943)	(385)	(289)	(104)	(8,748)	(607)	(11,076)
Recoveries	447	45	174	15	4,259	347	5,287
Provision	2,181	1,628	246	47	5,342	194	9,638
Ending balance	<u>\$ 7,225</u>	<u>\$ 10,315</u>	<u>\$ 1,478</u>	<u>\$ 303</u>	<u>\$ 11,311</u>	<u>\$ 302</u>	<u>\$ 30,934</u>
Evaluated for impairment:							
Individually	<u>\$ 663</u>	<u>\$ 105</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 768</u>
Collectively	<u>\$ 6,562</u>	<u>\$ 10,210</u>	<u>\$ 1,478</u>	<u>\$ 303</u>	<u>\$ 11,311</u>	<u>\$ 302</u>	<u>\$ 30,166</u>
<b>Loans:</b>							
Ending balance	<u>\$ 349,079</u>	<u>\$ 671,552</u>	<u>\$ 421,476</u>	<u>\$ 119,745</u>	<u>\$ 725,754</u>	<u>\$ 17,465</u>	<u>\$ 2,305,071</u>
Evaluated for impairment:							
Individually	<u>\$ 2,052</u>	<u>\$ 935</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2,987</u>
Collectively	<u>\$ 347,027</u>	<u>\$ 670,617</u>	<u>\$ 421,476</u>	<u>\$ 119,745</u>	<u>\$ 725,754</u>	<u>\$ 17,465</u>	<u>\$ 2,302,084</u>

**Risk Characteristics**

Commercial business loans primarily consist of loans to small to mid-sized businesses in our market area in a diverse range of industries. These loans are of higher risk and typically are made on the basis of the borrower's ability to make repayment from the cash flow of the borrower's business. Further, the collateral securing the loans may depreciate over time, may be difficult to appraise and may fluctuate in value. The credit risk related to commercial loans is largely influenced by general economic conditions and the resulting impact on a borrower's operations or on the value of underlying collateral, if any.

Commercial mortgage loans generally have larger balances and involve a greater degree of risk than residential mortgage loans, potentially resulting in higher potential losses on an individual customer basis. Loan repayment is often dependent on the successful operation and management of the properties, as well as on the collateral securing the loan. Economic events or conditions in the real estate market could have an adverse impact on the cash flows generated by properties securing the Company's commercial real estate loans and on the value of such properties.

Residential real estate loans (comprised of conventional mortgages and home equity loans) and residential real estate lines (comprised of home equity lines) are generally made on the basis of the borrower's ability to make repayment from his or her employment and other income but are secured by real property whose value tends to be more easily ascertainable. Credit risk for these types of loans is generally influenced by general economic conditions, the characteristics of individual borrowers, and the nature of the loan collateral.

Consumer indirect and other consumer loans may entail greater credit risk than residential mortgage loans and home equities, particularly in the case of other consumer loans which are unsecured or, in the case of indirect consumer loans, secured by depreciable assets, such as automobiles or boats. In such cases, any repossessed collateral for a defaulted consumer loan may not provide an adequate source of repayment of the outstanding loan balance. In addition, consumer loan collections are dependent on the borrower's continuing financial stability, and thus are more likely to be affected by adverse personal circumstances such as job loss, illness or personal bankruptcy. Furthermore, the application of various federal and state laws, including bankruptcy and insolvency laws, may limit the amount which can be recovered on such loans.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(6.) PREMISES AND EQUIPMENT, NET**

Major classes of premises and equipment at December 31 are summarized as follows (in thousands):

	<b>2018</b>	<b>2017</b>
Land and land improvements	\$ 6,003	\$ 6,003
Buildings and leasehold improvements	54,059	52,900
Furniture, fixtures, equipment and vehicles	39,323	38,716
Premises and equipment	99,385	97,619
Accumulated depreciation and amortization	(56,546)	(52,430)
Premises and equipment, net	<u>\$ 42,839</u>	<u>\$ 45,189</u>

Depreciation and amortization expense relating to premises and equipment, included in occupancy and equipment expense in the consolidated statements of income, amounted to \$5.1 million, \$4.9 million and \$4.6 million for the years ended December 31, 2018, 2017 and 2016, respectively.

**(7.) GOODWILL AND OTHER INTANGIBLE ASSETS**

**Goodwill**

Goodwill is not amortized but, instead, is subject to impairment tests on at least an annual basis, and more frequently if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The Company performs its annual impairment test of goodwill as of October 1<sup>st</sup> of each year. See Note 1 for the Company's accounting policy for goodwill and other intangible assets.

Based on its qualitative assessment performed during the 2018 annual impairment test, the Company concluded it was more likely than not that the fair value of its SDN reporting unit was less than its carrying value. Accordingly, the Company performed a quantitative assessment review for possible goodwill impairment.

Under our quantitative assessment review for goodwill impairment, the fair value of the SDN reporting unit was calculated using income and market-based approaches. Based on this assessment, it was determined that the carrying value of our SDN reporting unit exceeded its fair value. Therefore, the Company recorded a goodwill impairment charge related to the SDN reporting unit of \$2.4 million during the quarter ended December 31, 2018.

The Company completed an evaluation of the contingent earn out liability related to its 2014 acquisition of SDN during the second quarter of 2017, resulting in a contingent consideration liability adjustment of \$1.2 million. Based on this event, a goodwill impairment test was also performed in the second quarter of 2017. Based on its qualitative assessment, the Company concluded it was more likely than not that the fair value of its SDN reporting unit was less than its carrying value. Accordingly, the Company performed a quantitative assessment review for possible goodwill impairment.

Under our quantitative assessment review for goodwill impairment, the fair value of the SDN reporting unit was calculated using income and market-based approaches. Based on this assessment, it was determined that the carrying value of our SDN reporting unit exceeded its fair value. Therefore, the Company recorded a goodwill impairment charge related to the SDN reporting unit of \$1.6 million during the quarter ended June 30, 2017.

The results of the Company's 2018 annual impairment test indicated no impairment for its Banking segment, its Courier Capital reporting unit or its HNP Capital reporting unit; consequently, no goodwill impairment charge for any of them were recorded in 2018.

The results of the Company's 2017 annual impairment test indicated no impairment for its Banking segment or its Courier Capital reporting unit; consequently, no goodwill impairment charge for either was recorded in 2017. In addition, the Company's 2017 annual impairment test indicated no additional impairment for the SDN reporting unit.

The results of the Company's 2016 annual impairment test indicated no impairment; consequently, no goodwill impairment charge was recorded in 2016.

Declines in the market value of the Company's publicly traded stock price or declines in the Company's ability to generate future cash flows may increase the potential that goodwill recorded on the Company's consolidated statement of financial condition be designated as impaired and that the Company may incur a goodwill write-down in the future.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(7.) GOODWILL AND OTHER INTANGIBLE ASSETS (Continued)**

The change in the balance for goodwill during the years ended December 31 was as follows (in thousands):

	<b>Banking</b>	<b>Non-Banking</b>	<b>Total</b>
Balance, January 1, 2017	\$ 48,536	\$ 17,881	\$ 66,417
Impairment	-	(1,575)	(1,575)
Acquisition	-	998	998
Balance, December 31, 2017	48,536	17,304	65,840
Impairment	-	(2,350)	(2,350)
Acquisition	-	2,572	2,572
Balance, December 31, 2018	<u>\$ 48,536</u>	<u>\$ 17,526</u>	<u>\$ 66,062</u>

**Other Intangible Assets**

The Company has other intangible assets that are amortized, consisting of core deposit intangibles and other intangibles. Changes in the gross carrying amount, accumulated amortization and net book value for the years ended December 31 were as follows (in thousands):

	<b>2018</b>	<b>2017</b>
<b>Core deposit intangibles:</b>		
Gross carrying amount	\$ 2,042	\$ 2,042
Accumulated amortization	(1,829)	(1,669)
Net book value	<u>\$ 213</u>	<u>\$ 373</u>
<b>Other intangibles:</b>		
Gross carrying amount	\$ 13,883	\$ 11,378
Accumulated amortization	(3,985)	(2,888)
Net book value	<u>\$ 9,898</u>	<u>\$ 8,490</u>

Core deposit intangible and other intangibles amortization expense was \$160 thousand and \$1.1 million, respectively, for the year ended December 31, 2018. Core deposit intangible and other intangibles amortization expense was \$205 thousand and \$965 thousand, respectively, for the year ended December 31, 2017. Core deposit intangible and other intangibles amortization expense was \$251 thousand and \$998 thousand, respectively, for the year ended December 31, 2016. Estimated amortization expense of other intangible assets for each of the next five years is as follows:

2019	\$	1,250
2020		1,134
2021		1,014
2022		923
2023		852

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(8.) DEPOSITS**

A summary of deposits as of December 31 are as follows (in thousands):

	2018	2017
Noninterest-bearing demand	\$ 755,460	\$ 718,498
Interest-bearing demand	622,482	634,203
Savings and money market	968,897	1,005,317
Time deposits, due:		
Within one year	871,007	678,352
One to two years	91,028	108,653
Two to three years	40,151	29,994
Three to four years	15,956	23,988
Four to five years	1,921	11,169
Thereafter	5	-
Total time deposits	1,020,068	852,156
Total deposits	<u>\$ 3,366,907</u>	<u>\$ 3,210,174</u>

Time deposits in denominations of \$250,000 or more at December 31, 2018 and 2017 amounted to \$209.6 million and \$154.0 million, respectively.

Interest expense by deposit type for the years ended December 31 is summarized as follows (in thousands):

	2018	2017	2016
Interest-bearing demand	\$ 1,067	\$ 897	\$ 833
Savings and money market	2,887	1,487	1,339
Time deposits	15,101	8,709	6,286
Total interest expense on deposits	<u>\$ 19,055</u>	<u>\$ 11,093</u>	<u>\$ 8,458</u>

**(9.) BORROWINGS**

The Company classifies borrowings as short-term or long-term in accordance with the original terms of the agreement. Outstanding borrowings are summarized as follows as of December 31 (in thousands):

	2018	2017
Short-term borrowings:		
Short-term FHLB borrowings	\$ 405,500	\$ 446,200
Other	64,000	-
Total short-term borrowings	469,500	446,200
Long-term borrowings:		
Subordinated notes, net	39,202	39,131
Total borrowings	<u>\$ 508,702</u>	<u>\$ 485,331</u>

**Short-term borrowings**

Short-term FHLB borrowings have original maturities of less than one year and include overnight borrowings that we typically utilize to address short term funding needs as they arise. Short-term FHLB borrowings at December 31, 2018 consisted of \$200.0 million in overnight borrowings and \$205.5 million in short-term advances. Short-term FHLB borrowings at December 31, 2017 consisted of \$304.7 million in overnight borrowings and \$141.5 million in short-term advances. The FHLB borrowings are collateralized by securities from the Company's investment portfolio and certain qualifying loans. In addition, at December 31, 2018, we had \$64.0 million outstanding under unsecured federal funds purchased line with various banks. At December 31, 2018 and 2017, the Company's borrowings had a weighted average rate of 2.64% and 1.50%, respectively.

The Parent has a revolving line of credit with a commercial bank allowing borrowings up to \$20.0 million in total as an additional source of working capital. At December 31, 2018 and 2017, no amounts have been drawn on the line of credit.



**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(9.) BORROWINGS (Continued)**

**Long-term borrowings**

On April 15, 2015, the Company issued \$40.0 million of 6.0% fixed to floating rate subordinated notes due April 15, 2030 (the "Subordinated Notes") in a registered public offering. The Subordinated Notes bear interest at a fixed rate of 6.0% per year, payable semi-annually, for the first 10 years. From April 15, 2025 to the April 15, 2030 maturity date, the interest rate will reset quarterly to an annual interest rate equal to the then current three-month London Interbank Offered Rate (LIBOR) plus 3.944%, payable quarterly. The Subordinated Notes are redeemable by the Company at any quarterly interest payment date beginning on April 15, 2025 to maturity at par, plus accrued and unpaid interest. Proceeds, net of debt issuance costs of \$1.1 million, were \$38.9 million. The net proceeds from this offering were used for general corporate purposes, including but not limited to, contribution of capital to the Bank to support both organic growth and opportunistic acquisitions. The Subordinated Notes qualify as Tier 2 capital for regulatory purposes.

The Company adopted ASU 2015-03 that requires debt issuance costs to be reported as a direct deduction from the face value of the Subordinated Notes and not as a deferred charge. The debt issuance costs will be amortized as an adjustment to interest expense over 15 years.

**(10.) DERIVATIVE INSTRUMENT AND HEDGING ACTIVITIES**

**Risk Management Objective of Using Derivatives**

The Company is exposed to certain risks arising from both its business operations and economic conditions. The Company principally manages its exposures to a wide variety of business and operational risks through management of its core business activities. The Company manages economic risks, including interest rate, liquidity and credit risk, primarily by managing the amount, sources, and duration of its assets and liabilities, and the use of derivative financial instruments. Specifically, the Company enters into derivative financial instruments to manage exposures that arise from business activities that result in the receipt or payment of future known and uncertain cash amounts, the value of which are determined by interest rates. The Company's derivative financial instruments are used to manage differences in the amount, timing, and duration of the Company's known or expected cash receipts and its known or expected cash payments.

**Cash Flow Hedges of Interest Rate Risk**

The Company's objectives in using interest rate derivatives are to add stability to interest expense and to manage its exposure to interest rate movements. To accomplish this objective, the Company primarily uses interest rate caps as part of its interest rate risk management strategy. Interest rate caps designated as cash flow hedges involve the receipt of variable amounts from a counterparty if interest rates rise above the strike rate on the contract in exchange for an up-front premium. During 2018, such derivatives were used to hedge the variable cash flows associated with short-term borrowings.

For derivatives designated and that qualify as cash flow hedges of interest rate risk, the gain or loss on the derivative is recorded in accumulated other comprehensive income (loss) and subsequently reclassified into interest expense in the same period(s) during which the hedged transaction affects earnings. Amounts reported in accumulated other comprehensive income (loss) related to derivatives will be reclassified to interest expense as interest payments are made on the Company's borrowings. The ineffective portion of the change in fair value of the derivatives is recognized directly in earnings. The Company's cash flow hedge derivatives did not have any hedge ineffectiveness recognized in earnings during the years ended December 31, 2018 and 2017. During the next twelve months, the Company estimates that \$145 thousand will be reclassified as an increase to interest expense.

**Interest Rate Swaps**

The Company executes interest rate swaps with commercial banking customers to facilitate their respective risk management strategies. These interest rate swaps are simultaneously hedged by offsetting interest rate swaps that the Company executes with a third party, such that the Company minimizes its net risk exposure resulting from such transactions. As the interest rate swaps associated with this program do not meet hedge accounting requirements, changes in the fair value of both the customer swaps and the offsetting swaps are recognized directly in earnings.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(10.) DERIVATIVE INSTRUMENT AND HEDGING ACTIVITIES (Continued)**

**Credit-risk-related Contingent Features**

The Company has agreements with certain of its derivative counterparties that contain one or more of the following provisions: (a) if the Company defaults on any of its indebtedness, including a default where repayment of the indebtedness has not been accelerated by the lender, the Company could also be declared in default on its derivative obligations, and (b) if the Company fails to maintain its status as a well-capitalized institution, the counterparty could terminate the derivative positions and the Company would be required to settle its obligations under the agreements.

**Mortgage Banking Derivatives**

The Company extends rate lock agreements to borrowers related to the origination of residential mortgage loans. To mitigate the interest rate risk inherent in these rate lock agreements when the Company intends to sell the related loan, once originated, as well as closed residential mortgage loans held for sale, the Company enters into forward commitments to sell individual residential mortgages. Rate lock agreements and forward commitments are considered derivatives and are recorded at fair value.

**Fair Values of Derivative Instruments on the Balance Sheet**

The table below presents the notional amounts, respective fair values of the Company's derivative financial instruments, as well as their classification on the balance sheet as of December 31 (in thousands):

	Gross notional amount		Asset derivatives			Liability derivatives		
			Balance sheet line item	Fair value		Balance sheet line item	Fair value	
	2018	2017		2018	2017		2018	2017
<b>Derivatives designated as hedging instruments</b>								
			Other assets			Other liabilities		
Cash flow hedges	\$ 100,000	\$ -		\$ 631	\$ -		\$ -	\$ -
<b>Total derivatives</b>	<b>\$ 100,000</b>	<b>\$ -</b>		<b>\$ 631</b>	<b>\$ -</b>		<b>\$ -</b>	<b>\$ -</b>
<b>Derivatives not designated as hedging instruments</b>								
			Other assets			Other liabilities		
Interest rate swaps	\$ 71,977	\$ -		\$ 3,113	\$ -		\$ 2,006	\$ -
			Other assets			Other liabilities		
Credit contracts	36,670	12,282		-	-		24	4
			Other assets			Other liabilities		
Mortgage banking	7,519	3,113		83	30		27	3
<b>Total derivatives</b>	<b>\$ 116,166</b>	<b>\$ 15,395</b>		<b>\$ 3,196</b>	<b>\$ 30</b>		<b>\$ 2,057</b>	<b>\$ 7</b>

**Effect of Derivative Instruments on the Income Statement**

The table below presents the effect of the Company's derivative financial instruments on the income statement for the years ended December 31 (in thousands):

Undesignated derivatives	Line item of gain (loss) recognized in income	Gain (loss) recognized in income		
		2018	2017	2016
Interest rate swaps	Income from derivative instruments, net	\$ 759	\$ -	\$ -
Credit contracts	Income from derivative instruments, net	184	131	-
Mortgage banking	Income from derivative instruments, net	29	-	-
<b>Total undesignated</b>		<b>\$ 972</b>	<b>\$ 131</b>	<b>\$ -</b>

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(11.) COMMITMENTS AND CONTINGENCIES**

**Financial Instruments with Off-Balance Sheet Risk**

The Company has financial instruments with off-balance sheet risk established 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. These instruments involve, to varying degrees, elements of credit and interest rate risk extending beyond amounts recognized in the financial statements.

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 and standby letters of credit is essentially the same as that involved with extending loans to customers. The Company uses the same credit underwriting policies in making commitments and conditional obligations as for on-balance sheet instruments.

Off-balance sheet commitments as of December 31 consist of the following (in thousands):

	2018	2017
Commitments to extend credit	\$ 687,875	\$ 661,021
Standby letters of credit	11,977	12,181

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the agreement. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Commitments may expire without being drawn upon; therefore, the total commitment amounts do not necessarily represent future cash requirements. Each customer's creditworthiness is evaluated on a case-by-case basis. The amount of collateral obtained, if any, is based on management's credit evaluation of the borrower. Standby letters of credit are conditional lending commitments issued by the Company to guarantee the performance of a customer to a third party. These standby letters of credit are primarily issued to support private borrowing arrangements. The credit risk involved in issuing standby letters of credit is essentially the same as that involved in extending loan facilities to customers.

**Lease Obligations**

The Company is obligated under a number of non-cancellable operating lease agreements for land, buildings and equipment. Certain of these leases provide for escalation clauses and contain renewal options calling for increased rentals if the lease is renewed. Future minimum payments by year and in the aggregate, under the non-cancellable leases with initial or remaining terms of one year or more, are as follows at December 31, 2018 (in thousands):

2019	\$ 2,495
2020	2,345
2021	2,152
2022	1,842
2023	1,655
Thereafter	29,232
	<u>\$ 39,721</u>

Rent expense relating to these operating leases, included in occupancy and equipment expense in the statements of income, was \$2.9 million, \$2.6 million and \$2.1 million in 2018, 2017 and 2016, respectively.

**Contingent Liabilities**

In the ordinary course of business there are various threatened and pending legal proceedings against the Company. Based on consultation with outside legal counsel, management believes that the aggregate liability, if any, arising from such litigation would not have a material adverse effect on the Company's consolidated financial statements.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(12.) REGULATORY MATTERS**

**General**

The supervision and regulation of financial and bank holding companies and their subsidiaries is intended primarily for the protection of depositors, the deposit insurance funds regulated by the FDIC and the banking system as a whole, and not for the protection of shareholders or creditors of bank holding companies. The various bank regulatory agencies have broad enforcement power over financial holding companies and banks, including the power to impose substantial fines, operational restrictions and other penalties for violations of laws and regulations and for safety and soundness considerations.

**Capital**

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

The Basel III Capital Rules, a new comprehensive capital framework for U.S. banking organizations, became effective for the Company and the Bank on January 1, 2015 (subject to a phase-in period for certain provisions). Quantitative measures established by the Basel III Capital Rules to ensure capital adequacy require the maintenance of minimum amounts and ratios (set forth in the table that follows) of Common Equity Tier 1 capital ("CET1"), Tier 1 capital and Total capital (as defined in the regulations) to risk-weighted assets (as defined), and of Tier 1 capital to adjusted quarterly average assets (as defined).

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

Tier 1 capital includes Common Equity Tier 1 capital and additional Tier 1 capital. For the Company, additional Tier 1 capital at December 31, 2018 includes, subject to limitation, \$17.3 million of preferred stock.

Total capital includes Tier 1 capital and Tier 2 capital. Tier 2 capital for both the Company and the Bank includes a permissible portion of the allowance for loan losses. Tier 2 capital for the Company also includes qualified subordinated debt. At December 31, 2018, the Company's Tier 2 capital included \$39.2 million of Subordinated Notes.

The Common Equity Tier 1, Tier 1 and Total capital ratios are calculated by dividing the respective capital amounts by risk-weighted assets. Risk-weighted assets are calculated based on regulatory requirements and include total assets, with certain exclusions, allocated by risk weight category, and certain off-balance-sheet items, among other things. The leverage ratio is calculated by dividing Tier 1 capital by adjusted quarterly average total assets, which exclude goodwill and other intangible assets, among other things.

The Basel III Capital Rules became fully phased in on January 1, 2019 and will require the Company and the Bank to maintain (i) a minimum ratio of Common Equity Tier 1 capital to risk-weighted assets of at least 4.5%, plus a 2.5% "capital conservation buffer" (which is added to the 4.5% Common Equity Tier 1 capital ratio as that buffer is phased in, effectively resulting in a minimum ratio of Common Equity Tier 1 capital to risk-weighted assets of at least 7.0% upon full implementation), (ii) a minimum ratio of Tier 1 capital to risk-weighted assets of at least 6.0%, plus the capital conservation buffer (which is added to the 6.0% Tier 1 capital ratio as that buffer is phased in, effectively resulting in a minimum Tier 1 capital ratio of 8.5% upon full implementation), (iii) a minimum ratio of Total capital (that is, Tier 1 plus Tier 2) to risk-weighted assets of at least 8.0%, plus the capital conservation buffer (which is added to the 8.0% total capital ratio as that buffer is phased in, effectively resulting in a minimum total capital ratio of 10.5% upon full implementation) and (iv) a minimum leverage ratio of 4.0%, calculated as the ratio of Tier 1 capital to average quarterly assets.

The implementation of the capital conservation buffer began on January 1, 2016 at the 0.625% level and was phased in over a four-year period (increasing by that amount on each subsequent January 1, until it reached 2.5% on January 1, 2019). The Basel III Capital Rules also provide for a "countercyclical capital buffer" that is applicable to only certain covered institutions and does not have any current applicability to the Company or the Bank. The capital conservation buffer is designed to absorb losses during periods of economic stress and, as detailed above, effectively increases the minimum required risk-weighted capital ratios. Banking institutions with a ratio of Common Equity Tier 1 capital to risk-weighted assets below the effective minimum (4.5% plus the capital conservation buffer and, if applicable, the countercyclical capital buffer) will face constraints on dividends, equity repurchases and compensation based on the amount of the shortfall.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(12.) REGULATORY MATTERS (Continued)**

The following table presents actual and required capital ratios as of December 31, 2018 and 2017 for the Company and the Bank under the Basel III Capital Rules. The minimum required capital amounts presented include the minimum required capital levels as of December 31, 2018 based on the phase-in provisions of the Basel III Capital Rules and the minimum required capital levels as of January 1, 2019 when the Basel III Capital Rules have been fully phased-in. Capital levels required to be considered well capitalized are based upon prompt corrective action regulations, as amended to reflect the changes under the Basel III Capital Rules (in thousands):

	Actual		Minimum Capital Required – Basel III Phase-in Schedule		Minimum Capital Required – Basel III Fully Phased-in		Required to be Considered Well Capitalized	
	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
<b>2018</b>								
Tier 1 leverage:								
Company	\$ 344,283	8.16%	\$ 168,759	4.00%	\$ 168,759	4.00%	\$ 210,949	5.00%
Bank	372,939	8.86	168,335	4.00	168,335	4.00	210,419	5.00
CET1 capital:								
Company	326,955	9.70	214,936	6.38	236,008	7.00	219,150	6.50
Bank	372,939	11.09	214,286	6.38	235,294	7.00	218,488	6.50
Tier 1 capital:								
Company	344,283	10.21	265,509	7.88	286,581	8.50	269,723	8.00
Bank	372,939	11.09	264,706	7.88	285,715	8.50	268,908	8.00
Total capital:								
Company	417,399	12.38	332,940	9.88	354,012	10.50	337,154	10.00
Bank	406,853	12.10	331,933	9.88	352,942	10.50	336,135	10.00
<b>2017</b>								
Tier 1 leverage:								
Company	\$ 322,680	8.13%	\$ 158,710	4.00%	\$ 158,710	4.00%	\$ 198,387	5.00%
Bank	346,532	8.75	158,372	4.00	158,372	4.00	197,965	5.00
CET1 capital:								
Company	305,351	10.16	172,825	5.75	210,396	7.00	195,368	6.50
Bank	346,532	11.57	172,224	5.75	209,664	7.00	194,688	6.50
Tier 1 capital:								
Company	322,680	10.74	217,910	7.25	255,481	8.50	240,452	8.00
Bank	346,532	11.57	217,152	7.25	254,592	8.50	239,616	8.00
Total capital:								
Company	396,483	13.19	278,023	9.25	315,594	10.50	300,565	10.00
Bank	381,204	12.73	277,056	9.25	314,496	10.50	299,520	10.00

As of December 31, 2018 and 2017, the Company and Bank were considered “well capitalized” under all regulatory capital guidelines. Such determination has been made based on the Tier 1 leverage, CET1 capital, Tier 1 capital and total capital ratios.

**Federal Reserve Requirements**

The Bank is required to maintain a reserve balance at the FRB of New York. The reserve requirement for the Bank totaled \$5.5 million as of December 31, 2018. As of December 31, 2017, the Bank was not required to maintain a reserve balance at the FRB of New York.

**Dividend Restrictions**

In the ordinary course of business, the Company is dependent upon dividends from the Bank to provide funds for the payment of dividends to shareholders and to provide for other cash requirements. Banking regulations may limit the amount of dividends that may be paid. Approval by regulatory authorities is required if the effect of dividends declared would cause the regulatory capital of the Bank to fall below specified minimum levels. Approval is also required if dividends declared exceed the net profits for that year combined with the retained net profits for the preceding two years.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(13.) SHAREHOLDERS' EQUITY**

The Company's authorized capital stock consists of 50,210,000 shares of capital stock, 50,000,000 of which are common stock, par value \$0.01 per share, and 210,000 of which are preferred stock, par value \$100 per share, which is designated into two classes, Class A of which 10,000 shares are authorized, and Class B of which 200,000 shares are authorized. There are two series of Class A preferred stock: Series A 3% preferred stock and the Series A preferred stock. There is one series of Class B preferred stock: Series B-1 8.48% preferred stock. There were 173,282 and 173,286 shares of preferred stock issued and outstanding as of December 31, 2018 and 2017, respectively.

**Common Stock**

The following table sets forth the changes in the number of shares of common stock for the years ended December 31:

	Outstanding	Treasury	Issued
<b>2018</b>			
Shares outstanding at beginning of year	15,924,938	131,240	16,056,178
Restricted stock awards issued	7,370	(7,370)	-
Restricted stock awards forfeited	(23,901)	23,901	-
Stock options exercised	17,450	(17,450)	-
Stock awards	6,363	(6,363)	-
Treasury stock purchases	(3,622)	3,622	-
Shares outstanding at end of year	<u>15,928,598</u>	<u>127,580</u>	<u>16,056,178</u>
<b>2017</b>			
Shares outstanding at beginning of year	14,537,597	154,617	14,692,214
Common stock issued for "at-the-market" equity offering	1,363,964	-	1,363,964
Restricted stock awards issued	8,898	(8,898)	-
Restricted stock awards forfeited	(10,359)	10,359	-
Stock options exercised	21,320	(21,320)	-
Stock awards	7,841	(7,841)	-
Treasury stock purchases	(4,323)	4,323	-
Shares outstanding at end of year	<u>15,924,938</u>	<u>131,240</u>	<u>16,056,178</u>

On May 30, 2017, the Company entered into a sales agency agreement, with Sandler O'Neill + Partners, L.P. as sales agent, under which it could sell up to \$40.0 million of its common stock through an "at-the-market" equity offering program. The program was completed in November 2017. The Company sold 1,363,964 shares of its common stock under the program at a weighted average price of \$29.33, representing gross proceeds of approximately \$40.0 million. Net proceeds received were approximately \$38.3 million. The Company used the net proceeds of this offering to support organic growth and other general corporate purposes, including contributing capital to the Bank.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(13.) SHAREHOLDERS' EQUITY (Continued)**

**Preferred Stock**

*Series A 3% Preferred Stock.* There were 1,435 and 1,439 shares of Series A 3% preferred stock issued and outstanding as of December 31, 2018 and 2017, respectively. Holders of Series A 3% preferred stock are entitled to receive an annual dividend of \$3.00 per share, which is cumulative and payable quarterly. Holders of Series A 3% preferred stock have no pre-emptive right in, or right to purchase or subscribe for, any additional shares of the Company's capital stock and have no voting rights. Dividend or dissolution payments to the Class A shareholders must be declared and paid, or set apart for payment, before any dividends or dissolution payments can be declared and paid, or set apart for payment, to the holders of Class B preferred stock or common stock. The Series A 3% preferred stock is not convertible into any other of the Company's securities.

*Series B-1 8.48% Preferred Stock.* There were 171,847 shares of Series B-1 8.48% preferred stock issued and outstanding as of December 31, 2018 and 2017. Holders of Series B-1 8.48% preferred stock are entitled to receive an annual dividend of \$8.48 per share, which is cumulative and payable quarterly. Holders of Series B-1 8.48% preferred stock have no pre-emptive right in, or right to purchase or subscribe for, any additional shares of the Company's common stock and have no voting rights. Accumulated dividends on the Series B-1 8.48% preferred stock do not bear interest, and the Series B-1 8.48% preferred stock is not subject to redemption. Dividend or dissolution payments to the Class B shareholders must be declared and paid, or set apart for payment, before any dividends or dissolution payments are declared and paid, or set apart for payment, to the holders of common stock. The Series B-1 8.48% preferred stock is not convertible into any other of the Company's securities.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(14.) ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)**

The following table presents the components of other comprehensive income (loss) for the years ended December 31 (in thousands):

	Pre-tax Amount	Tax Effect	Net-of-tax Amount
<b>2018</b>			
Securities available for sale and transferred securities:			
Change in unrealized gain (loss) during the year	\$ (6,547)	\$ (1,650)	\$ (4,897)
Reclassification adjustment for net gains included in net income <sup>(1)</sup>	539	136	403
Total securities available for sale and transferred securities	(6,008)	(1,514)	(4,494)
Hedging derivative instruments:			
Change in unrealized gain (loss) during the year	(369)	(93)	(276)
Pension and post-retirement obligations:			
Net actuarial gain (loss) arising during the year	(6,823)	(1,721)	(5,102)
Amortization of net actuarial loss and prior service cost included in income	678	171	507
Total pension and post-retirement obligations	(6,145)	(1,550)	(4,595)
Other comprehensive loss	<u>\$ (12,522)</u>	<u>\$ (3,157)</u>	<u>\$ (9,365)</u>
<b>2017</b>			
Securities available for sale and transferred securities:			
Change in unrealized gain (loss) during the year	\$ 1,841	\$ 710	\$ 1,131
Reclassification adjustment for net gains included in net income <sup>(1)</sup>	(1,103)	(426)	(677)
Total securities available for sale and transferred securities	738	284	454
Hedging derivative instruments:			
Change in unrealized gain (loss) during the year	-	-	-
Pension and post-retirement obligations:			
Net actuarial gain (loss) arising during the year	1,460	563	897
Amortization of net actuarial loss and prior service cost included in income	1,115	431	684
Total pension and post-retirement obligations	2,575	994	1,581
Other comprehensive income	<u>\$ 3,313</u>	<u>\$ 1,278</u>	<u>\$ 2,035</u>
<b>2016</b>			
Securities available for sale and transferred securities:			
Change in unrealized gain (loss) during the year	\$ (2,146)	\$ (828)	\$ (1,318)
Reclassification adjustment for net gains included in net income <sup>(1)</sup>	(2,793)	(1,078)	(1,715)
Total securities available for sale and transferred securities	(4,939)	(1,906)	(3,033)
Hedging derivative instruments:			
Change in unrealized gain (loss) during the year	-	-	-
Pension and post-retirement obligations:			
Net actuarial gain (loss) arising during the year	(241)	(93)	(148)
Amortization of net actuarial loss and prior service cost included in income	907	350	557
Total pension and post-retirement obligations	666	257	409
Other comprehensive loss	<u>\$ (4,273)</u>	<u>\$ (1,649)</u>	<u>\$ (2,624)</u>

<sup>(1)</sup> Includes amounts related to the amortization/accretion of unrealized net gains and losses related to the Company's reclassification of available for sale investment securities to the held to maturity category. The unrealized net gains/losses will be amortized/accreted over the remaining life of the investment securities as an adjustment of yield.



**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(14.) ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) (Continued)**

Activity in accumulated other comprehensive income (loss), net of tax, was as follows (in thousands):

	Hedging Derivative Instruments	Securities Available for Sale and Transferred Securities	Pension and Post- retirement Obligations	Accumulated Other Comprehensive Income (Loss)
Balance at January 1, 2018	\$ -	\$ (3,275)	\$ (8,641)	\$ (11,916)
Other comprehensive income (loss) before reclassifications	(276)	(4,897)	(5,102)	(10,275)
Amounts reclassified from accumulated other comprehensive income (loss)	-	403	507	910
Net current period other comprehensive loss	(276)	(4,494)	(4,595)	(9,365)
Balance at December 31, 2018	<u>\$ (276)</u>	<u>\$ (7,769)</u>	<u>\$ (13,236)</u>	<u>\$ (21,281)</u>
Balance at January 1, 2017	\$ -	\$ (3,729)	\$ (10,222)	\$ (13,951)
Other comprehensive income (loss) before reclassifications	-	1,131	897	2,028
Amounts reclassified from accumulated other comprehensive income (loss)	-	(677)	684	7
Net current period other comprehensive income	-	454	1,581	2,035
Balance at December 31, 2017	<u>\$ -</u>	<u>\$ (3,275)</u>	<u>\$ (8,641)</u>	<u>\$ (11,916)</u>
Balance at January 1, 2016	\$ -	\$ (696)	\$ (10,631)	\$ (11,327)
Other comprehensive income (loss) before reclassifications	-	(1,318)	(148)	(1,466)
Amounts reclassified from accumulated other comprehensive income (loss)	-	(1,715)	557	(1,158)
Net current period other comprehensive (loss) income	-	(3,033)	409	(2,624)
Balance at December 31, 2016	<u>\$ -</u>	<u>\$ (3,729)</u>	<u>\$ (10,222)</u>	<u>\$ (13,951)</u>

The following table presents the amounts reclassified out of each component of accumulated other comprehensive income (loss) for the years ended December 31 (in thousands):

Details About Accumulated Other Comprehensive Income Components	Amount Reclassified from Accumulated Other Comprehensive Income		Affected Line Item in the Consolidated Statement of Income
	2018	2017	
Realized (loss) gain on sale of investment securities	\$ (127)	\$ 1,260	Net (loss) gain on investment securities
Amortization of unrealized holding gains (losses) on investment securities transferred from available for sale to held to maturity	(412)	(157)	Interest income
	(539)	1,103	Total before tax
	136	(426)	Income tax benefit (expense)
	(403)	677	Net of tax
Amortization of pension and post-retirement items:			
Prior service credit <sup>(1)</sup>	72	51	Salaries and employee benefits
Net actuarial losses <sup>(1)</sup>	(750)	(1,166)	Salaries and employee benefits
	(678)	(1,115)	Total before tax
	171	431	Income tax benefit
	(507)	(684)	Net of tax
Total reclassified for the period	<u>\$ (910)</u>	<u>\$ (7)</u>	

<sup>(1)</sup> These items are included in the computation of net periodic pension expense. See Note 18 – Employee Benefit Plans for additional information.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(15.) SHARE-BASED COMPENSATION**

The Company maintains certain stock-based compensation plans, approved by the Company's shareholders, that are administered by the Management Development and Compensation Committee (the "Compensation Committee") of the Board. In May 2015, the Company's shareholders approved the 2015 Long-Term Incentive Plan (the "2015 Plan") to replace the 2009 Management Stock Incentive Plan and the 2009 Directors' Stock Incentive Plan (collectively, the "2009 Plans"). A total of 438,076 shares transferred from the 2009 Plans were available for grant pursuant to the 2015 Plan. In addition, any shares subject to outstanding awards under the 2009 Plans that are canceled, expired, forfeited or otherwise not issued or are settled in cash will become available for future award grants under the 2015 Plan. As of December 31, 2018, there were approximately 278,000 shares available for grant under the 2015 Plan.

Under the Plan, the Compensation Committee may establish and prescribe grant guidelines including various terms and conditions for the granting of stock-based compensation. For stock options, the exercise price of each option equals the market price of the Company's stock on the date of the grant. All options expire after a period of ten years from the date of grant and generally become fully exercisable over a period of 3 to 5 years from the grant date. When an option recipient exercises their options, the Company issues shares from treasury stock and records the proceeds as additions to capital. Shares of restricted stock granted to employees generally vest over 2 to 3 years from the grant date. Fifty percent of the shares of restricted stock granted to non-employee directors generally vests on the date of grant and the remaining fifty percent generally vests one year from the grant date. Vesting of the shares may be based on years of service, established performance measures or both. If restricted stock grants are forfeited before they vest, the shares are reacquired into treasury stock. Restricted stock units granted to employees generally fully vest on the third anniversary of the date of grant.

The share-based compensation plans were established to allow for the granting of compensation awards to attract, motivate and retain employees, executive officers and non-employee directors who contribute to the long-term growth and profitability of the Company and to give such persons a proprietary interest in the Company, thereby enhancing their personal interest in the Company's success.

The Company awarded grants of restricted stock units to certain members of management during the year ended December 31, 2018. The awards will be earned based on the Company's achievement of a relative total shareholder return ("TSR") performance requirement, on a percentile basis, compared to the SNL Small Cap Bank & Thrifts Index over a three-year performance period ended December 31, 2020. If earned at target level, members of management will receive up to 14,877 shares of our common stock in the aggregate, which will vest on February 27, 2021 assuming the recipient's continuous service to the Company.

The grant-date fair value of the TSR performance award granted during the year ended December 31, 2018 was determined using the Monte Carlo simulation model on the date of grant, assuming the following (i) expected term of 2.84 years, (ii) risk free interest rate of 2.39%, (iii) expected dividend yield of 2.83% and (iv) expected stock price volatility over the expected term of the TSR performance award of 21.2%. The grant-date fair value of all other restricted stock awards is equal to the closing market price of the Company's common stock on the date of grant.

The Company granted additional restricted stock units to management during the year ended December 31, 2018. These awards will vest after completion of a three-year service requirement. If earned, members of management will receive up to 37,676 shares of our common stock, in the aggregate. The average market price of the restricted stock units on the date of grant was \$27.76.

During the year ended December 31, 2018, the Company granted a total of 7,370 restricted shares of common stock to non-employee directors, of which 3,690 shares vested immediately and 3,680 shares will vest after completion of a one-year service requirement. The weighted average market price of the restricted stock on the date of grant was \$33.90. In addition, the Company issued a total of 6,363 shares of common stock in-lieu of cash for the annual retainer of five non-employee directors during the year ended December 31, 2018. The weighted average market price of the stock on the date of grant was \$29.03.

The Company awarded grants of restricted stock units to certain members of management during the year ended December 31, 2017. The awards will be earned based on the Company's achievement of a TSR performance requirement, on a percentile basis, compared to the SNL Small Cap Bank & Thrifts Index over a three-year performance period ended December 31, 2019. If earned at target level, members of management will receive up to 12,531 shares of our common stock in the aggregate, which will vest on February 22, 2020 assuming the recipient's continuous service to the Company.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(15.) SHARE-BASED COMPENSATION (Continued)**

The grant-date fair value of the TSR performance award granted during the year ended December 31, 2017 was determined using the Monte Carlo simulation model on the date of grant, assuming the following (i) expected term of 2.85 years, (ii) risk free interest rate of 1.45%, (iii) expected dividend yield of 2.41% and (iv) expected stock price volatility over the expected term of the TSR performance award of 21.9%. The grant-date fair value of all other restricted stock awards is equal to the closing market price of the Company's common stock on the date of grant.

The Company granted additional restricted stock units to management during the year ended December 31, 2017. These shares will vest after completion of a three-year service requirement. If earned, members of management will receive up to 27,831 shares of our common stock, in the aggregate. The average market price of the restricted stock units on the date of grant was \$31.88.

During the year ended December 31, 2017, the Company granted a total of 8,898 restricted shares of common stock to non-employee directors, of which 4,454 shares vested immediately and 4,444 shares will vest after completion of a one-year service requirement. The weighted average market price of the restricted stock on the date of grant was \$29.47. In addition, the Company issued a total of 7,841 shares of common stock in-lieu of cash for the annual retainer of six non-employee directors during the year ended December 31, 2017. The weighted average market price of the stock on the date of grant was \$30.88.

The Company awarded grants of restricted stock units to certain members of management during the year ended December 31, 2016. Thirty percent of the shares subject to each grant will be earned based upon achievement of an EPS performance requirement for the Company's fiscal year ended December 31, 2016. The remaining seventy percent of the shares will be earned based on the Company's achievement of a TSR performance requirement, on a percentile basis, compared to the SNL Small Cap Bank & Thrifts Index over a three-year performance period ended December 31, 2018. If earned at target level, members of management will receive up to 24,084 shares of our common stock in the aggregate, which will vest on February 24, 2019 assuming the recipient's continuous service to the Company.

The grant-date fair value of the TSR portion of the performance award granted during the year ended December 31, 2016 was determined using the Monte Carlo simulation model on the date of grant, assuming the following (i) expected term of 2.85 years, (ii) risk free interest rate of 0.88%, (iii) expected dividend yield of 2.99% and (iv) expected stock price volatility over the expected term of the TSR performance award of 24.3%. The grant-date fair value of all other restricted stock awards is equal to the closing market price of the Company's common stock on the date of grant.

The Company granted additional restricted stock units to management during the year ended December 31, 2016. These shares will vest after completion of a three-year service requirement. If earned, members of management will receive up to 25,500 shares of our common stock, in the aggregate. The average market price of the restricted stock awards on the date of grant was \$24.68.

During the year ended December 31, 2016, the Company granted a total of 8,800 restricted shares of common stock to non-employee directors, of which 4,400 shares vested immediately and 4,400 shares will vest after completion of a one-year service requirement. The market price of the restricted stock on the date of grant was \$28.38. In addition, the Company issued a total of 4,322 shares of common stock in-lieu of cash for the annual retainer of three non-employee directors during the year ended December 31, 2016. The weighted average market price of the stock on the date of grant was \$29.47.

The restricted stock awards granted to the directors and the restricted stock units granted to management in 2018, 2017 and 2016 do not have rights to dividends or dividend equivalents.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(15.) SHARE-BASED COMPENSATION (Continued)**

The Company uses the Black-Scholes valuation method to estimate the fair value of its stock option awards. There were no stock options awarded during 2018, 2017 or 2016. There was no unrecognized compensation expense related to unvested stock options as of December 31, 2018. The following is a summary of stock option activity for the year ended December 31, 2018 (dollars in thousands, except per share amounts):

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at beginning of year	22,199	\$ 18.40		
Granted	-	-		
Exercised	(17,450)	18.38		
Forfeited	-	-		
Expired	(4,749)	18.50		
Outstanding and exercisable at end of period	<u>-</u>	\$ -	0.0 years	\$ -

The aggregate intrinsic value (the amount by which the market price of the stock on the date of exercise exceeded the market price of the stock on the date of grant) of option exercises for the years ended December 31, 2018, 2017 and 2016 was \$236 thousand, \$297 thousand, and \$450 thousand, respectively. The total cash received as a result of option exercises under stock compensation plans for the years ended December 31, 2018, 2017 and 2016 was \$320 thousand, \$413 thousand, and \$964 thousand, respectively. The tax benefits realized in connection with these stock option exercises were not significant.

The following is a summary of restricted stock award and restricted stock units activity for the year ended December 31, 2018:

	Number of Shares	Weighted Average Market Price at Grant Date
Outstanding at beginning of year	130,586	\$ 24.32
Granted	59,923	28.39
Vested	(23,836)	25.74
Forfeited	(36,102)	16.67
Outstanding at end of period	<u>130,571</u>	\$ 28.04

As of December 31, 2018, there was \$1.6 million of unrecognized compensation expense related to unvested restricted stock awards and restricted stock units that is expected to be recognized over a weighted average period of 1.8 years.

The Company amortizes the expense related to restricted stock awards and restricted stock units over the vesting period. Share-based compensation expense is recorded as a component of salaries and employee benefits in the consolidated statements of income for awards granted to management and as a component of other noninterest expense for awards granted to directors. The share-based compensation expense for the years ended December 31 was as follows (in thousands):

	2018	2017	2016
Salaries and employee benefits	\$ 1,045	\$ 927	\$ 601
Other noninterest expense	256	247	244
Total share-based compensation expense	<u>\$ 1,301</u>	<u>\$ 1,174</u>	<u>\$ 845</u>

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(16.) INCOME TAXES**

The income tax expense for the years ended December 31 consisted of the following (in thousands):

	2018	2017	2016
Current tax expense (benefit):			
Federal	\$ 19,351	\$ (3,031)	\$ 13,846
State	1,135	573	82
Total current tax expense (benefit)	20,486	(2,458)	13,928
Deferred tax expense (benefit):			
Federal	(10,303)	12,297	(2,175)
State	(177)	106	457
Total deferred tax expense (benefit)	(10,480)	12,403	(1,718)
<b>Total income tax expense</b>	<b>\$ 10,006</b>	<b>\$ 9,945</b>	<b>\$ 12,210</b>

Income tax expense differed from the statutory federal income tax rate for the years ended December 31 as follows:

	2018	2017	2016
Statutory federal tax rate	21.0%	35.0%	35.0%
Increase (decrease) resulting from:			
Tax exempt interest income	(2.6)	(5.6)	(5.6)
Tax credits and adjustments	(0.3)	(6.7)	0.3
Non-taxable earnings on company owned life insurance	(0.8)	(1.4)	(2.2)
State taxes, net of federal tax benefit	1.5	1.1	0.8
Nondeductible expenses	0.2	0.3	0.2
Goodwill and contingent consideration adjustments	1.0	0.3	(0.9)
Other, net	0.2	(0.1)	0.1
<b>Effective tax rate</b>	<b>20.2%</b>	<b>22.9%</b>	<b>27.7%</b>

Total income tax expense (benefit) was as follows for the years ended December 31 (in thousands):

	2018	2017	2016
Income tax expense	\$ 10,006	\$ 9,945	\$ 12,210
Shareholder's equity	(3,156)	3,909	(1,649)

The Company recognizes deferred income taxes for the estimated future tax effects of differences between the tax and financial statement bases of assets and liabilities considering enacted tax laws. These differences result in deferred tax assets and liabilities, which are included in other assets in the Company's consolidated statements of financial condition. The Company also assesses the likelihood that deferred tax assets will be realizable based on, among other considerations, future taxable income and establishes, if necessary, a valuation allowance for those deferred tax assets determined to not likely be realizable. A deferred tax asset valuation allowance is recognized if, based on the weight of available evidence (both positive and negative), it is more likely than not that some portion or all of the deferred tax assets will not be realized. The future realization of deferred tax benefits depends upon the existence of sufficient taxable income within the carry-back and carry-forward periods. Management's judgment is required in determining the appropriate recognition of deferred tax assets and liabilities, including projections of future taxable income.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(16.) INCOME TAXES (Continued)**

The Company's net deferred tax asset (liability) is included in other assets in the consolidated statements of financial condition. The tax effects of temporary differences that give rise to the deferred tax assets and deferred tax liabilities are as follows at December 31 (in thousands):

	2018	2017
Deferred tax assets:		
Allowance for loan losses	\$ 8,550	\$ 8,741
Deferred compensation	1,771	748
Investment in limited partnerships	660	599
SERP agreements	417	320
Interest on nonaccrual loans	106	305
Share-based compensation	541	464
Net unrealized loss on securities available for sale	2,848	1,334
Other	138	66
Gross deferred tax assets	15,031	12,577
Deferred tax liabilities:		
REIT dividend	-	9,412
Prepaid expenses	583	720
Prepaid pension costs	1,415	3,255
Intangible assets	2,581	2,594
Depreciation and amortization	2,096	2,023
Loan servicing assets	258	250
Other	240	102
Gross deferred tax liabilities	7,173	18,356
Net deferred tax asset (liability)	<u>\$ 7,858</u>	<u>\$ (5,779)</u>

In March 2014, the New York legislature approved changes in the state tax law that were phased-in over two years, beginning in 2015. The primary changes that impacted the Company included the repeal of the Article 32 franchise tax on banking corporations ("Article 32A") for 2015, expanded nexus standards for 2015 and a reduction in the corporate tax rate for 2016. The repeal of Article 32A and the expanded nexus standards lowered our taxable income apportioned to New York in 2016 and 2015 compared to 2014. In addition, the New York state income tax rate was reduced from 7.1% to 6.5% in 2016.

On December 22, 2017, the TCJ Act was signed into law which, among other items, reduces the federal statutory corporate tax rate from 35 percent to 21 percent, effective January 1, 2018. The TCJ Act also contains other provisions that may affect the Company currently or in future years. Among these are changes to the deductibility of meals and entertainment, the deductibility of executive compensation, accelerated expensing of depreciable property for assets placed into service after September 27, 2017 and before 2023, limits on the deductibility of net interest expenses, elimination of the corporate alternative minimum tax, limits on net operating loss carrybacks and carryforwards to 80% of taxable income and other provisions.

Results for the fourth quarter and full year of 2017 were positively impacted by a \$2.9 million reduction in income tax expense due to the TCJ Act, primarily driven by a revaluation adjustment to the net deferred tax liability.

Based upon the Company's historical and projected future levels of pre-tax and taxable income, the scheduled reversals of taxable temporary differences to offset future deductible amounts, and prudent and feasible tax planning strategies, management believes it is more likely than not that the deferred tax assets will be realized. As such, no valuation allowance has been recorded as of December 31, 2018 or 2017.

The Company and its subsidiaries are primarily subject to federal and New York income taxes. The federal income tax years currently open for audits are 2015 through 2018. The New York income tax years currently open for audits are 2014 through 2018.

At December 31, 2018, the Company had no federal or New York net operating loss or tax credits carryforwards.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(16.) INCOME TAXES (Continued)**

The Company's unrecognized tax benefits and changes in unrecognized tax benefits were not significant as of or for the years ended December 31, 2018, 2017 and 2016. There were no material interest or penalties recorded in the income statement in income tax expense for the years ended December 31, 2018, 2017 and 2016. As of December 31, 2018 and 2017, there were no amounts accrued for interest or penalties related to uncertain tax positions.

**(17.) EARNINGS PER COMMON SHARE**

The following table presents a reconciliation of the earnings and shares used in calculating basic and diluted EPS for each of the years ended December 31 (in thousands, except per share amounts). All outstanding unvested share-based payment awards that contain rights to non-forfeitable dividends are considered participating securities.

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Net income available to common shareholders	\$ 38,065	\$ 32,064	\$ 30,469
Weighted average common shares outstanding:			
Total shares issued	16,056	15,235	14,689
Unvested restricted stock awards	(8)	(47)	(75)
Treasury shares	(138)	(144)	(178)
Total basic weighted average common shares outstanding	15,910	15,044	14,436
Incremental shares from assumed:			
Exercise of stock options	2	9	20
Vesting of restricted stock awards	44	32	35
Total diluted weighted average common shares outstanding	15,956	15,085	14,491
Basic earnings per common share	\$ 2.39	\$ 2.13	\$ 2.11
Diluted earnings per common share	\$ 2.39	\$ 2.13	\$ 2.10

For each of the periods presented, average shares subject to the following instruments were excluded from the computation of diluted EPS because the effect would be antidilutive:

Stock options	-	-	-
Restricted stock awards	6	1	2
Total	6	1	2

There were no participating securities outstanding for the years ended December 2018, 2017 and 2016; therefore, the two-class method of calculating basic and diluted EPS was not applicable for the years presented.

**(18.) EMPLOYEE BENEFIT PLANS**

**Defined Contribution Plan**

Employees that meet specified eligibility conditions are eligible to participate in the Company sponsored 401(k) plan. Under the plan, participants may make contributions, in the form of salary deferrals, up to the maximum Internal Revenue Code limit. Until December 31, 2015, the Company matched a participant's contributions up to 4.5% of compensation, calculated at 100% of the first 3% of compensation and 50% of the next 3% of compensation deferred by the participant. The Company is also permitted to make additional discretionary matching contributions, although no such additional discretionary contributions were made in 2018, 2017 or 2016. Effective January 1, 2016, the 401(k) Plan was amended to discontinue the Company's matching contribution.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(18.) EMPLOYEE BENEFIT PLANS (Continued)**

**Defined Benefit Pension Plan**

The Company participates in The New York State Bankers Retirement System (the “Plan”), a defined benefit pension plan covering substantially all employees. For employees hired prior to December 31, 2006, who met participation requirements on or before January 1, 2008 (“Tier 1 Participant”), the benefits are generally based on years of service and the employee’s highest average compensation during five consecutive years of employment.

Effective January 1, 2016, the Plan was amended to open the Plan to eligible employees who were hired on and after January 1, 2007 (“Tier 2 Participant”) and provide these eligible participants with a cash balance benefit formula.

The following table provides a reconciliation of the Company’s changes in the Plan’s benefit obligations, fair value of assets and a statement of the funded status as of and for the year ended December 31 (in thousands):

	2018	2017
Change in projected benefit obligation:		
Projected benefit obligation at beginning of period	\$ 70,436	\$ 63,002
Service cost	3,346	3,140
Interest cost	2,387	2,449
Actuarial (gain) loss	(3,298)	5,016
Benefits paid and plan expenses	(3,297)	(3,171)
Projected benefit obligation at end of period	<u>69,574</u>	<u>70,436</u>
Change in plan assets:		
Fair value of plan assets at beginning of period	83,348	75,252
Actual return on plan assets	(4,863)	11,267
Employer contributions	-	-
Benefits paid and plan expenses	(3,297)	(3,171)
Fair value of plan assets at end of period	<u>75,188</u>	<u>83,348</u>
Funded status at end of period	<u>\$ 5,614</u>	<u>\$ 12,912</u>

The accumulated benefit obligation was \$63.3 million and \$65.2 million at December 31, 2018 and 2017, respectively.

The Company’s funding policy is to contribute, at a minimum, an actuarially determined amount that will satisfy the minimum funding requirements determined under the appropriate sections of Internal Revenue Code. The Company has no minimum required contribution for the 2019 fiscal year.

Estimated benefit payments under the Plan over the next ten years at December 31, 2018 are as follows (in thousands):

2019	\$ 3,359
2020	3,232
2021	3,391
2022	3,672
2023	3,903
2024 - 2028	21,596



**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(18.) EMPLOYEE BENEFIT PLANS (Continued)**

Net periodic pension cost consists of the following components for the years ended December 31 (in thousands):

	2018	2017	2016
Service cost	\$ 3,346	\$ 3,140	\$ 2,885
Interest cost on projected benefit obligation	2,387	2,449	2,402
Expected return on plan assets	(5,284)	(4,775)	(4,600)
Amortization of unrecognized loss	725	1,142	938
Amortization of unrecognized prior service (credit) cost	(5)	17	20
Net periodic pension cost	<u>\$ 1,169</u>	<u>\$ 1,973</u>	<u>\$ 1,645</u>

The actuarial assumptions used to determine the net periodic pension cost were as follows:

	2018	2017	2016
Weighted average discount rate	3.49%	4.00%	4.21%
Rate of compensation increase	3.00%	3.00%	3.00%
Expected long-term rate of return	6.50%	6.50%	6.50%

The actuarial assumptions used to determine the projected benefit obligation were as follows:

	2018	2017	2016
Weighted average discount rate	4.13%	3.49%	4.00%
Rate of compensation increase	3.00%	3.00%	3.00%

The weighted average discount rate was based upon the projected benefit cash flows and the market yields of high grade corporate bonds that are available to pay such cash flows.

The weighted average expected long-term rate of return is estimated based on current trends in the Plan's assets as well as projected future rates of return on those assets and reasonable actuarial assumptions based on the guidance provided by Actuarial Standard of Practice No. 27, "Selection of Economic Assumptions for Measuring Pension Obligations" for long term inflation, and the real and nominal rate of investment return for a specific mix of asset classes. The following assumptions were used in determining the long-term rate of return:

Equity securities	Dividend discount model, the smoothed earnings yield model and the equity risk premium model
Fixed income securities	Current yield-to-maturity and forecasts of future yields
Other financial instruments	Comparison of the specific investment's risk to that of fixed income and equity instruments and using other judgments

The long term rate of return considers historical returns. Adjustments were made to historical returns in order to reflect expectations of future returns. These adjustments were due to factor forecasts by economists and long-term U.S. Treasury yields to forecast long-term inflation. In addition, forecasts by economists and others for long-term GDP growth were factored into the development of assumptions for earnings growth and per capita income.

The Plan's overall investment strategy is to achieve a mix of approximately 97% of investments for long-term growth and 3% for near-term benefit payments with a wide diversification of asset types, fund strategies, and fund managers. The target allocations for Plan assets are shown in the table below. Cash equivalents consist primarily of government issues (maturing in less than three months) and short term investment funds. Equity securities primarily include investments in common stock, depository receipts, preferred stock, commingled pension trust funds, exchange traded funds and real estate investment trusts. Fixed income securities include corporate bonds, government issues, credit card receivables, mortgage backed securities, municipals, commingled pension trust funds and other asset backed securities. Other investments are real estate interests and related investments held within a commingled pension trust fund.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(18.) EMPLOYEE BENEFIT PLANS (Continued)**

The Plan currently prohibits its investment managers from purchasing any security greater than 5% of the portfolio at the time of purchase or greater than 8% at market value in any one issuer. Effective June 2013, the issuer of any security purchased must be located in a country in the Morgan Stanley Capital International World Index. In addition, the following are prohibited:

Equity securities	Short sales Unregistered stocks Margin purchases
Fixed income securities	Mortgage backed derivatives that have an inverse floating rate coupon or that are interest only securities Any ABS that is not issued by the U.S. Government or its agencies or its instrumentalities Generally, securities of less than Baa2/BBB quality may not be purchased Securities of less than A-quality may not in the aggregate exceed 13% of the investment manager's portfolio. An investment manager's portfolio of commercial MBS and ABS shall not exceed 10% of the portfolio at the time of purchase.
Other financial instruments	Unhedged currency exposure in countries not defined as "high income economies" by the World Bank

All other investments not prohibited by the Plan are permitted. At December 31, 2018 and 2017, the Plan held certain investments which are no longer deemed acceptable to acquire. The Plan continues to allow managers to maintain currently prohibited positions which were not prohibited at the time of purchase. These positions will be liquidated when the investment managers deem that such liquidation is in the best interest of the Plan.

The target allocation range below is both historic and prospective in that it has not changed since prior to 2013. It is the asset allocation range that the investment managers have been advised to adhere to and within which they may make tactical asset allocation decisions.

	<b>2018 Target Allocation</b>	<b>Percentage of Plan Assets at December 31,</b>		<b>Weighted Average Expected Long-term Rate of Return</b>
	<b>2018</b>	<b>2017</b>		
Asset category:				
Cash equivalents	0 – 20%	4.2%	6.4%	0.11%
Equity securities	40 – 60	46.1	50.2	3.71
Fixed income securities	40 – 60	45.8	40.2	2.24
Other financial instruments	0 – 5	3.9	3.2	0.30

Assets are segregated by the level of the valuation inputs within the fair value hierarchy established by ASC Topic 820 utilized to measure fair value (see Note 19 - Fair Value Measurements).

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(18.) EMPLOYEE BENEFIT PLANS (Continued)**

In instances in which the inputs used to measure fair value fall into different levels of the fair value hierarchy, the fair value measurement has been determined based on the lowest level input that is significant to the fair value measurement in its entirety. Investments valued using the NAV (Net Asset Value) are classified as level 2 if the Plan can redeem its investment with the investee at the NAV at the measurement date. If the Plan can never redeem the investment with the investee at the NAV, it is considered a level 3. If the Plan can redeem the investment at the NAV at a future date, the Plan's assessment of the significance of a particular item to the fair value measurement in its entirety requires judgment, including the consideration of inputs specific to the asset.

The Plan uses the Thomson Reuters Pricing Service to determine the fair value of equities excluding commingled pension trust funds, the pricing service of IDC Corporate USA to determine the fair value of fixed income securities excluding commingled pension trust funds and JP Morgan Chase Bank, N.A. ("JPMorgan") and Northern Trust ("NT") to determine the fair value of commingled pension trust funds.

The following is a table of the pricing methodology and unobservable inputs used by JPMorgan in pricing commingled pension trust funds ("CPTF"):

	Principal Valuation Technique(s) Used	Unobservable Inputs
<b>CPTF – Other:</b>		
CPTF (Strategic Property) of JPMorgan	Market, Income Approach, Debt Service and Sales Comparison	Credit Spreads, Discount Rate, Loan to Value Ratio, Terminal Capitalization Rate and Value per Square Foot

When valuing Commingled Pension Trust Funds (Equity) JPMorgan uses a market methodology and does not rely on unobservable inputs in those valuations. When valuing Commingled Pension Trust Funds (Fixed Income) JPMorgan and NT use a market methodology and do not rely on unobservable inputs in those valuations.

The following table sets forth a summary of the changes in the Plan's level 3 assets for the years ended December 31, 2018 and 2017:

Level 3 assets, January 1, 2017	\$	2,637
Realized gain		43
Purchases		103
Sales		(224)
Unrealized gain		82
Level 3 assets, December 31, 2017		2,641
Unrealized gain		256
Level 3 assets, December 31, 2018	\$	<u>2,897</u>

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(18.) EMPLOYEE BENEFIT PLANS (Continued)**

The major categories of Plan assets measured at fair value on a recurring basis as of December 31 are presented in the following tables (in thousands).

	Level 1 Inputs	Level 2 Inputs	Level 3 Inputs	Total Fair Value
<b>2018</b>				
Cash equivalents:				
Cash (including foreign currencies)	\$ 28	\$ -	\$ -	\$ 28
Short term investment funds	-	3,094	-	3,094
Total cash equivalents	28	3,094	-	3,122
Equity securities:				
Common stock	11,931	-	-	11,931
Depository receipts	203	-	-	203
Commingled pension trust funds	-	22,468	-	22,468
Preferred stock	95	-	-	95
Total equity securities	12,229	22,468	-	34,697
Fixed income securities:				
Collateralized mortgage obligations	-	750	-	750
Commingled pension trust funds	-	20,051	-	20,051
Corporate bonds	-	2,928	-	2,928
GNMA	-	144	-	144
Government securities	-	10,599	-	10,599
Mortgage backed securities	-	-	-	-
Total fixed income securities	-	34,472	-	34,472
Other investments:				
Commingled pension trust funds - Realty	-	-	2,897	2,897
Total Plan investments	<u>\$ 12,257</u>	<u>\$ 60,034</u>	<u>\$ 2,897</u>	<u>\$ 75,188</u>

At December 31, 2018, the portfolio was managed by two investment firms, with control of the portfolio split approximately 62% and 36% under the control of the investment managers with the remaining 2% under the direct control of the Plan. A portfolio concentration in three commingled pension trust funds of 15%, 6% and 6%, respectively, existed at December 31, 2018.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(18.) EMPLOYEE BENEFIT PLANS (Continued)**

	Level 1 Inputs	Level 2 Inputs	Level 3 Inputs	Total Fair Value
<b>2017</b>				
Cash equivalents:				
Cash (including foreign currencies)	\$ 726	\$ -	\$ -	\$ 726
Short term investment funds	-	4,635	-	4,635
Total cash equivalents	726	4,635	-	5,361
Equity securities:				
Common stock	14,523	-	-	14,523
Depository receipts	368	-	-	368
Commingled pension trust funds	-	26,613	-	26,613
Preferred stock	320	-	-	320
Total equity securities	15,211	26,613	-	41,824
Fixed income securities:				
Collateralized mortgage obligations	-	585	-	585
Commingled pension trust funds	-	19,524	-	19,524
Corporate bonds	-	3,068	-	3,068
FNMA	-	167	-	167
Government securities	-	10,117	-	10,117
Mortgage backed securities	-	61	-	61
Total fixed income securities	-	33,522	-	33,522
Other investments:				
Commingled pension trust funds - Realty	-	-	2,641	2,641
Total Plan investments	<u>\$ 15,937</u>	<u>\$ 64,770</u>	<u>\$ 2,641</u>	<u>\$ 83,348</u>

At December 31, 2017, the portfolio was managed by two investment firms, with control of the portfolio split approximately 59% and 37% under the control of the investment managers with the remaining 4% under the direct control of the Plan. A portfolio concentration in two of the commingled pension trust funds and a short term investment fund of 15%, 6% and 6%, respectively, existed at December 31, 2017.

**Postretirement Benefit Plan**

An entity acquired by the Company provided health and dental care benefits to retired employees who met specified age and service requirements through a postretirement health and dental care plan in which both the acquired entity and the retirees shared the cost. The plan provided for substantially the same medical insurance coverage as for active employees until their death and was integrated with Medicare for those retirees aged 65 or older. In 2001, the plan's eligibility requirements were amended to curtail eligible benefit payments to only retired employees and active employees who had already met the then-applicable age and service requirements under the Plan. In 2003, retirees under age 65 began contributing to health coverage at the same cost-sharing level as that of active employees. Retirees ages 65 or older were offered new Medicare supplemental plans as alternatives to the plan historically offered. The cost sharing of medical coverage was standardized throughout the group of retirees aged 65 or older. In addition, to be consistent with the administration of the Company's dental plan for active employees, all retirees who continued dental coverage began paying the full monthly premium. The accrued liability included in other liabilities in the consolidated statements of financial condition related to this plan amounted to \$109 thousand and \$151 thousand as of December 31, 2018 and 2017, respectively. The postretirement expense for the plan that was included in salaries and employee benefits in the consolidated statements of income was not significant for the years ended December 31, 2018, 2017 and 2016. The plan is not funded.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(18.) EMPLOYEE BENEFIT PLANS (Continued)**

The components of accumulated other comprehensive loss related to the defined benefit plan and postretirement benefit plan as of December 31 are summarized below (in thousands):

	2018	2017
<b>Defined benefit plan:</b>		
Net actuarial loss	\$ (20,472)	\$ (14,348)
Prior service credit (cost)	-	5
	(20,472)	(14,343)
<b>Postretirement benefit plan:</b>		
Net actuarial loss	(139)	(190)
Prior service credit	102	169
	(37)	(21)
Total	(20,509)	(14,364)
Deferred tax benefit	7,273	5,723
Amounts included in accumulated other comprehensive loss	<u>\$ (13,236)</u>	<u>\$ (8,641)</u>

Changes in plan assets and benefit obligations recognized in other comprehensive income on a pre-tax basis during the years ended December 31 are as follows (in thousands):

	2018	2017
<b>Defined benefit plan:</b>		
Net actuarial gain (loss)	\$ (6,849)	\$ 1,475
Amortization of net loss	725	1,142
Amortization of prior service (credit) cost	(5)	17
	(6,129)	2,634
<b>Postretirement benefit plan:</b>		
Net actuarial gain (loss)	26	(15)
Amortization of net loss	25	24
Amortization of prior service credit	(67)	(68)
	(16)	(59)
Total recognized in other comprehensive income	<u>\$ (6,145)</u>	<u>\$ 2,575</u>

For the year ending December 31, 2019, the estimated net loss and prior service credit for the plan that will be amortized from accumulated other comprehensive income into net periodic benefit cost is \$1.5 million and \$66 thousand, respectively.

**Supplemental Executive Retirement Agreements**

The Company has non-qualified Supplemental Executive Retirement Agreements (“SERPs”) covering certain former executives. The unfunded pension liability related to the SERPs was \$1.7 million and \$1.9 million at December 31, 2018 and 2017, respectively. SERP expense was \$215 thousand, \$194 thousand, and \$88 thousand for 2018, 2017 and 2016, respectively.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(19.) FAIR VALUE MEASUREMENTS**

**Determination of Fair Value – Assets Measured at Fair Value on a Recurring and Nonrecurring Basis**

**Valuation Hierarchy**

The fair value of an asset or liability is the price that would be received to sell that asset or paid to transfer that liability in an orderly transaction occurring in the principal market (or most advantageous market in the absence of a principal market) for such asset or liability. ASC Topic 820, “Fair Value Measurements and Disclosures,” establishes a fair value hierarchy for valuation inputs that gives the highest priority to quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The fair value hierarchy is as follows:

- **Level 1** - Unadjusted quoted prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.
- **Level 2** - Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. These might include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the asset or liability (such as interest rates, volatilities, prepayment speeds, credit risks, etc.) or inputs that are derived principally from or corroborated by market data by correlation or other means.
- **Level 3** - Unobservable inputs for determining the fair values of assets or liabilities that reflect an entity’s own assumptions about the assumptions that market participants would use in pricing the assets or liabilities.

In general, fair value is based upon quoted market prices, where available. If such quoted market prices are not available, fair value is based upon internally developed models that primarily use, as inputs, observable market-based parameters. Valuation adjustments may be made to ensure that financial instruments are recorded at fair value. These adjustments may include amounts to reflect counterparty credit quality and the company’s creditworthiness, among other things, as well as unobservable parameters. Any such valuation adjustments are applied consistently over time. The Company’s valuation methodologies may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. While management believes the Company’s valuation methodologies are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date. Furthermore, the reported fair value amounts have not been comprehensively revalued since the presentation dates, and therefore, estimates of fair value after the balance sheet date may differ significantly from the amounts presented herein. A more detailed description of the valuation methodologies used for assets and liabilities measured at fair value, as well as the general classification of such instruments pursuant to the valuation hierarchy, is set forth below.

**Securities available for sale:** Securities classified as available for sale are reported at fair value utilizing Level 2 inputs. For these securities, the Company obtains fair value measurements from an independent pricing service. The fair value measurements consider observable data that may include dealer quotes, market spreads, cash flows, the U.S. Treasury yield curve, live trading levels, trade execution data, market consensus prepayment speeds, credit information and the bond’s terms and conditions, among other things.

**Derivative instruments:** The fair value of derivative instruments is determined using quoted secondary market prices for similar financial instruments and are classified as Level 2 in the fair value hierarchy.

**Loans held for sale:** The fair value of loans held for sale is determined using quoted secondary market prices and investor commitments. Loans held for sale are classified as Level 2 in the fair value hierarchy.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(19.) FAIR VALUE MEASUREMENTS (Continued)**

**Collateral dependent impaired loans:** Fair value of impaired loans with specific allocations of the allowance for loan losses is measured based on the value of the collateral securing these loans and is classified as Level 3 in the fair value hierarchy. Collateral may be real estate and/or business assets including equipment, inventory and/or accounts receivable and collateral value is determined based on appraisals performed by qualified licensed appraisers hired by the Company. These appraisals may utilize a single valuation approach or a combination of approaches including comparable sales and the income approach. Appraised and reported values may be discounted based on management's historical knowledge, changes in market conditions from the time of valuation, and/or management's expertise and knowledge of the client and the client's business. Such discounts are typically significant and result in a Level 3 classification of the inputs for determining fair value. Impaired loans are reviewed and evaluated on at least a quarterly basis for additional impairment and adjusted accordingly, based on the same factors identified above.

**Loan servicing rights:** Loan servicing rights do not trade in an active market with readily observable market data. As a result, the Company estimates the fair value of loan servicing rights by using a discounted cash flow model to calculate the present value of estimated future net servicing income. The assumptions used in the discounted cash flow model are those that we believe market participants would use in estimating future net servicing income, including estimates of loan prepayment rates, servicing costs, ancillary income, impound account balances, and discount rates. The significant unobservable inputs used in the fair value measurement of the Company's loan servicing rights are the constant prepayment rates and weighted average discount rate. Significant increases (decreases) in any of those inputs in isolation could result in a significantly lower (higher) fair value measurement. Although the constant prepayment rate and the discount rate are not directly interrelated, they will generally move in opposite directions. Loan servicing rights are classified as Level 3 measurements due to the use of significant unobservable inputs, as well as significant management judgment and estimation.

**Other real estate owned (foreclosed assets):** Nonrecurring adjustments to certain commercial and residential real estate properties classified as other real estate owned are measured at the lower of carrying amount or fair value, less costs to sell. Fair values are generally based on third party appraisals of the property, resulting in a Level 3 classification. The appraisals are sometimes further discounted based on management's historical knowledge, changes in market conditions from the time of valuation, and/or management's expertise and knowledge of the client and client's business. Such discounts are typically significant and result in a Level 3 classification of the inputs for determining fair value. In cases where the carrying amount exceeds the fair value, less costs to sell, an impairment loss is recognized.

**Commitments to extend credit and letters of credit:** Commitments to extend credit and fund letters of credit are principally at current interest rates, and, therefore, the carrying amount approximates fair value. The fair value of commitments is not material.



**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(19) FAIR VALUE MEASUREMENTS (Continued)**

**Assets Measured at Fair Value**

The following tables present for each of the fair-value hierarchy levels the Company's assets that are measured at fair value on a recurring and non-recurring basis as of December 31 (in thousands):

	Quoted Prices in Active Markets for Identical Assets or Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
<b>2018</b>				
<b>Measured on a recurring basis:</b>				
Securities available for sale:				
U.S. Government agencies and government sponsored enterprises	\$ -	\$ 152,028	\$ -	\$ 152,028
Mortgage-backed securities	-	293,649	-	293,649
Other assets:				
Hedging derivative instruments	-	631	-	631
<b>Fair value adjusted through comprehensive income</b>	<u>\$ -</u>	<u>\$ 446,308</u>	<u>\$ -</u>	<u>\$ 446,308</u>
Other assets:				
Derivative instruments – interest rate products	\$ -	\$ 3,113	\$ -	\$ 3,113
Derivative instruments – mortgage banking	-	83	-	83
Other liabilities:				
Derivative instruments – interest rate products	-	(2,006)	-	(2,006)
Derivative instruments – credit contracts	-	(24)	-	(24)
Derivative instruments – mortgage banking	-	(27)	-	(27)
<b>Fair value adjusted through net income</b>	<u>\$ -</u>	<u>\$ 1,139</u>	<u>\$ -</u>	<u>\$ 1,139</u>
<b>Measured on a nonrecurring basis:</b>				
Loans:				
Loans held for sale	\$ -	\$ 2,868	\$ -	\$ 2,868
Collateral dependent impaired loans	-	-	2,872	2,872
Other assets:				
Loan servicing rights	-	-	1,022	1,022
Other real estate owned	-	-	230	230
<b>Total</b>	<u>\$ -</u>	<u>\$ 2,868</u>	<u>\$ 4,124</u>	<u>\$ 6,992</u>

There were no transfers between Levels 1 and 2 during the years ended December 31, 2018 and 2017. There were no liabilities measured at fair value on a nonrecurring basis during the years ended December 31, 2018 and 2017.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(19.) FAIR VALUE MEASUREMENTS (Continued)**

	Quoted Prices in Active Markets for Identical Assets or Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
<b>2017</b>				
<b>Measured on a recurring basis:</b>				
Securities available for sale:				
U.S. Government agencies and government sponsored enterprises	\$ -	\$ 161,889	\$ -	\$ 161,889
Mortgage-backed securities	-	363,084	-	363,084
Other assets:				
Hedging derivative instruments	-	-	-	-
<b>Fair value adjusted through comprehensive income</b>	<u>\$ -</u>	<u>\$ 524,973</u>	<u>\$ -</u>	<u>\$ 524,973</u>
Other assets:				
Derivative instruments – interest rate products	\$ -	\$ -	\$ -	\$ -
Derivative instruments – mortgage banking	-	30	-	30
Other liabilities:				
Derivative instruments – interest rate products	-	-	-	-
Derivative instruments – credit contracts	-	(4)	-	(4)
Derivative instruments – mortgage banking	-	(3)	-	(3)
<b>Fair value adjusted through net income</b>	<u>\$ -</u>	<u>\$ 23</u>	<u>\$ -</u>	<u>\$ 23</u>
<b>Measured on a nonrecurring basis:</b>				
Loans:				
Loans held for sale	\$ -	\$ 2,718	\$ -	\$ 2,718
Collateral dependent impaired loans	-	-	3,847	3,847
Other assets:				
Loan servicing rights	-	-	990	990
Other real estate owned	-	-	148	148
	<u>\$ -</u>	<u>\$ 2,718</u>	<u>\$ 4,985</u>	<u>\$ 7,703</u>

There were no transfers between Levels 1 and 2 during the years ended December 31, 2017 and 2016. There were no liabilities measured at fair value on a nonrecurring basis during the years ended December 31, 2017 and 2016.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(19.) FAIR VALUE MEASUREMENTS (Continued)**

The following table presents additional quantitative information about assets measured at fair value on a recurring and nonrecurring basis for which the Company has utilized Level 3 inputs to determine fair value (dollars in thousands).

Asset	Fair Value	Valuation Technique	Unobservable Input	Unobservable Input Value or Range
Collateral dependent impaired loans	\$ 2,872	Appraisal of collateral <sup>(1)</sup>	Appraisal adjustments <sup>(2)</sup>	10% - 46% discount
Loan servicing rights	\$ 1,022	Discounted cash flow	Discount rate	10.3% <sup>(3)</sup>
			Constant prepayment rate	12.7% <sup>(3)</sup>
Other real estate owned	\$ 230	Appraisal of collateral <sup>(1)</sup>	Appraisal adjustments <sup>(2)</sup>	6% - 49% discount

<sup>(1)</sup> Fair value is generally determined through independent appraisals of the underlying collateral, which generally include various Level 3 inputs which are not identifiable.

<sup>(2)</sup> Appraisals may be adjusted by management for qualitative factors such as economic conditions and estimated liquidation expenses.

<sup>(3)</sup> Weighted averages.

**Changes in Level 3 Fair Value Measurements**

There were no assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) as of or during the years ended December 31, 2018 and 2017.

**Disclosures about Fair Value of Financial Instruments**

The assumptions used below are expected to approximate those that market participants would use in valuing these financial instruments.

Fair value estimates are made at a specific point in time, based on available market information and judgments about the financial instrument, including estimates of timing, amount of expected future cash flows and the credit standing of the issuer. Such estimates do not consider the tax impact of the realization of unrealized gains or losses. In some cases, the fair value estimates cannot be substantiated by comparison to independent markets. In addition, the disclosed fair value may not be realized in the immediate settlement of the financial instrument. Care should be exercised in deriving conclusions about our business, its value or financial position based on the fair value information of financial instruments presented below.

The estimated fair value approximates carrying value for cash and cash equivalents, FHLB and FRB stock, accrued interest receivable, non-maturity deposits, short-term borrowings and accrued interest payable. Fair value estimates for other financial instruments not included elsewhere in this disclosure are discussed below.

**Securities held to maturity:** The fair value of the Company's investment securities held to maturity is primarily measured using information from a third-party pricing service. The fair value measurements consider observable data that may include dealer quotes, market spreads, cash flows, the U.S. Treasury yield curve, live trading levels, trade execution data, market consensus prepayment speeds, credit information and the bond's terms and conditions, among other things.

**Loans:** The fair value of the Company's loans was estimated by discounting the expected future cash flows using the current interest rates at which similar loans would be made for the same remaining maturities. Loans were first segregated by type such as commercial, residential mortgage, and consumer, and were then further segmented into fixed and variable rate and loan quality categories. Expected future cash flows were projected based on contractual cash flows, adjusted for estimated prepayments.

**Time deposits:** The fair value of time deposits was estimated using a discounted cash flow approach that applies prevailing market interest rates for similar maturity instruments. The fair values of the Company's time deposit liabilities do not take into consideration the value of the Company's long-term relationships with depositors, which may have significant value.

**Long-term borrowings:** Long-term borrowings consist of \$40 million of subordinated notes. The subordinated notes are publicly traded and are valued based on market prices, which are characterized as Level 2 liabilities in the fair value hierarchy.

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(19.) FAIR VALUE MEASUREMENTS (Continued)**

The following presents the carrying amount, estimated fair value, and placement in the fair value measurement hierarchy of the Company's financial instruments as of December 31 (in thousands):

	Level in Fair Value Measurement Hierarchy	2018 Carrying Amount	2018 Estimated Fair Value	2017 Carrying Amount	2017 Estimated Fair Value
<b>Financial assets:</b>					
Cash and cash equivalents	Level 1	\$ 102,755	\$ 102,755	\$ 99,195	\$ 99,195
Securities available for sale	Level 2	445,677	445,677	524,973	524,973
Securities held to maturity	Level 2	446,581	439,581	516,466	512,983
Loans held for sale	Level 2	2,868	2,868	2,718	2,718
Loans	Level 2	3,049,812	3,006,161	2,696,498	2,660,936
Loans <sup>(1)</sup>	Level 3	2,872	2,872	3,847	3,847
Accrued interest receivable	Level 1	11,990	11,990	10,776	10,776
FHLB and FRB stock	Level 2	26,375	26,375	27,730	27,730
Derivative instruments – cash flow hedge	Level 2	631	631	-	-
Derivative instruments – interest rate products	Level 2	3,113	3,113	-	-
Derivative instruments – mortgage banking	Level 2	83	83	30	30
<b>Financial liabilities:</b>					
Non-maturity deposits	Level 1	2,346,839	2,346,839	2,358,018	2,358,018
Time deposits	Level 2	1,020,068	1,014,532	852,156	848,055
Short-term borrowings	Level 1	469,500	469,500	446,200	446,200
Long-term borrowings	Level 2	39,202	38,415	39,131	41,485
Accrued interest payable	Level 1	9,280	9,280	8,038	8,038
Derivative instruments – interest rate products	Level 2	2,006	2,006	-	-
Derivative instruments – credit contracts	Level 2	24	24	4	4
Derivative instruments – mortgage banking	Level 2	27	27	3	3

<sup>(1)</sup> Comprised of collateral dependent impaired loans.

**(20.) PARENT COMPANY FINANCIAL INFORMATION**

Condensed financial statements pertaining only to the Parent are presented below (in thousands).

Condensed Statements of Financial Condition	December 31,	
	2018	2017
<b>Assets:</b>		
Cash and due from subsidiary	\$ 7,377	\$ 10,687
Investment in and receivables due from subsidiary	429,202	409,127
Other assets	6,199	5,901
Total assets	\$ 442,778	\$ 425,715
<b>Liabilities and shareholders' equity:</b>		
Long-term borrowings, net of issuance costs of \$869 and \$939, respectively	\$ 39,202	\$ 39,131
Other liabilities	7,283	5,407
Shareholders' equity	396,293	381,177
Total liabilities and shareholders' equity	\$ 442,778	\$ 425,715

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(20.) PARENT COMPANY FINANCIAL INFORMATION (Continued)**

**Condensed Statements of Income**

	Years ended December 31,		
	2018	2017	2016
Dividends from subsidiary and associated companies	\$ 20,000	\$ 12,000	\$ 16,000
Management and service fees from subsidiaries	137	1,185	855
Other income	137	1,298	1,296
Total income	20,274	14,483	18,151
Interest expense	2,471	2,471	2,471
Operating expenses	4,156	4,249	5,950
Total expense	6,627	6,720	8,421
Income before income tax benefit and equity in undistributed earnings of subsidiary	13,647	7,763	9,730
Income tax benefit	1,745	1,817	2,783
Income before equity in undistributed earnings of subsidiary	15,392	9,580	12,513
Equity in undistributed earnings of subsidiary	24,134	23,946	19,418
Net income	<u>\$ 39,526</u>	<u>\$ 33,526</u>	<u>\$ 31,931</u>

**Condensed Statements of Cash Flows**

	Years ended December 31,		
	2018	2017	2016
<b>Cash flows from operating activities:</b>			
Net income	\$ 39,526	\$ 33,526	\$ 31,931
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in undistributed earnings of subsidiary	(24,134)	(23,946)	(19,418)
Depreciation and amortization	152	149	148
Share-based compensation	1,301	1,174	845
(Increase) decrease in other assets	(175)	(1,673)	1,772
Increase (Decrease) in other liabilities	1,548	(1,211)	(389)
Net cash provided by operating activities	18,218	8,019	14,889
<b>Cash flows from investing activities:</b>			
Capital investment in subsidiaries	(803)	(38,405)	-
Purchase of premises and equipment	(19)	(44)	(1,290)
Net cash paid for acquisition	(4,503)	-	(918)
Net cash used in investing activities	(5,325)	(38,449)	(2,208)
<b>Cash flows from financing activities:</b>			
Proceeds from issuance of common shares	-	38,303	-
Purchase of preferred and common shares	(114)	(157)	-
Proceeds from stock options exercised	320	413	964
Dividends paid	(16,409)	(13,958)	(12,946)
Other	-	-	30
Net cash (used in) provided by financing activities	(16,203)	24,601	(11,952)
Net (decrease) increase in cash and cash equivalents	(3,310)	(5,829)	729
Cash and cash equivalents as of beginning of year	10,687	16,516	15,787
Cash and cash equivalents as of end of the year	<u>\$ 7,377</u>	<u>\$ 10,687</u>	<u>\$ 16,516</u>

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(21.) SEGMENT REPORTING**

The Company has two reportable segments: Banking and Non-Banking. These reportable segments have been identified and organized based on the nature of the underlying products and services applicable to each segment, the type of customers to whom those products and services are offered and the distribution channel through which those products and services are made available.

The Banking segment includes all of the Company's retail and commercial banking operations. The Non-Banking segment includes the activities of SDN, a full service insurance agency that provides a broad range of insurance services to both personal and business clients, and Courier Capital and HNP Capital, our investment advisor and wealth management firms that provide customized investment advice, wealth management, investment consulting and retirement plan services to individuals, businesses, institutions, foundations and retirement plans. Holding company amounts are the primary differences between segment amounts and consolidated totals, and are reflected in the Holding Company and Other column below, along with amounts to eliminate balances and transactions between segments.

The following table presents information regarding the Company's business segments as of the dates indicated (in thousands).

	Banking	Non-Banking	Holding Company and Other	Consolidated Totals
<b>December 31, 2018</b>				
Goodwill	\$ 48,536	\$ 17,526	\$ -	\$ 66,062
Other intangible assets, net	213	9,898	-	10,111
Total assets	4,272,439	35,975	3,284	4,311,698
<b>December 31, 2017</b>				
Goodwill	\$ 48,536	\$ 17,304	\$ -	\$ 65,840
Other intangible assets, net	373	8,490	-	8,863
Total assets	4,069,086	31,466	4,658	4,105,210

**FINANCIAL INSTITUTIONS, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2018, 2017 and 2016**

**(21.) SEGMENT REPORTING (Continued)**

The following table presents information regarding the Company's business segments for the periods indicated (in thousands).

	<b>Banking</b>	<b>Non- Banking <sup>(1)</sup></b>	<b>Holding Company and Other</b>	<b>Consolidated Totals</b>
<b>Year ended December 31, 2018</b>				
Net interest income (expense)	\$ 125,334	\$ -	\$ (2,470)	\$ 122,864
Provision for loan losses	(8,934)	-	-	(8,934)
Noninterest income	26,295	10,780	(597)	36,478
Noninterest expense <sup>(2)</sup>	(84,927)	(12,663)	(3,286)	(100,876)
Income (loss) before income taxes	57,768	(1,883)	(6,353)	49,532
Income tax (expense) benefit	(11,622)	(129)	1,745	(10,006)
Net income (loss)	<u>\$ 46,146</u>	<u>\$ (2,012)</u>	<u>\$ (4,608)</u>	<u>\$ 39,526</u>
<b>Year ended December 31, 2017</b>				
Net interest income (expense)	\$ 115,086	\$ -	\$ (2,471)	\$ 112,615
Provision for loan losses	(13,361)	-	-	(13,361)
Noninterest income	24,921	9,172	637	34,730
Noninterest expense <sup>(2)</sup>	(78,845)	(9,264)	(2,404)	(90,513)
Income (loss) before income taxes	47,801	(92)	(4,238)	43,471
Income tax (expense) benefit	(12,253)	491	1,817	(9,945)
Net income (loss)	<u>\$ 35,548</u>	<u>\$ 399</u>	<u>\$ (2,421)</u>	<u>\$ 33,526</u>
<b>Year ended December 31, 2016</b>				
Net interest income (expense)	\$ 105,161	\$ -	\$ (2,471)	\$ 102,690
Provision for loan losses	(9,638)	-	-	(9,638)
Noninterest income	26,457	8,567	736	35,760
Noninterest expense	(73,056)	(7,080)	(4,535)	(84,671)
Income (loss) before income taxes	48,924	1,487	(6,270)	44,141
Income tax (expense) benefit	(14,409)	(584)	2,783	(12,210)
Net income (loss)	<u>\$ 34,515</u>	<u>\$ 903</u>	<u>\$ (3,487)</u>	<u>\$ 31,931</u>

<sup>(1)</sup> Reflects activity from Courier Capital since January 5, 2016 (the date of acquisition), from the acquisition of the assets of Robshaw & Julian since August 31, 2017 (the date of acquisition) and from HNP Capital since June 1, 2018 (the date of acquisition).

<sup>(2)</sup> Non-Banking segment includes SDN reporting unit goodwill impairment of \$2.4 million and \$1.6 million for years ended December 31, 2018 and 2017, respectively.

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**ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

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None.

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**ITEM 9A. CONTROLS AND PROCEDURES**

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**Effectiveness of Controls and Procedures**

As of the end of the period covered by this report, the Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer (Principal Executive Officer) and Chief Financial Officer (Principal Financial Officer), of the effectiveness of the design and operation of the Company's disclosure controls and procedures pursuant to Rule 13a-15(b), as adopted by the Securities and Exchange Commission ("SEC") under the Securities Exchange Act of 1934 ("Exchange Act"). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective as of the end of the period covered by this Annual Report on Form 10-K.

Disclosure controls and procedures are the controls and other procedures that are designed to ensure that information required to be disclosed in the reports that the Company files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in the reports that the Company files or submits under the Exchange Act is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

**Management Report on Internal Control over Financial Reporting and Attestation Report of Independent Registered Public Accounting Firm**

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. Management assessed the Company's internal control over financial reporting based on criteria established in the *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management has concluded that, as of December 31, 2018, the Company maintained effective internal control over financial reporting. Management's Report on Internal Control over Financial Reporting is included under Item 8 "Financial Statements and Supplementary Data" in Part II of this Form 10-K.

RSM US LLP, an independent registered public accounting firm, has audited the consolidated financial statements as of and for the year ended December 31, 2018 which are included in this Annual Report on Form 10-K, and has issued a report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2018. The Report of the Independent Registered Public Accounting Firm that attests the effectiveness of internal control over financial reporting is included under Item 8 "Financial Statements and Supplementary Data" in Part II of this Form 10-K.

**Changes in Internal Control over Financial Reporting**

There were no changes in the Company's internal control over financial reporting that occurred during the quarter ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

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**ITEM 9B. OTHER INFORMATION**

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Not applicable.



## PART III

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### ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

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In response to this Item, the information set forth in the Company's Proxy Statement for its 2019 Annual Meeting of Shareholders (the "2019 Proxy Statement") to be filed within 120 days following the end of the Company's fiscal year, under the headings "Proposal 1 - Election of Directors," "Business Experience and Qualification of Directors," "Our Executive Officers," and "Section 16(a) Beneficial Ownership Reporting Compliance" is incorporated herein by reference.

Information concerning the Company's Audit Committee and the Audit Committee's financial expert is set forth under the caption "Board Meetings and Committees" in the 2019 Proxy Statement and is incorporated herein by reference.

Information concerning the Company's Code of Business Conduct and Ethics is set forth under the caption "Code of Ethics" in the 2019 Proxy Statement and is incorporated herein by reference.

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### ITEM 11. EXECUTIVE COMPENSATION

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In response to this Item, the information set forth in the 2019 Proxy Statement under the headings "Compensation Discussion and Analysis," "Executive Compensation Tables," "Management Development and Compensation Committee Interlocks and Insider Participation," "Director Compensation," and "Management Development and Compensation Committee Report" is incorporated herein by reference.

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### ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

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In response to this Item, the information set forth in the 2019 Proxy Statement under the heading "Security Ownership of Certain Beneficial Owners and Management" is incorporated herein by reference.

#### Equity Compensation Plan Information

The following table sets forth, as of December 31, 2018, information about our equity compensation plans that have been approved by our shareholders, including the number of shares of our common stock exercisable under all outstanding options, warrants and rights, the weighted average exercise price of all outstanding options, warrants and rights and the number of shares available for future issuance under our equity compensation plans. We have no equity compensation plans that have not been approved by our shareholders.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted average exercise price of outstanding options, warrants and rights (b) <sup>(1)</sup>	Number of securities remaining for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by shareholders	126,891 <sup>(1)</sup>	\$ -	277,596
Equity compensation plans not approved by shareholders	-	\$ -	-

<sup>(1)</sup> Comprised of restricted stock units granted under our 2015 Plan. See Note 15, Share-Based Compensation, to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K for further details. All restricted stock units are excluded from the weighted average exercise price column.

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### ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

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In response to this Item, the information set forth in the 2019 Proxy Statement under the headings "Certain Relationships and Related Transactions" and "Board Independence" is incorporated herein by reference.

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### ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

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In response to this Item, the information set forth in the 2019 Proxy Statement under the heading "Independent Registered Public Accounting Firm" is incorporated herein by reference.

## PART IV

### ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) **FINANCIAL STATEMENTS**

Reference is made to the Index to Consolidated Financial Statements of Financial Institutions, Inc. and subsidiaries under Item 8 “Financial Statements and Supplementary Data” in Part II of this Annual Report on Form 10-K.

(b) **EXHIBITS**

The following is a list of all exhibits filed or incorporated by reference as part of this Report.

<b>Exhibit Number</b>	<b>Description</b>	<b>Location</b>
3.1	Amended and Restated Certificate of Incorporation of the Company	Incorporated by reference to Exhibits 3.1, 3.2 and 3.3 of the Form 10-K for the year ended December 31, 2008, dated March 12, 2009
3.2	Amended and Restated Bylaws of the Company	Incorporated by reference to Exhibit 3.1 of the Form 8-K, dated December 30, 2016
4.1	Subordinated Indenture, dated as of April 15, 2015, between Financial Institutions, Inc. and Wilmington Trust, National Association, as Trustee	Incorporated by reference to Exhibit 4.1 of the Form 8-K, dated April 15, 2015
4.2	First Supplemental Indenture, dated as of April 15, 2015, between Financial Institutions, Inc. and Wilmington Trust, National Association, as Trustee	Incorporated by reference to Exhibit 4.2 of the Form 8-K, dated April 15, 2015
4.3	Form of Global Note to represent the 6.00% Fixed-to-Floating Rate Subordinated Notes due April 15, 2030	Incorporated by reference to Exhibit A of Exhibit 4.2 of the Form 8-K, dated April 15, 2015
10.1	Voluntary Retirement Agreement with Ronald A. Miller	Incorporated by reference to Exhibit 10.2 of the Form 8-K, dated September 26, 2008
10.2	Amendment to Voluntary Retirement Agreement with Ronald A. Miller	Incorporated by reference to Exhibit 10.1 of the Form 8-K, dated March 3, 2010
10.3	Supplemental Executive Retirement Agreement between Financial Institutions, Inc. and Peter G. Humphrey	Incorporated by reference to Exhibit 10.3 of the Form 10-Q for the quarterly period ended September 30, 2012, dated November 6, 2012
10.4	Supplemental Executive Retirement Agreement between Financial Institutions, Inc. and Richard J. Harrison	Incorporated by reference to Exhibit 10.1 of the Form 10-Q for the quarterly period ended June 30, 2014, dated August 5, 2014
10.5	Financial Institutions, Inc. 2015 Long-Term Incentive Plan	Incorporated by reference to Exhibit 10.1 of the Form 10-Q for the quarterly period ended June 30, 2015, dated August 5, 2015
10.6	Form of Director Annual Restricted Stock Award Agreement Pursuant to the Financial Institutions, Inc. 2015 Long-Term Incentive Plan	Incorporated by reference to Exhibit 10.2 of the Form 10-Q for the quarterly period ended June 30, 2015, dated August 5, 2015
10.7	Form of Director “In Lieu of Cash Fees” Stock Award Agreement Pursuant to the Financial Institutions, Inc. 2015 Long-Term Incentive Plan	Incorporated by reference to Exhibit 10.3 of the Form 10-Q for the quarterly period ended June 30, 2015, dated August 5, 2015
10.8	Form of Restricted Stock Award Agreement Pursuant to the Financial Institutions, Inc. 2015 Long-Term Incentive Plan	Incorporated by reference to Exhibit 10.4 of the Form 10-Q for the quarterly period ended June 30, 2015, dated August 5, 2015
10.9	Form of Performance Stock Award Agreement Pursuant to the Financial Institutions, Inc. 2015 Long-Term Incentive Plan	Incorporated by reference to Exhibit 10.5 of the Form 10-Q for the quarterly period ended June 30, 2015, dated August 5, 2015

10.10	Form of Restricted Stock Unit Award Agreement Pursuant to the Financial Institutions, Inc. 2015 Long-Term Incentive Plan	Incorporated by reference to Exhibit 10.6 of the Form 10-Q for the quarterly period ended June 30, 2015, dated August 5, 2015
10.11	Form of Performance Stock Unit Award Agreement Pursuant to the Financial Institutions, Inc. 2015 Long-Term Incentive Plan	Incorporated by reference to Exhibit 10.7 of the Form 10-Q for the quarterly period ended June 30, 2015, dated August 5, 2015
10.12	Form of Indemnification Agreement	Incorporated by reference to Exhibit 10.1 of the Form 8-K, dated December 30, 2016
10.13	Amended and Restated Executive Agreement, dated May 3, 2017, by and between Financial Institutions, Inc. and Martin K. Birmingham	Incorporated by reference to Exhibit 10.1 of the Form 8-K, dated May 4, 2017
10.14	Amended and Restated Executive Agreement, dated May 3, 2017, by and between Financial Institutions, Inc. and Kevin B. Klotzbach	Incorporated by reference to Exhibit 10.2 of the Form 8-K, dated May 4, 2017
10.15	Executive Agreement, dated May 3, 2017, by and between Financial Institutions, Inc. and Michael D. Burneal	Incorporated by reference to Exhibit 10.3 of the Form 8-K, dated May 4, 2017
10.16	Executive Agreement, dated May 3, 2017, by and between Financial Institutions, Inc. and Jeffrey P. Kenefick	Incorporated by reference to Exhibit 10.4 of the Form 8-K, dated May 4, 2017
10.17	Executive Agreement, dated May 3, 2017, by and between Financial Institutions, Inc. and William L. Kreienberg	Incorporated by reference to Exhibit 10.5 of the Form 8-K, dated May 4, 2017
10.18	Sales Agency Agreement, dated May 30, 2017, by and between Financial Institutions, Inc. and Sandler O'Neill + Partners, L.P.	Incorporated by reference to Exhibit 10.1 of the Form 8-K, dated May 30, 2017
10.19	Supplemental Executive Retirement Agreement between Financial Institutions, Inc. and Kevin B. Klotzbach dated June 26, 2018	Incorporated by reference to Exhibit 10.1 of the Form 10-Q for the quarterly period ended June 30, 2018, dated August 8, 2018
10.20	Severance and Settlement Agreement and Release with Michael D. Burneal	Filed Herewith
21	Subsidiaries of Financial Institutions, Inc.	Filed Herewith
23.1	Consent of Independent Registered Public Accounting Firm, RSM US LLP	Filed Herewith
23.2	Consent of Independent Registered Public Accounting Firm, KPMG LLP	Filed Herewith
31.1	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 - Principal Executive Officer	Filed Herewith
31.2	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 - Principal Financial Officer	Filed Herewith
32	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Filed Herewith
101.INS	XBRL Instance Document	
101.SCH	XBRL Taxonomy Extension Schema Document	
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	

All material agreements consist of management contracts, compensatory plans or arrangements.

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## ITEM 16. FORM 10-K SUMMARY

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None.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

### FINANCIAL INSTITUTIONS, INC.

March 8, 2019

By: /s/ *Martin K. Birmingham*  
Martin K. Birmingham  
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act 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.

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ <i>Martin K. Birmingham</i></u> Martin K. Birmingham	Director, President and Chief Executive Officer (Principal Executive Officer)	March 8, 2019
<u>/s/ <i>Kevin B. Klotzbach</i></u> Kevin B. Klotzbach	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	March 8, 2019
<u>/s/ <i>Michael D. Grover</i></u> Michael D. Grover	Senior Vice President and Chief Accounting Officer (Principal Accounting Officer)	March 8, 2019
<u>/s/ <i>Karl V. Anderson, Jr.</i></u> Karl V. Anderson, Jr.	Director	March 8, 2019
<u>/s/ <i>Donald K. Boswell</i></u> Donald K. Boswell	Director	March 8, 2019
<u>/s/ <i>Dawn H. Burlew</i></u> Dawn H. Burlew	Director	March 8, 2019
<u>/s/ <i>Andrew W. Dorn, Jr.</i></u> Andrew W. Dorn, Jr.	Director	March 8, 2019
<u>/s/ <i>Robert M. Glaser</i></u> Robert M. Glaser	Director	March 8, 2019
<u>/s/ <i>Samuel M. Gullo</i></u> Samuel M. Gullo	Director	March 8, 2019
<u>/s/ <i>Susan R. Holliday</i></u> Susan R. Holliday	Director	March 8, 2019
<u>/s/ <i>Robert N. Latella</i></u> Robert N. Latella	Director, Chairman	March 8, 2019
<u>/s/ <i>Kim E. VanGelder</i></u> Kim E. VanGelder	Director	March 8, 2019
<u>/s/ <i>James H. Wyckoff</i></u> James H. Wyckoff	Director	March 8, 2019

# Investor Information

## Corporate Headquarters

220 Liberty Street  
Warsaw, New York 14569

## Corporate Website

Financial results, corporate announcements, dividend news and corporate governance information is available on the Company's website: [www.fiiwarsaw.com](http://www.fiiwarsaw.com)

## Annual Meeting

The 2019 Annual Meeting of Shareholders will be held at 10:00 a.m. EDT on June 19, 2019, at 220 Liberty Street in Warsaw, New York.

## Transfer Agent

Our transfer agent, American Stock Transfer & Trust Co., maintains the records for our registered shareholders and can assist you with a variety of stockholder services including address changes, certificate replacement and other inquiries regarding your account.

## American Stock Transfer & Trust Company, LLC

6201 15th Avenue  
Brooklyn, New York 11219

Phone: 800-937-5449

Teletypewriter for the hearing impaired: 866-703-9077

[help@astfinancial.com](mailto:help@astfinancial.com)

Website: [www.astfinancial.com](http://www.astfinancial.com)

## Stock Exchange Information

Nasdaq Global Select Market  
Ticker Symbol: FISJ

## Form 10-K and Other Reports

This Annual Report includes the Financial Institutions, Inc. Annual Report on Form 10-K. The Form 10-K Report filed with the U.S. Securities and Exchange Commission in March 2019 also contains additional information including exhibits.

The Form 10-K can be viewed at [www.fiiwarsaw.com](http://www.fiiwarsaw.com), Financials/SEC Filings, and is also available without charge upon request to Samuel J. Burruano, Jr., Corporate Secretary, 220 Liberty Street, Warsaw, New York 14569.



## Executive Management Committee

**Seated** (from the left): William L. Kreienberg, Martin K. Birmingham and Kevin B. Klotzbach

**Standing** (from the left): Sean M. Willett, Joseph L. Dugan, Valerie C. Benjamin and Justin K. Bigham

## Investor Relations Contact

Shelly J. Doran - Director of Investor and External Relations  
[SJDoran@five-starbank.com](mailto:SJDoran@five-starbank.com)

## Legal Counsel

Harter Secrest & Emery LLP

## Independent Auditors

RSM US LLP  
Chicago, IL

## Affiliates

Five Star Bank  
SDN Insurance Agency, LLC  
Courier Capital, LLC  
HNP Capital, LLC

## Five Star Bank Regional Administrative Center

Five Star Bank Plaza  
100 Chestnut Street  
Rochester, NY 14604

## SDN Insurance Agency, LLC

300 Spindrift Drive  
Amherst, NY 14221

## Courier Capital, LLC

1114 Delaware Avenue  
Buffalo, NY 14209

## HNP Capital, LLC

Five Star Bank Plaza  
100 Chestnut Street  
Rochester, NY 14604



Financial  
Institutions, Inc.



**Financial  
Institutions, Inc.**

220 Liberty Street, Warsaw, NY 14569  
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