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

Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the Fiscal Year Ended December 31, 2018
Or
☐ Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the transition period from to
G : : : : : : : : : : : : : : : : : : :
Commission file number 0-10592

TRUSTCO BANK CORP NY

(Exact name of registrant as specified in its charter)

NEW YORK

14-1630287

(State or other jurisdiction of incorporation or organization)

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

5 SARNOWSKI DRIVE, GLENVILLE, NEW YORK 12302

(Address of principal executive offices) (Zip Code)

Registrant 's telephone number, including area code: (518) 377-3311

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

<u>Title of each class</u>

Common Stock, \$1.00 Par Value

the registrant 's fiscal year end.

Name of exchange on which registered)
The NASDAQ Global Select Market

	Securities registered p	ursuant to Section 12(g) of the Act: None	
Indicate by check mark if the regis Yes.⊠ No.□	trant is a well-known seasoned issuer	, as defined in Rule 405 of the Securities Ad	et.
Indicate by check mark if the regis Yes.□ No. ⊠	trant is not required to file reports pur	rsuant to Section 13 or Section 15(d) of the	Act.
			the Securities Exchange Act of 1934 during the been subject to such filing requirements for the
<u> </u>	•		be submitted and posted pursuant to Rule 405 of ant was required to submit and post such files).
-		n 405 of Regulation S-K (§ 229.405 of this information statements incorporated by refe	chapter) is not contained herein, and will not be rence in Part III of this Form 10-K. ⊠
-		iler, an accelerated filer, a non-accelerated ler reporting company " in Rule 12b-2 of th	filer, or a smaller reporting company. See the Exchange Act.
Large Accelerated Filer ⊠	Accelerated Filer □	Non-Accelerated Filer \square	Smaller reporting company \square
Indicate by check mark whether th Yes. □ No. ⊠	e registrant is a shell company (as def	fined in Rule 12b-2 of the Exchange Act).	
66 6	<u> -</u>	as of June 29, 2018, the last business day of ted on the NASDAQ Global Select Market	the Company's second fiscal quarter, was \$834).
The number of shares outstanding	of the registrant 's common stock as	of February 27, 2019 was 96,745,858.	

Documents Incorporated by Reference: Portions of registrant's Proxy Statement filed for its 2019 Annual Meeting of Shareholders to be filed within 120 days of

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[NOTE: Index not revised/ updated]

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USE OF NON-GAAP FINANCIAL MEASURES

The Securities and Exchange Commission ("SEC") has adopted certain rules with respect to the use of "non-GAAP financial measures" by companies with a class of securities registered under the Securities Exchange Act of 1934, such as TrustCo. GAAP is generally accepted accounting principles in the United States of America. Under the SEC rules, companies making disclosures containing non-GAAP financial measures must also disclose, along with each non-GAAP financial measure, certain additional information, including a reconciliation of the non-GAAP financial measure to the closest comparable GAAP financial measure and a statement of the company's reasons for utilizing the non-GAAP financial measure as part of its financial disclosures.

A discussion of certain non-GAAP financial measures, including taxable equivalent net interest income and net interest margin and efficiency ratio, used in this report and in the Annual Report to Shareholders included as Exhibit 13 to this Form 10-K, as well as a reconciliation of these measures to the closest comparable GAAP financial measures, is set forth in the Annual Report to Shareholders included as Exhibit 13 to this Form 10-K and is incorporated herein by reference.

PART I

Item 1. <u>Business</u>

General

TrustCo Bank Corp NY ("TrustCo" or the "Company") is a savings and loan holding company having its principal place of business at 5 Sarnowski Drive, Glenville, New York 12302. TrustCo was incorporated under the laws of New York in 1981 to be the parent holding company of The Schenectady Trust Company, which subsequently was renamed to Trustco Bank New York and, later, to Trustco Bank, National Association. The Company's principal subsidiary, Trustco Bank (also referred to as the "Bank"), is the successor by merger to Trustco Bank, National Association.

Through policy and practice, TrustCo continues to emphasize that it is an equal opportunity employer. There were 854 full-time equivalent employees of TrustCo at year-end 2018. TrustCo had 11,516 shareholders of record as of December 31, 2018 and the closing price of the TrustCo common stock on that date was \$6.86.

Subsidiaries

Trustco Bank

Trustco Bank is a federal savings bank engaged in providing general banking services to individuals, partnerships, and corporations. At year-end 2018, the Bank operated 161 automatic teller machines and 148 banking offices in Albany, Columbia, Dutchess, Greene, Montgomery, Orange, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Ulster, Warren, Washington and Westchester counties of New York, Brevard, Charlotte, Hillsborough, Indian River, Lake, Manatee, Martin, Orange, Osceola, Palm Beach, Polk, Sarasota, Seminole, and Volusia counties in Florida, Bennington County in Vermont, Berkshire County in Massachusetts and Bergen County in New Jersey. The largest part of such business consists of accepting deposits and making loans and investments. The Bank provides a wide range of both personal and business banking services. The Bank is supervised and regulated by the federal Office of the Comptroller of the Currency ("OCC") and is a member of the Federal Reserve System. Its deposits are insured by the Federal Deposit Insurance Corporation ("FDIC") to the extent permitted by law. The Bank's subsidiary, Trustco Realty Corp., is a real estate investment trust (or "REIT") that was formed to acquire, hold and manage real estate mortgage assets, including residential mortgage loans and mortgage backed securities. The income earned on these assets, net of expenses, is distributed in the form of dividends. Under current New York State tax law, 60% of the dividends received by the Bank from Trustco Realty Corp. are excluded from total taxable income for New York State income tax purposes. The Bank accounted for substantially all of TrustCo's 2018 consolidated net income and average assets. The Bank's other active subsidiaries, Trustco Insurance Agency, Inc. and ORE Property, Inc., did not engage in any significant business activities during 2018 and 2017.

Trustco Financial Services, the name under which Trustco Bank's trust department operates, serves as executor of estates and trustee of personal trusts, provides asset and wealth management services, provides estate planning and related advice, provides custodial services, and acts as trustee for various types of employee benefit plans and corporate pension and profit sharing trusts. The aggregate market value of the assets under trust, custody, or management of the trust department of the Bank was approximately \$802.6 million as of December 31, 2018.

The daily operations of the Bank remain the responsibility of its officers, subject to the oversight of its Board of Directors and overall supervision by TrustCo. The activities of the Bank are included in TrustCo's consolidated financial statements.

ORE Subsidiary Corp.

In 1993, TrustCo created ORE Subsidiary Corp., a New York corporation, to hold and manage certain foreclosed properties acquired by the Bank. The accounts of this subsidiary are included in TrustCo's consolidated financial statements.

Competition

TrustCo faces strong competition in its market areas, both in attracting deposits and making loans. The Company's most direct competition for deposits, historically, has come from commercial banks, savings associations, and credit unions that are located or have branches in the Bank's market areas. The competition ranges from other locally based commercial banks, savings banks and credit unions to branch offices of the largest financial institutions in the United States. In its principal market areas, the Capital District area of New York State and Central Florida, TrustCo's principal competitors are local branch operations of super-regional banks, branch offices of money center banks, and locally based commercial banks and savings institutions. The Bank is the largest depository institution headquartered in the Capital District area of New York State. The Company also faces competition for deposits from national brokerage houses, short-term money market funds, and other corporate and government securities mutual funds.

Factors affecting the acquisition of deposits include pricing, office locations and hours of operation, the variety of deposit accounts offered, and the quality of customer service provided. While loan demand has moderated over the last several years, competition for loans has remained strong. Commercial banks, savings institutions, traditional mortgage brokers affiliated with local offices and nationally franchised real estate brokers are all active and aggressive competitors. The Company competes in this environment by providing a full range of financial services based on a tradition of financial strength and integrity dating from its inception. The Company competes for loans principally through the interest rates and loan fees it charges and the efficiency and quality of services it provides to borrowers.

Supervision and Regulation

Banking is a highly regulated industry, with numerous federal and state laws and regulations governing the organization and operation of banks and their affiliates. As a savings and loan holding company, TrustCo and its non-bank subsidiaries are supervised and regulated by the Board of Governors of the Federal Reserve System ("Federal Reserve Board"). The OCC is the Bank's primary federal regulator that supervises and examines the Bank. Under the Home Owners' Loan Act of 1934 and OCC regulations, TrustCo Bank must obtain prior OCC approval for acquisitions, and its business operations and activities are restricted. Because the FDIC provides deposit insurance to the Bank, the Bank is also subject to its supervision and regulation even though the FDIC is not the Bank's primary federal regulator.

The following summary of laws and regulations applicable to the Company or the Bank is not intended to be a complete description of those laws and regulations or their effects on the Company and the Bank, and it is qualified in its entirety by reference to the particular statutory and regulatory provisions described.

Dodd-Frank Wall Street Reform and Consumer Protection Act and Economic Growth, Regulatory Relief and Consumer Protection Act

The Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") was enacted in July 2010 and created dramatic changes across the financial regulatory system. Implementation of the Dodd-Frank Act required many new rules to be made by various federal regulatory agencies, including TrustCo's and the Bank's regulatory agencies. The Dodd-Frank Act included provisions that, among other effects, created a new agency, statutorily known as the Bureau of Consumer Financial Protection (the "B CFP"), to centralize responsibility for consumer financial protection and be responsible for implementing, examining and enforcing compliance with major federal consumer financial laws, imposed new consumer protection requirements in mortgage loan transactions and increased the maximum amount of deposit insurance for banks, savings institutions and credit unions to \$250,000 per depositor.

In May 2018, the Economic Growth, Regulatory Relief and Consumer Protection Act (the "Regulatory Relief Act"), was enacted to modify or remove certain financial reform rules and regulations, including some of those implemented under the Dodd-Frank Act. While the Regulatory Relief Act maintains most of the regulatory structure established by the Dodd-Frank Act, it amends certain aspects of the regulatory framework for small depository institutions with assets of less than \$10 billion and for large banks with assets of more than \$50 billion. Many of these changes could result in meaningful regulatory changes for community banks such as the Bank, and their holding companies.

The Regulatory Relief Act, among other matters, expands the definition of qualified mortgages which may be held by a financial institution and simplifies the regulatory capital rules for financial institutions and their holding companies with total consolidated assets of less than \$10 billion by instructing the federal banking regulators to establish a single "Community Bank Leverage Ratio" of between 8 and 10 percent. Any qualifying depository institution or its holding company that exceeds the "community bank leverage ratio" will be considered to have met generally applicable leverage and risk-based regulatory capital requirements and any qualifying depository institution that exceeds the new ratio will be considered to be "well capitalized" under the prompt corrective action rules. In addition, the Regulatory Relief Act includes regulatory relief for community banks regarding regulatory examination cycles, call reports, the Volcker Rule (proprietary trading prohibitions), mortgage disclosures and risk weights for certain high-risk commercial real estate loans.

It is difficult at this time to predict when or how any new standards under the Dodd-Frank Act or the Regulatory Relief Act will ultimately be applied to the Bank or the Company or what specific impact the Regulatory Relief Act and the yet-to-be-written implementing rules and regulations will have on the Bank.

Dividends

Most of TrustCo 's revenues consist of cash dividends paid to TrustCo by the Bank, payment of which is subject to various regulatory limitations. The payment of dividends by the Bank to TrustCo is subject to continued compliance with minimum regulatory capital requirements, and the receipt of regulatory approval (or non-objection) from the Bank 's and the Company's regulators.

OCC regulations impose limitations upon all capital distributions by the Bank, including cash dividends, payments to repurchase bank stock, and payments to stockholders of another institution in a cash-out merger. Under the regulations, an application to and the approval of the OCC is required prior to any capital distribution if the institution does not meet the criteria for "expedited treatment" of applications under OCC regulations (generally, examination ratings in the two top categories), the total capital distributions for the calendar year exceed net income for that year plus the amount of retained net income for the preceding two years, the institution would be undercapitalized following the distribution or the distribution would otherwise be contrary to a statute, regulation or agreement with the OCC. If an application is not required, the institution must still provide prior notice to the OCC and the Federal Reserve Board of the capital distribution if, like the Bank, it is a subsidiary of a savings and loan holding company. The OCC may disapprove a dividend if the institution would be undercapitalized following the distribution, the proposed capital distribution raises safety and soundness concerns, or the capital distribution would violate a prohibition contained in any statue, regulation or agreement between the bank and a regulator or a condition imposed in a previously approved application or notice.

As noted above, a savings institution, such as the Bank, that is a subsidiary of a savings and loan holding company and that proposes to make a capital distribution must also submit written notice to the Federal Reserve Board prior to such distribution, and Federal Reserve Board may object to the distribution based on safety and soundness or other concerns. The Federal Reserve Board may deny a dividend notice if following the dividend, the savings association will be less than adequately capitalized, the proposed dividend raises safety and soundness concerns or the proposed dividend violates a prohibition contained in any statute, regulation, enforcement action or agreement between the thrift or holding company and an appropriate federal banking agency, a condition imposed on the savings association or holding company in an application or notice approved by an appropriate federal banking agency or any formal or informal enforcement action involving the savings association or holding company.

Compliance with regulatory standards regarding capital distributions could also limit the amount of dividends that TrustCo may pay to its shareholders.

See Note 14 to the consolidated financial statements contained in TrustCo's Annual Report to Shareholders for the year ended December 31, 2018 for information concerning the Bank's regulatory capital requirements.

Regulatory Capital Requirements and Prompt Corrective Action.

Regulatory Capital Rules. The Company and the Bank are subject to regulatory capital requirements contained in rules published by the Federal Reserve Board, FDIC and OCC. The rules establish a comprehensive capital framework for all U.S. banking organizations designed to implement the "Basel III" regulatory capital reforms and changes required by the Dodd-Frank Act. The rules were effective for the Company and the Bank on January 1, 2015, with full compliance with all of the final rule's requirements being phased in over a multi-year schedule. Calendar year 2018 was the final year of implementation of the capital rules and the capital rules are fully phased in effective January 1, 2019. Prior to January 2015, the Company was not subject to consolidated regulatory capital requirements.

The capital rules, among other things, provide a "Common Equity Tier 1" ("CET1") capital measure. CET1 capital is generally defined as common stock instruments that meet the eligibility criteria in the final capital rule (generally, instruments representing the most subordinated claim upon liquidation, having no maturity date and being redeemable via discretionary purchases only with regulatory approval, not being subject to any expectations that the stock will be repurchased, redeemed or cancelled and not being secured by the banking organization or any related entity), retained earnings, accumulated other comprehensive income and common equity Tier 1 minority interests, subject to certain limitations. Tier 1 capital for the Company and the Bank consists of CET1 capital plus "additional Tier 1 capital," which generally includes certain noncumulative perpetual preferred stock and related surplus and minority interests in equity accounts of consolidated subsidiaries. Also under the capital rules, total capital includes Tier 1 capital and Tier 2 capital. Tier 2 capital is comprised of capital instruments and related surplus meeting specified requirements, and may include cumulative preferred stock and long-term perpetual preferred stock, mandatory convertible securities, intermediate preferred stock and subordinated debt. Also included in Tier 2 capital is the allowance for loan and lease losses limited to a maximum of 1.25% of risk-weighted assets and, for institutions that have exercised an opt-out election regarding the treatment of accumulated other comprehensive income ("AOCI"), up to 45% of net unrealized gains on available-for-sale equity securities with readily determinable fair market values. Institutions that have not exercised the AOCI opt-out have AOCI incorporated into common equity Tier 1 capital (including unrealized gains and losses on available-for-sale-securities). The Company has made this opt-out election. Calculation of all types of regulatory capital is subject to deductions and adjustments

The capital rules also increased the Tier 1 capital ratio requirement, changed the total assets utilized in the Tier 1 leverage ratio calculation from total assets at quarter end to average total assets during the quarter, changed the risk-weightings of certain assets for purposes of risk-based capital ratios, created an additional "capital conservation buffer" over the required capital ratios, and changed what qualifies as capital for purposes of meeting the various capital requirements.

Under the capital rules, the minimum capital ratios are:

· 4.5% CET1 to risk-weighted assets;

- 6.0% Tier 1 capital to risk-weighted assets;
- · 8.0% Total capital to risk-weighted assets; and
- 4.0% Tier 1 capital to average consolidated assets as reported on consolidated financial statements (the "leverage ratio").

At December 31, 2018, the Bank had a Tier 1 leverage ratio (Tier 1 capital to total average consolidated assets) of 9.77%, CET1 capital ratio (CET1 capital to risk-weighted assets) of a 18.23% Tier 1 capital ratio (Tier 1 capital to risk-weighted assets) of 18.23%, and a total capital ratio (total capital to risk-weighted assets) of 19.49%. Also at December 31, 2018, the Company had a Tier 1 leverage ratio (Tier 1 capital to total average consolidated assets) of 10.13% CET1 capital ratio (CET1 capital to risk-weighted assets) of 18.79% a Tier 1 capital ratio (Tier 1 capital to risk-weighted assets) of 20.04%.

As noted above, the capital rules require the Company's and the Bank's capital to exceed the regulatory standards plus a capital conservation buffer in order to avoid constraints on dividends, equity repurchases and certain compensation. To meet the requirement when it is fully phased in, the organization must maintain an amount of CET1 capital that exceeds the buffer level of 2.5% above each of the minimum risk-weighted asset ratios. To avoid capital conservation buffer constraints, a banking organization must maintain the following capital ratios: (1) CET1 to risk-weighted assets of more than 7.0%, (ii) Tier 1 capital to risk-weighted assets of more than 8.5%, and (iii) total capital (Tier 1 plus Tier 2) to risk-weighted assets of more than 10.5%.

The OCC has the ability to establish an individual minimum capital requirement for a particular institution, which varies from the capital levels that would otherwise be required under the capital regulations, based on such factors as concentrations of credit risk, levels of interest rate risk, and the risks of non-traditional activities as well as others. The OCC has not imposed any such requirement on the Bank.

The new capital rules modify the calculation of risk-weighted assets, although they generally continue the treatment of residential mortgages under the prior rules. Under the rules, a bank may assign a 50% risk weight to a first-lien residential mortgage exposure that:

- Is secured by property that is owner-occupied or rented,
- Is made in accordance with "prudent underwriting standards," including loan-to-value ratios,
- Is not 90 days or more past due or in nonaccrual status, and
- Is not restructured or modified.

Other first-lien residential exposures, as well as junior-lien exposures if the bank does not hold the first lien, are assigned a 100% risk weight.

The exposure amount for on-balance sheet assets is generally the carrying value of the exposure as determined under GAAP. If a banking organization has elected to opt out of the accumulated other comprehensive income provisions discussed above, the exposure amount for available for sale or held-to-maturity debt securities is the carrying value (including accrued but unpaid interest and fees) of the exposure, less any net unrealized gains plus any unrealized losses. Further, the new rules retain the prior risk-weighting rules for exposures to debt directly and unconditionally guaranteed by the U.S. federal government and its agencies. Such exposures receive a 0% risk weight. Exposures conditionally guaranteed by the federal government, Federal Reserve Board or a federal government agency would receive a 20% risk weight. Further, the capital rules assign a 20% risk weight to non-equity exposures to government-sponsored entities ("GSEs") and a 100% risk weight to preferred stock issued by a GSE. The new rules define a GSE as an entity established or chartered by the federal government to serve public purposes but whose debt obligations are not "explicitly guaranteed" by the full faith and credit of the federal government. Banking organizations must assign a 20% risk weight to general obligations of a public sector entity (for example, a state, local authority or other governmental subdivision below the sovereign level) that is organized under U.S. law and a 50% risk weight for a revenue obligation of such an entity.

Prompt Corrective Action. Federal banking regulations also establish a "prompt corrective action" capital framework for the classification of insured depository institutions, such as Trustco Bank, into five categories: well capitalized, adequately capitalized, undercapitalized, significantly undercapitalized, and critically undercapitalized institution or its holding agencies are required to take certain supervisory actions (and may take additional discretionary actions) with respect to an undercapitalized institution or its holding company. Such actions could have a direct material effect on an institution 's or its holding company 's financial condition and activities. Under the prompt corrective action rules currently in effect, an institution is deemed to be (a) "well-capitalized" if it has total risk-based capital ratio of 8.0% or more, has a Tier 1 risk-based capital ratio of 8.0% or more, has a CET1 risk based capital ratio of 6.5% or more, and has leverage capital ratio of 5.0% or more, and is not subject to any order or final capital directive to meet and maintain a specific capital level for any capital measure; (b) "adequately capitalized" if it has a total risk-based capital ratio of 8.0% or more, a Tier 1 risk-based capital ratio of 6.0% or more, a CET1 risk based capital ratio of 4.5% or more and has a leverage capital ratio of 4.0% or more (3.0% under certain circumstances) and does not meet the definition of well-capitalized; (c) "undercapitalized" if it has a total risk-based capital ratio that is less than 4.0%, a CET1 capital ratio that is less than 6.0%, a CET1 capital ratio that is less than 6.0%, a CET1 capital ratio that is less than 3.0%; and (e) "critically undercapitalized" if it has a ratio of tangible equity to total assets that is equal to or less than 2.0%. In certain situations, a federal banking agency may reclassify a well-capitalized institution were in the next lower category.

A depository institution is generally prohibited from making any capital distributions (including payment of a dividend) or paying any management fee to its parent holding company if the depository institution would thereafter be undercapitalized. Undercapitalized institutions also are subject to growth limitations and are required to submit a capital restoration plan to the regulatory agencies. The agencies may not accept such a plan without determining, among other things, that the plan is based on realistic assumptions and is likely to succeed in restoring the depository institution 's capital. In addition, for a capital restoration plan to be acceptable, the depository institution 's parent holding company must guarantee that the institution will comply with such capital restoration plan. The aggregate liability of the parent holding company is limited to the lesser of (i) an amount equal to 5.0% of the depository institution 's total assets at the time it became undercapitalized and (ii) the amount which is necessary (or would have been necessary) to bring the institution into compliance with all capital standards applicable with respect to such institution as of the time it fails to comply with the plan. If a depository institution fails to submit an acceptable plan, it is treated as if it is "significantly undercapitalized."

"Significantly undercapitalized" depository institutions may be subject to a number of requirements and restrictions, including orders to sell sufficient voting stock to become "adequately capitalized," requirements to reduce total assets, and cessation of receipt of deposits from correspondent banks. "Critically undercapitalized" institutions are subject to the appointment of a receiver or conservator.

At December 31, 2018 and 2017, each of TrustCo and Trustco Bank met all capital adequacy requirements to which it was subject under the OCC and FRB regulations.

Holding Company Activities

The activities of savings and loan holding companies are governed, and limited, by the Home Owners' Loan Act and the Federal Reserve Board's regulations. In general, TrustCo's activities are limited to those permissible for "multiple" savings and loan holding companies (that is, savings and loan holding companies owning more than one savings association subsidiary) as of March 5, 1987, activities permitted for bank holding companies as of November 12, 1999, and activities permissible for "financial holding companies" (which are described below). Activities permitted to multiple savings and loan holding companies include certain real estate investment activities, and other activities permitted to bank holding companies under the Bank Holding Company Act. Activities permissible for a financial holding company are those considered financial in nature (including securities and insurance activities) or those incidental or complementary to financial activities.

A savings and loan holding company is prohibited from, directly or indirectly, acquiring more than 5% of the voting stock of another financial institution or savings and loan holding company without the prior written approval of the Federal Reserve Board. In evaluating applications by holding companies to acquire savings institutions, the Federal Reserve Board considers the financial and managerial resources and future prospects of the company and institution involved, the effect of the acquisition on the risk to the deposit insurance fund, the convenience and needs of the community and competitive factors.

The Federal Reserve may not approve any acquisition that would result in a multiple savings and loan holding company controlling savings institutions in more than one state, subject to two exceptions: (i) the approval of interstate supervisory acquisitions by savings and loan holding companies and (ii) the acquisition of a savings institution in another state if the laws of the state of the target savings institution specifically permit such acquisitions. The states vary in the extent to which they permit interstate savings and loan holding company acquisitions.

Beginning in 2015, TrustCo became subject to formal regulatory capital requirements and is now obligated to hold capital in the same amount and type that is required for insured depository institutions such as the Bank. Please refer to the discussion above under "Regulatory Capital Requirements and Prompt Corrective Action -- New Regulatory Capital Rules."

In addition, the financial impact of a holding company on its subsidiary institution is a matter that is evaluated by the Federal Reserve Board, and the agency has authority to order cessation of activities or divestiture of subsidiaries deemed to pose a threat to the safety and soundness of the institution. The Dodd-Frank Act, moreover, codifies the Federal Reserve's long-standing "source of strength" doctrine and thus requires that bank or thrift holding companies serve as a source of financial strength for their depository institution subsidiaries. The phrase "source of financial strength" is defined in the Dodd-Frank Act as "the ability of a company that directly or indirectly owns or controls an insured depository institution to provide financial assistance to such insured depository institution in the event of the financial distress of the insured depository institution." The federal banking agencies are authorized to adopt regulations with respect to this requirement, although they have not yet done so.

Securities Regulation and Corporate Governance

The Company's common stock is registered with the SEC under Section 12(b) of the Securities Exchange Act of 1934, and the Company is subject to restrictions, reporting requirements and review procedures under federal securities laws and regulations. The Company is also subject to the rules and reporting requirements of The NASDAQ Stock Market LLC, on which its common stock is traded.

Like other issuers of publicly traded securities, the Company must also comply with provisions of the Dodd-Frank Act that require publicly traded companies to give stockholders a non-binding vote on executive compensation, and the Company will also be subject to the Dodd-Frank Act provisions that authorize the SEC to promulgate rules that would allow stockholders to nominate their own candidates using a company's proxy materials.

The Sarbanes-Oxley Act of 2002 ("Sarbanes-Oxley") implemented legislative reforms intended to address corporate and accounting fraud and contained reforms of various business practices and numerous aspects of corporate governance. For example, Sarbanes-Oxley addresses accounting oversight and corporate governance matters, including the creation of a five-member oversight board appointed by the Securities and Exchange Commission to set and enforce auditing, quality control and independence standards for accountants and have investigative and disciplinary powers; increased responsibilities and codified requirements relating to audit committees of public companies and how they interact with a company's public accounting firm; the prohibition of accounting firms from providing various types of consulting services to public clients and requiring accounting firms to rotate partners among public client assignments every five years; expanded disclosure of corporate operations and internal controls and certification by chief executive officers and chief financial officers to the accuracy of periodic reports filed with the SEC; and prohibitions on public company insiders from trading during retirement plan "blackout" periods, restrictions on loans to company executives and enhanced controls on and reporting of insider trading.

Although the Company has and will continue to incur additional expense in complying with the corporate governance provisions of the Dodd-Frank Act and Sarbanes-Oxley and the resulting regulations, management does not expect that such compliance will have a material impact on the Company's financial condition or results of operations.

Federal Savings Institution Regulation

Business Activities. Federal law and regulations govern the activities of federal savings banks such as the Bank. These laws and regulations delineate the nature and extent of the activities in which federal savings banks may engage. In particular, certain lending authority for federal savings banks, e.g., commercial, non-residential real property loans and consumer loans, is limited to a specified percentage of the institution's capital or assets.

Insurance of Deposit Accounts. Deposits of Trustco Bank are insured by the Deposit Insurance Fund ("DIF") of the FDIC, and the Bank is subject to deposit insurance assessments to maintain the DIF. The FDIC determines insurance premiums based on a number of factors, primarily the risk of loss that insured institutions pose to the DIF. Deposit insurance assessments are based on average consolidated total assets minus average tangible equity. Under the FDIC's risk-based assessment system, as revised effective July 1, 2016, insured institutions with less than \$10 billion in assets, such as the Bank, are assigned to one of three categories based on their composite examination ratings, with higher-rated, less risky institutions paying lower assessments. A range of initial base assessment rates applies to each category, adjusted downward based on unsecured debt issued by the institution to produce total base assessment rates. Total base assessment rates currently range from 1.5 to 16 basis points banks in the least risky category to 11 to 30 basis points for banks in the most risky category, all subject to further adjustment upward if the institution holds more than a limited amount of unsecured debt issued by another FDIC-insured institution.

The FDIC has the authority to raise or lower assessment rates, subject to limits, and to impose special additional assessments. The Dodd-Frank Act eliminated the previous statutory maximum limit on the FDIC's reserve ratio (which is generally the ratio of the DIF balance to the estimated amount of deposits insured by the DIF) and set the minimum reserve ratio to not less than 1.35% of estimated insured deposits or the comparable percentage of the FDIC's assessment base. The act also required the FDIC to take the steps necessary to attain the 1.35 percent ratio by September 30, 2020, subject to an offsetting requirement for certain institutions. As of September 30, 2018 the reserve rate was 1.36%, exceeding the minimum statutory requirement.

FDIC deposit insurance expense totaled \$ 1.5 million, \$2.9 million, and \$4.7 million, in 2018, 2017, and 2016, respectively. FDIC deposit insurance expense includes deposit insurance assessments and Financing Corporation ("FICO") assessments related to outstanding bonds issued by FICO in the late 1980s to recapitalize the now defunct Federal Savings & Loan Insurance Corporation. The Federal Housing Finance Agency, the federal agency with authority to issue regulation relative to FICO, projects that the final FICO assessment will be collected in 2019.

Future changes in insurance premiums could have an adverse effect on the operating expenses and results of operations of Trustco Bank, and the Bank cannot predict what insurance assessment rates will be in the future.

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

Assessments. The Bank is required to pay assessments to the OCC to fund the agency 's operations. The general assessments, paid on a semi-annual basis, is computed upon the Bank 's total assets, including consolidated subsidiaries, as reported in the Bank 's latest quarterly financial report. The OCC 's assessment schedule includes a surcharge for institutions that require increased supervisory resources. The assessments paid by the Bank for the year ended December 31, 2018 totaled approximately \$1.1 million.

Community Reinvestment Act. The Community Reinvestment Act ("CRA") requires each savings institution, as well as commercial banks and certain other lenders, to identify the communities served by the institution's offices and to identify the types of credit the institution is prepared to extend within those communities. The CRA also requires the OCC to assess an institution's performance in meeting the credit needs of its identified communities as part of its examination of the institution, and to take such assessments into consideration in reviewing applications with respect to branches, mergers and other business combinations, including acquisitions by savings and loan holding companies. An unsatisfactory CRA rating may be the basis for denying such an application and community groups have successfully protested applications on CRA grounds. In connection with its assessment of CRA performance, the OCC assigns CRA ratings of "outstanding," "satisfactory," "needs to improve" or "substantial noncompliance." The Bank was rated "satisfactory" in its last CRA examination. Institutions are evaluated based on (i) its record of helping to meet the credit needs of its assessment area through lending activities; (ii) its qualified investments; and (iii) the availability and effectiveness of the institution 's system for delivering retail banking services. An institution that is found to be deficient in its performance in meeting its community 's credit needs may be subject to enforcement actions, including cease and desist orders and civil money penalties.

Qualified Thrift Lender Test. As a savings institution regulated by the OCC, the Bank must be a "qualified thrift lender" under either the Qualified Thrift Lender ("QTL") test under the Home Owners' Loan Act or the Internal Revenue Code's Domestic Building and Loan Association ("DBLA") test to avoid certain restrictions on its and the Company's operations and activities. A savings institution may use either test to qualify and may switch from one test to the other; however, the institution must meet the time requirements of the respective test, that is, nine out of the preceding 12 months for the QTL test and at the close of the taxable year for the DBLA test.

Under the QTL test, the savings institution must hold qualified thrift investments equal to at least 65% of the institution 's portfolio assets. The savings institution 's actual thrift investment percentage is the ratio of its qualified thrift investments divided by its portfolio assets. Portfolio assets are total assets minus goodwill and other intangible assets, office property, and liquid assets not exceeding 20% of total assets. An institution ceases to meet the QTL test when its actual thrift investment percentage falls below 65% of portfolio assets for four months within any 12-month period. To be a qualified thrift lender under the DBLA test, a savings association must meet a "business operations test" and a "60% of assets test." The business operations test requires the business of a DBLA to consist primarily of acquiring the savings of the public and investing in loans. An institution meets the public savings requirement when it meets one of two conditions: (i) the institution acquires its savings accounts in conformity with OCC rules and regulations and (ii) the general public holds more than 75% of its deposits, withdrawable shares, and other obligations. An institution meets the investing in loans requirement when more than 75% of its gross income consists of interest on loans and government obligations, and various other specified types of operating income that financial institutions ordinarily earn. The 60% of assets test requires that at least 60% of a DBLA 's assets must consist of assets that thrifts normally hold, except for consumer loans that are not educational loans.

These are significant consequences for failing the QTL Test, including activities limitations and branching restrictions. In addition, an institution that fails the QTL test would be prohibited from paying dividends, except under circumstances that are permissible for a national bank, that are necessary to meet the obligations of the institution's holding company, and that are specifically approved by both the OCC and Federal Reserve Bank after a written request submitted by the thrift at least 30 days in advance of the proposed payment. Finally, failure of the QTL Test will subject the institution to enforcement action. If the Bank fails the qualified thrift lender test, within one year of such failure the Company must register as, and will become subject to, the activities restrictions applicable to bank holding companies, unless the Bank requalifies within the year. The activities authorized for a bank holding company are generally more limited than are the activities authorized for a savings and loan holding company. If the Bank fails the test a second time, the Company must immediately register as, and become subject to, the restrictions applicable to a bank holding company. The Bank is currently, and expects to remain, in compliance with the qualified thrift lender test.

Transactions with Related Parties. The Bank 's transactions with "affiliates" (generally, any company that controls or is under common control with the Bank, including TrustCo) is limited by Sections 23A and 23B of the Federal Reserve Act and the Federal Reserve 's implementing Regulation W. Under these laws, the aggregate amount of "covered transactions" between the Bank and any one affiliate is limited to 10% of the Bank 's capital stock and surplus, and the aggregate amount of covered transactions by the Bank with all of its affiliates is limited to 20% of capital stock and surplus. Certain covered transactions (primarily credit-related transactions) are required to be secured by collateral in an amount and of a type described in Section 23A and Regulation W. transactions by the Bank with its affiliates must be on terms and under circumstances that are at least as favorable to the Bank as those prevailing at the time for comparable transactions with non-affiliates. In addition, savings institutions are prohibited from lending to any affiliate that is engaged in activities that are not permissible for bank holding companies, and no savings institution may purchase the securities of any affiliate other than a subsidiary.

The definition of "covered transactions" as used in Section 23A includes credit exposure on derivatives transactions and securities lending and borrowing transactions, as well as the acceptance of affiliate-issued debt obligations as collateral for a loan or an extension of credit. The Dodd-Frank Act revised Section 23A to require that collateral must be maintained at all times for covered transactions, rather than only at the time of the transaction, and restricted the use of debt obligations issued by an affiliate to satisfy collateral obligations. Finally, the Dodd-Frank Act also authorizes the OCC (with respect to federal savings associations such as the Bank), in conjunction with the Federal Reserve, to grant exemptions under Section 23A, subject to the FDIC's determination (or non-objection within a 60-day notice period) that the exemption does not present an unacceptable risk to the DIF.

The Bank also is restricted in its ability to extend credit to its directors, executive officers and 10% shareholders, as well as to entities controlled by such persons. Extensions of credit to those insiders must be made on terms that are substantially the same as, and follow credit underwriting procedures that are not less stringent than, those prevailing for comparable transactions with unaffiliated persons; may not involve more than the normal risk of repayment or present other unfavorable features and may not exceed certain limitations on the amount of credit extended to such persons, individually and in the aggregate. In addition, extensions of credit in excess of certain limits must be approved by the Bank 's Board of Directors.

Certain non-credit transactions between an insured depository institution and its insiders, such as asset purchase and sales, are prohibited unless the transaction is on market terms and, if the transaction represents more than 10% of the capital stock and surplus of the institution, has been approved in advance by a majority of the disinterested members of the board of directors of the institution. The Dodd-Frank Act also imposed new limits on loans to insiders with respect to derivatives transactions, repurchase and reverse-repurchase agreements and securities lending and borrowing transactions.

Safety and Soundness Regulations. The federal banking agencies (including the OCC) have adopted certain safety and soundness standards for all insured depository institutions. These standards relate to, among other things, internal controls, information systems and internal audit systems; loan documentation; credit underwriting; interest rate risk exposure; asset growth; asset quality; earnings and compensation, fees and benefits, as well as other operational and managerial standards as the agency deems appropriate. Interagency Guidelines Establishing Standards for Safety and Soundness set forth the safety and soundness standards that the federal banking agencies use to identify and address problems at insured depository institutions before capital becomes impaired. If the appropriate federal banking agency (the OCC in the case of the Bank) determines that an institution fails to meet any standard prescribed by the guidelines, the agency may require the institution to submit to the agency an acceptable plan to achieve compliance with the standard.

Enforcement. The Federal Reserve and the OCC have extensive enforcement authority over savings institutions and their holding companies, including the Bank and TrustCo. This includes enforcement authority with respect to the actions of the Bank's and TrustCo's directors, officers and other "institution-affiliated parties," including attorneys and auditors. This enforcement authority also includes, among other things, the ability to assess civil money penalties, issue cease-and-desist or removal orders and initiate injunctive actions. In general, these enforcement actions may be initiated for violations of laws and regulations and unsafe or unsound practices. Public disclosure of final enforcement actions by the OCC and the Federal Reserve is required.

Institutions in Troubled Condition. Certain events, including entering into a formal written agreement with a bank 's regulator or being informed by the regulator that the bank is in troubled condition, will require that a bank give prior notice to their primary regulator before adding or replacing any member of the board of directors, employing any person as a senior executive officer, or changing the responsibilities of any senior executive officer so that the person would assume a different senior executive position. Troubled condition banks are prohibited from making, or agreeing to make, certain "golden parachute payments" to institution affiliated parties, subject to certain exceptions.

Consumer Laws and Regulations. In addition to the other laws and regulations discussed above, the Bank is subject to consumer laws and regulations designed to protect consumers in transactions with financial institutions. These laws and regulations include, among others, 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 Fair Credit Reporting Act and the Real Estate Settlement Procedures Act. These laws and regulations mandate certain disclosure requirements and regulate the manner in which financial institutions must deal with customers when taking deposits from, making loans to, or engaging in other types of transactions with, such customers.

The BCFP has adopted rules related to mortgage loan origination and mortgage loan servicing. In particular, the BCFP has issued a rule implementing the ability-to-repay and qualified mortgage ("QM") provisions of the Truth in Lending Act, as amended by the Dodd-Frank Act (the "QM Rule"). The ability-to-repay provision requires creditors to make reasonable, good faith determinations that borrowers are able to repay their mortgages before extending the credit based on a number of factors and consideration of financial information about the borrower from reasonably reliable third-party documents. Under the Dodd-Frank Act and the QM Rule, loans meeting the definition of "qualified mortgage" are entitled to a presumption that the lender satisfied the ability-to-repay requirements. The presumption is a conclusive presumption/safe harbor for prime loans meeting the QM requirements, and a rebuttable presumption for higher-priced/subprime loans meeting the QM requirements. The definition of a "qualified mortgage" incorporates the statutory requirements, such as not allowing negative amortization or terms longer than 30 years. The QM Rule also adds an explicit maximum 43% debt-to-income ratio for borrowers if the loan is to meet the QM definition, though some mortgages that meet GSE, FHA and VA underwriting guidelines may, for a period not to exceed seven years, meet the QM definition without being subject to the 43% debt-to-income limits. The QM Rule became effective in January 2014.

Anti-Money Laundering and Customer Identification. The Bank is subject to extensive anti-money laundering provisions and requirements, which generally require that it implement a comprehensive customer identification program and an anti-money laundering program and procedures. All financial institutions, including the Company and the Bank, are required to take certain measures to identify their customers, prevent money laundering, monitor certain customer transactions and report suspicious activity to U.S. law enforcement agencies, and scrutinize or prohibit altogether certain transactions of special concern. Financial institutions are also required to respond to requests for information from federal banking regulatory agencies and law enforcement agencies concerning their customers and their transactions. Information-sharing among financial institutions concerning terrorist or money laundering activities is encouraged by an exemption provided from the privacy provisions of the GLB Act (described below) and other laws. Further, the effectiveness of a financial institution in combating money-laundering activities is a factor to be considered in applications submitted by a financial institution for merger or acquisition proposals. The Company has in place a Bank Secrecy Act compliance program, and it engages in very few transactions of any kind with foreign financial institutions or foreign persons.

Consumer Privacy. The Gramm-Leach-Bliley Act of 1999 (the "GLB Act") generally provided for sweeping financial modernization for commercial banks, savings banks, securities firms, insurance companies, and other financial institutions operating in the United States. Among other matters, the GLB Act established a federal rule regarding the confidential treatment of nonpublic personal information about consumers. These provisions of the GLB Act require disclosure of privacy policies to consumers and, in some circumstances, allow consumers to prevent disclosure of certain personal information to a nonaffiliated third party. The privacy rules affect how consumer information is transmitted through diversified financial companies and conveyed to outside vendors. Because the Company does not sell customer information or give customer information to outside third parties or its affiliates except under limited circumstances (e.g., providing customer information to the Company's data processing provider), the rules have not had a significant impact on the Company's results of operations or financial condition.

Federal Reserve System

Federal Reserve Board regulations require savings institutions to maintain reserves against their transaction accounts. The reserve for transaction accounts effective as of January 17, 2019 was as follows:

Amount of transaction accounts	Reserve Requirement
\$0 to \$16.3 million	0% of amount.
Over \$16.3 million and up to \$124.2 million	3% of amount.
Over \$124.2 million	10% of amount over \$124.2 million

The Bank is in compliance with these requirements.

<u>Federal Home Loan Bank of New York.</u> The Bank is a member of Federal Home Loan Bank ("FHLB") of New York, which is one of 11 regional FHLBs that serve as reserve or central banks for their members. The FHLBs are funded primarily from proceeds derived from the sale of consolidated obligations of the FHLB system and makes loans or advances to members. The Bank is also required to purchase and maintain stock in the FHLB of New York at or above levels specified in the FHLB of New York capital plan. As of December 31, 2018, the Bank owned \$4.9 million in FHLB of New York stock, which was in compliance with its obligations.

Foreign Operations

Neither TrustCo nor the Bank engage in any operations in foreign countries or have outstanding loans to foreign debtors.

Statistical Information Analysis

The "Management's Discussion and Analysis of Financial Condition and Results of Operations" are included in TrustCo's Annual Report to Shareholders for the year ended December 31, 2018, which contains a presentation and discussion of statistical data relating to TrustCo, is hereby incorporated by reference. This information should not be construed to imply any conclusion on the part of the management of TrustCo that the results, causes, or trends indicated therein will continue in the future. The nature and effects of governmental monetary policy, supervision and regulation, future legislation, inflation and other economic conditions and many other factors which affect interest rates, investments, loans, deposits, and other aspects of TrustCo's operations are extremely complex and could make historical operations, earnings, assets, and liabilities not indicative of what may occur in the future.

Critical Accounting Policies

Pursuant to recent SEC guidance, management of the Company is encouraged to evaluate and disclose those accounting policies that are judged to be critical policies, or those most important to the portrayal of the Company's financial condition and results of operations, and that require management's most difficult subjective or complex judgments. Management considers the accounting policy relating to the allowance for loan losses to be a critical accounting policy given the inherent subjectivity and uncertainty in estimating the levels of the allowance required to cover credit losses in the portfolio and the material effect that such judgments can have on the results of operations. Included in Note 1 to the Consolidated Financial Statements contained in TrustCo's Annual Report to Shareholders for the year ended December 31, 2018, is a description of this critical policy and the other significant accounting policies that are utilized by the Company in the preparation of the Consolidated Financial Statements.

Availability of Reports

TrustCo 's annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports can be obtained free of charge from its Internet site, www.trustcobank.com under the "Investor Relations" tab. These reports are available on the Internet site as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. The information found on the Company's website is not incorporated by reference in this or any other report the Company files or furnishes to the SEC. These reports are also available on the SEC 's website at http://www.sec.gov.

Forward-Looking Statements

Statements included in this report and in future filings by TrustCo with the SEC, in TrustCo's press releases, and in oral statements made with the approval of an authorized executive officer, which are not historical or current facts, are "forward-looking statements" made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, and are subject to certain risks and uncertainties that could cause actual results to differ materially from historical earnings and those presently anticipated or projected. Forward-looking statements can be identified by the use of such words as may, will, should, could, would, estimate, project, believe, intend, anticipate, plan, seek, expect and similar expressions. TrustCo wishes to caution readers not to place undue reliance on any such forward-looking statements, which speak only as of the date made.

TrustCo 's 2018 Annual Report to Shareholders, which is included as Exhibit 13 hereto, contains a list of certain important factors, in addition to the factors described under Item 1A. Risk Factors, that in some cases have affected and in the future could affect TrustCo's actual results, and could cause TrustCo's actual financial performance to differ materially from that expressed in any forward-looking statement. The list should not be construed as exhaustive, and TrustCo disclaims any obligation to subsequently revise any forward-looking statements to reflect events or circumstances after the date of such statements, or to reflect the occurrence of anticipated or unanticipated events.

Investors should not rely upon forward-looking statements as predictions of future events. Although TrustCo believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur.

Item 1A. Risk Factors

The following are general risk factors affecting the Company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially and adversely affect our business operations. Any of these risks could materially and adversely affect our business, financial condition or results of operations. In such cases, you may lose all or part of your investment.

Certain interest rate movements may hurt earnings and asset values.

Like other financial institutions, we are subject to interest rate risk. Our primary source of income is net interest income, which is the difference between interest earned on loans and investments, and interest paid on deposits and borrowings. Over any specific period of time, our interest-earning assets may be more sensitive to changes in market interest rates than our interest-bearing liabilities, or vice-versa. In addition, the individual market interest rates underlying our loan and deposit products may not change to the same degree over a given time period. In any event, if market interest rates should move contrary to our position, earnings may be negatively affected. Interest rates have in recent years hit historical low levels. From December 2008 through December 2015, the U.S. Federal Reserve held its target for the federal funds rate at a range of 0.00% to 0.25%. Starting in December 2015, the Federal Reserve started increasing the target range; on December 20, 2018, the FRB increased the target range by 0.25% to a range of 2.25% to 2.50%. Most economists and financial market indicators concur that there will be additional increases in rates. Lower rates have helped lead to a lower cost of funds, but have also lowered the yields we earn on loans, securities, and short-term investments. To the extent that the Federal Reserve raises rates further, our cost of funds may rise faster than the rates we earn on loans and investments, potentially causing a compression of our interest rate spread and net interest margin, which would have a negative effect on Trustco Bank 's profitability.

We also are subject to reinvestment risk associated with changes in interest rates. Changes in interest rates may affect the average life of loans and mortgage-related securities. Increases in interest rates may decrease loan demand and/or may make it more difficult for borrowers to repay adjustable rate loans. Decreases in interest rates often result in increased prepayments of loans and mortgage-related securities, as borrowers refinance their loans to reduce borrowings costs. Under these circumstances, we are subject to reinvestment risk to the extent that we are unable to reinvest the cash received from such prepayments in loans or other investments that have interest rates that are comparable to the interest rates on existing loans and securities. Conversely, increases in interest rates often result in slowed prepayments of loans and mortgage-related securities, reducing cash flows and reinvestment opportunities.

Changes in interest rates also affect the value of the Bank's interest-earning assets, and in particular the Bank's securities portfolio. Generally, the value of fixed-rate securities fluctuates inversely with changes in interest rates. Unrealized gains and losses on securities available for sale are reported as a separate component of equity, net of tax. Decreases in the fair value of securities available for sale resulting from increases in interest rates could have an adverse effect on shareholders' equity.

We are exposed to credit risk in our lending activities.

There are inherent risks associated with our lending and trading activities. Loans to individuals and business entities, our single largest asset group, depend for repayment on the willingness and ability of borrowers to perform as contracted. A material adverse change in the ability of a significant portion of our borrowers to meet their obligation to us, due to changes in economic conditions, interest rates, natural disaster, acts of war, or other causes over which we have no control, could adversely impact the ability of borrowers to repay outstanding loans or the value of the collateral securing these loans, and could have a material adverse impact on our earnings and financial condition.

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

Our borrowers may not repay their loans according to the terms of the loans, and, as a result of the declines in home prices, the collateral securing the payment of these loans may be insufficient to pay any remaining loan balance. We may experience significant loan losses, which could have a material adverse effect on our operating results. When determining the amount of the allowance for loan and lease losses ("ALLL"), 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 for the repayment of many of our loans. In deciding on the adequacy of the allowance for loan losses, management reviews past due information, historical charge-off and recovery data, and nonperforming loan activity. Also, there are a number of other factors that are taken into consideration, including: the magnitude, nature and trends of recent loan charge-offs and recoveries, the growth in the loan portfolio and the implication that it has in relation to the economic climate in the Bank's market territories, and the economic environment in the Upstate New York territory primarily (the Company's largest geographical area) over the last several years, as well as in the Company's other market areas. A significant portion of the allowance is determined using qualitative factors. The determination of qualitative factors involves subjective judgement and subjective measurement. If our assumptions and analysis prove to be incorrect, our ALLL may not be sufficient to cover losses inherent in our loan portfolio, resulting in additions to our allowance which is maintained through provisions for loan losses. Material additions to our allowance would materially decrease our net income.

In June 2016, the FASB issued an accounting standard update, "Financial Instruments-Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments," which replaces the current "incurred loss" model for recognizing credit losses with an "expected loss" model referred to as the Current Expected Credit Loss ("CECL") model. Under the CECL model, we will be required to present certain financial assets carried at amortized cost, such as loans held for investment and held-to-maturity debt securities, at the net amount expected to be collected. The measurement of expected credit losses is to be based on information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount, greatly increasing the type of date we would need to collect and review to determine the appropriate level of the allowance for loan losses. This measurement will take place at the time the financial asset is first added to the balance sheet and periodically thereafter. This differs significantly from the "incurred loss" model required under GAAP, which provides allowances for loan losses that are probable. Accordingly, we expect that the adoption of the CECL model will materially affect how we determine allowance for loan losses and could require us to significantly increase our allowance. Any increase in our allowance for loan losses or expenses incurred to determine the appropriate level of the allowance for loan losses may have a material adverse effect on our business, financial condition, and results of operations.

The new CECL standard will become effective for us for fiscal years beginning after December 15, 2019 and for interim periods within those fiscal years. We are currently evaluating the impact the CECL model will have on our accounting, but we expect to recognize a one-time cumulative-effect adjustment to our allowance for loan losses as of the beginning of the first reporting period in which the new standard is effective, consistent with regulatory expectations set forth in interagency guidance issued at the end of 2016. We cannot yet determine the magnitude of any such one-time cumulative adjustment or of the overall impact of the new standard on our financial condition or results of operations. We have actively created a committee and have assembled a project plan and have begun working toward determining the modeling to be utilized and the magnitude of any such one-time cumulative adjustment.

As discussed under "Regulation and Supervision - Regulatory Capital Requirements and Prompt Corrective Action," the Company and the Bank became subject to new capital requirements in 2015. The new capital rules impose stringent capital requirements on the Company and the Bank and generally require banking organizations to hold high-quality capital to act as a financial cushion to absorb losses and help banking organizations better withstand periods of financial stress. The final rule increased the required minimum capital ratios for all banking organizations and introduced a "capital conservation buffer" that is in addition to each capital ratio.

The regulatory capital rules could slow our growth, cause us to seek to raise additional capital, or both.

The application of more stringent capital requirements for us could, among other things, result in lower returns on equity, require us to limit the growth we may otherwise seek, require the raising of additional capital, and result in regulatory actions such as prohibitions on the payment of dividends, the payment of bonuses to employees or the repurchase of shares if we were unable to comply with such requirements.

If Trustco Bank fails to comply with the new capital standards, the OCC will have the authority to take "prompt corrective action," depending on the Bank's capital level. Currently, the Bank is considered "well-capitalized" for prompt corrective action purposes. If it were to be designated by the OCC in one of the lower capital levels - "undercapitalized," "significantly undercapitalized" and "critically undercapitalized" - the Bank would be required to raise additional capital and also would be subject to progressively more severe restrictions on operations, management, and capital distributions; replacement of senior executive officers and directors; and, if it became "critically undercapitalized," to the appointment of a conservator or receiver.

We currently anticipate that we will continue to be well-capitalized in accordance with the regulatory standards.

A prolonged economic downturn, especially one affecting our geographic market area, will adversely affect our operations and financial results.

Our primary lending emphasis is the origination of one-to-four family first mortgage loans on residential properties; therefore, we are particularly exposed to downturns in the U.S. housing market. The primary risks inherent in our one- to four-family loan portfolio are declines in economic conditions, elevated levels of unemployment or underemployment, and declines in residential real estate values. Any one or a combination of these events may have an adverse impact on borrowers' ability to repay their loans, which could result in increased delinquencies, non-performing assets, loan losses, and future loan loss provisions.

Additionally, we have a concentration of loans secured in New York and Florida. Approximately 76.1% of our loan portfolio is comprised of loans secured by property located in our markets in and around of New York, and approximately 23.9% is comprised of loans secured by property located in Florida. This makes us vulnerable to a downturn in the local economy and real estate markets. Adverse conditions in the local economy such as inflation, unemployment, recession, natural disasters, or other factors beyond our control could impact the ability of our borrowers to repay their loans. Decreases in local real estate values could adversely affect the value of the property used as collateral for our loans, which could cause us to realize a loss in the event of a foreclosure. Currently, there is not a single employer or industry in the area on which the majority of our customers are dependent.

The Company operates in a highly regulated environment and may be adversely affected by changes in laws, regulations and tax policies.

As described above, the Bank is subject to extensive regulation, supervision and examination by the OCC, its primary federal regulator, and by the FDIC, as insurer of our deposits. In addition, the Company is subject to regulation and supervision by the Federal Reserve Board. Such regulation and supervision govern the activities in which an institution and its holding company may engage and are intended primarily for the protection of the deposit insurance fund and the depositors and borrowers of the Bank rather than for holders of the Company's common stock. Congress and federal regulatory agencies continually review banking laws, regulations, and policies for possible changes. Regulatory authorities have extensive discretion in their supervisory and enforcement activities, including the imposition of restrictions on operations, the classification of the Bank's assets, and determination of the level of allowance for loan losses. Any change in such regulation and oversight, whether in the form of regulatory policy, regulations, legislation, or supervisory action, may have a material impact on operations.

The effects of the Tax Cuts and Jobs Act on our business has been fully analyzed and recorded.

The Company operates in an environment that imposes income taxes on its operations at both the federal and state levels to varying degrees. Strategies and operating routines have been implemented to minimize the impact of these taxes. Consequently, any change in tax legislation could significantly alter the effectiveness of these strategies. On December 22, 2017 H.R.1, commonly known as the Tax Cuts and Jobs Act (the "Act"), was signed into law. The Act includes many provisions that will affect our income tax expense, including reducing our federal tax rate from 35% to 21%, effective January 1, 2018. As a result of this rate reduction, we are required to re-measure, through income tax expense in the period of enactment, our deferred tax assets and liabilities using the enacted rate at which we expect them to be recovered or settled. The re-measurement of our net deferred tax asset resulted in additional fourth quarter 2017 income tax expense of \$5.1 million.

Also on December 22, 2017, the U.S. Securities and Exchange Commission ("SEC") released Staff Accounting Bulletin No. 118 ("SAB 118") to address any uncertainty or diversity of views in practice in accounting for the income tax effect of the Act in situations where a registrant does not have the necessary information available, prepared, or analyzed in reasonable detail to complete this accounting in the reporting period that includes the enactment date. SAB 118 allows for a measurement period, not to extend beyond one year of the Act's enactment date, to complete the necessary accounting.

As of December 31, 2018, the Company's deferred tax liability for temporary differences between the tax and financial reporting bases of fixed assets and the implementation of software updates to process the calculations associated with the Act's provisions has been completed. This Act's provision allows for 100% bonus depreciation on fixed assets placed in service after September 27, 2017. The adjustment to the temporary difference between the tax and financial reporting bases of fixed assets resulted in a one-time benefit of \$880 thousand.

The new legislation also enacted limitations on certain deductions that will have an impact on the banking industry, borrowers and the market for single-family residential real estate. These limitations include (1) a lower limit on the deductibility of mortgage interest on a single-family residential mortgage loans, (2) the elimination of interest deductions for certain home equity loans, (3) a limitation on the deductibility of business interest expense, and (4) a limitation on the deductibility of property taxes and state and local income taxes.

The recent changes in the federal tax laws may have an adverse effect on the market for, and the valuation of, residential properties, and on the demand for such loans in the future, and could make it harder for borrowers to make their loan payments. In addition, these recent changes may also have a disproportionate effect on taxpayers in states with high residential home prices and high state and local taxes, like New York. If home ownership becomes less attractive, demand for mortgage loans could decrease. The value of the properties securing loans in our loan portfolio may be adversely impacted as a result of the changing economics of home ownership, which could require an increase in our provision for loan losses, which would reduce our profitability and could materially adversely affect our business, financial condition and results of operations.

Our ability to pay dividends is subject to regulatory limitations and other limitations which may affect our ability to pay dividends to our stockholders or to repurchase our common stock.

TrustCo is a separate legal entity from its subsidiary, Trustco Bank, and does not have significant operations of its own. The availability of dividends from Trustco Bank is limited by various statutes and regulations. It is possible, depending upon the financial condition of the Bank and other factors that the OCC or the Federal Reserve Board could assert that payment of dividends or other payments may result in an unsafe or unsound practice. In addition, TrustCo is subject to consolidated capital requirements and will be required to serve as a source of strength to TrustCo Bank. If the Bank is unable to pay dividends to TrustCo, or if TrustCo is required to retain capital or contribute capital to the Bank, we may not be able to pay dividends on our common stock or to repurchase shares of common stock.

Changes in laws and regulations and the cost of regulatory compliance with new laws and regulations may adversely affect our operations and our income.

We are subject to extensive regulation, supervision, and examination by the OCC, FRB, and FDIC. These regulatory authorities have extensive discretion in connection with their supervisory and enforcement activities, including the ability to impose restrictions on a bank's operations, reclassify assets, determine the adequacy of a bank's loss allowances, and determine the level of deposit insurance premiums assessed. The Dodd-Frank Act significantly affected the lending, deposit, investment, trading, and operating activities of financial institutions and their holding companies and will continue to do so. Any change in banking regulations and oversight, and the regulation of other agencies, such as the BCFP and the U.S. Department of Housing and Urban Development, whether in the form of regulatory policy, new regulations or legislation, or additional deposit insurance premiums, could have a material impact on our operations. New or revised rules may increase our regulatory compliance burden and costs and restrict the financial products and services we offer to our customers.

Further, there may be additional laws and regulations, or changes in policy, affecting lending and funding practices, regulatory capital limits, interest rate risk management, and liquidity standards. The federal bank regulatory agencies may require us to maintain capital ratios in excess of regulatory requirements, and new laws and regulations may increase our costs of regulatory compliance and of doing business, and otherwise affect our operations. New laws and regulations may significantly affect the markets in which we do business, the markets for and value of our loans and investments, the products we offer, the fees we can charge and our ongoing operations, costs, and profitability.

Our business could be adversely affected by third-party service providers, data breaches and cyber-attacks.

We face the risk of operational disruption, failure, or capacity constraints due to our dependency on third-party vendors for components of our business infrastructure. While we have selected these third-party vendors through our vendor management process, we do not control their operations. As such, any failure on the part of these business partners to perform their various responsibilities could also adversely affect our business and operations.

Our assets that are at risk for cyber-attacks include financial assets and non-public information belonging to customers. We use several third-party vendors who have access to our assets via electronic media. Certain cyber security risks arise due to this access, including cyber espionage, blackmail, ransom, and theft. We employ many preventive and detective controls to protect our assets and provide recurring information security training to all employees. To date, we have not experienced any material losses relating to cyber-attacks or other information security breaches, but there can be no assurance that we will not suffer such attacks or attempted breaches, or incur resulting losses, in the future. Our risk and exposure to these matters remains heightened because of, among other things, the evolving nature of these threats, our plans to continue to implement Internet and mobile banking to meet customer demand, and the current economic and political environment. As cyber and other data security threats continue to evolve, we may be required to expend significant additional resources to continue to modify and enhance our protective measures or to investigate and remediate any security vulnerabilities.

A failure in or breach of our operational or security systems or infrastructure, or those of third parties, could disrupt our businesses, and adversely impact our results of operations, liquidity and financial condition, as well as cause reputational harm.

The potential for operational risk exposure exists throughout our organization and, as a result of our interactions with, and reliance on, third parties, is not limited to our own internal operational functions. Our operational and security systems, infrastructure, including our computer systems, data management, and internal processes, as well as those of third parties, are integral to our performance. We rely on our employees and third parties in our day-to-day and ongoing operations, who may, as a result of human error, misconduct, malfeasance or failure, or breach of third-party systems or infrastructure, expose us to risk. We have taken measures to implement backup systems and other safeguards to support our operations, but our ability to conduct business may be adversely affected by any significant disruptions to us or to third parties with whom we interact and rely. For example, strategic technology project implementation challenges may cause business interruptions. In addition, our ability to implement backup systems and other safeguards with respect to third-party systems is more limited than with respect to our own systems. Our financial, accounting, data processing, backup or other operating or security systems and infrastructure may fail to operate properly or become disabled or damaged as a result of a number of factors including events that are wholly or partially beyond our control which could adversely affect our ability to process these transactions or provide these services. There could be sudden increases in customer transaction volume; electrical, telecommunications or other major physical infrastructure outages; natural disasters such as earthquakes, tornadoes, hurricanes and floods; disease pandemics; and events arising from local or larger scale political or social matters, including terrorist acts. We continuously update these systems to support our operations and growth and to remain compliant with all applicable laws, rules and regulations globally. This updating entails significant co

Unauthorized disclosure of sensitive or confidential client or customer information, whether through a breach of our computer systems or otherwise, could severely harm our business.

As part of our financial institution business, we collect, process, and retain sensitive and confidential customer information. Despite the security measures we have in place, our facilities and systems, and those of our third-party service providers, may be vulnerable to security breaches, acts of vandalism, computer viruses, misplaced or lost data, programming and/or human errors, or other similar events. If information security is breached, information can be lost or misappropriated, resulting in financial loss or costs to us. Any security breach involving confidential customer information, whether by us or by our vendors, could severely damage our reputation, expose us to the risks of litigation and liability or disrupt our operations and have a material adverse effect on our business.

We could suffer a material adverse impact from interruptions in the effective operation of, or security breaches affecting, our computer systems.

We rely heavily on information systems to conduct our business and to process, record, and monitor our transactions. Risks to the systems result from a variety of factors, including the potential for bad acts on the part of hackers, criminals, employees and others. As one example, in recent years, some banks have experienced denial of service attacks in which individuals or organizations flood the bank's website with extraordinarily high volumes of traffic, with the goal and effect of disrupting the ability of the bank to process transactions. We are also at risk for the impact of natural disasters, terrorism, and international hostilities on our systems or for the effects of outages or other failures involving power or communications systems operated by others. These risks also arise from the same types of threats to businesses with which we deal.

Potential adverse consequences of attacks on our computer systems or other threats include damage to our reputation, loss of customer business, litigation, and increased regulatory scrutiny, which might also result in financial loss and require additional efforts and expense to attempt to prevent such adverse consequences in the future.

Consumers and businesses are increasingly using non-banks to complete their financial transactions, which could adversely affect our business and results of operations

Technology and other changes are allowing consumers and businesses to complete financial transactions that historically have involved banks through alternative methods. For example, the wide acceptance of Internet-based commerce has resulted in a number of alternative payment processing systems and lending platforms in which banks play only minor roles. Customers can now maintain funds in prepaid debit cards or digital currencies, and pay bills and transfer funds directly without the direct assistance of banks. The diminishing role of banks as financial intermediaries has resulted and could continue to result in the loss of fee income, as well as the loss of customer deposits and the related income generated from those deposits. The loss of these revenue streams and the potential loss of lower cost deposits as a source of funds could have a material adverse effect on our business, financial condition and results of operations.

Market volatility levels have experienced significant variations in recent years and a return to very high volatility levels could adversely affect us.

The stock and credit markets have been experiencing significant variations in volatility levels in recent years. In some cases, the markets have produced downward pressure on stock prices and credit availability for certain issuers without regard to those issuers 'underlying financial strength. Current volatility levels have diminished significantly from the peak, but a return to higher levels could cause the Company to experience an adverse effect, which may be material, on our ability to access capital and on our business, financial condition and results of operations.

The soundness of other financial institutions could adversely affect us.

Our ability to engage in routine funding transactions could be adversely affected by the actions and commercial soundness of other financial institutions. Financial services institutions are interrelated as a result of trading, clearing, counterparty, or other relationships. We have exposure to many different counterparties, and we routinely execute transactions with counterparties in the financial services industry, including brokers and dealers, banks, investment banks, mutual funds, and other institutional entities. As a result, defaults by, or even rumors or questions about, one or more financial services institutions, or the financial services industry generally, have led to market-wide liquidity problems and could lead to losses or defaults by us or by other institutions. Many of these transactions expose us to credit risk in the event of default of our counterparty or client. Any such losses could be material and could materially and adversely affect our business, financial condition and results of operations.

We are subject to claims and litigation pertaining to fiduciary responsibility and lender liability.

Some of the services we provide, such as trust and investment services, require us to act as fiduciaries for our customers and others. In addition, loan workout and other activities may expose us or Trustco Bank to legal actions, including lender liability or environmental claims. From time to time, third parties make claims and take legal action against us pertaining to the performance of our fiduciary responsibilities or loan-related activities. If these claims and legal actions are not resolved in a manner favorable to us, we may be exposed to significant financial liability and/or our reputation could be damaged. Either of these results may adversely impact demand for our products and services or otherwise have a harmful effect on our business and, in turn, on our financial condition, results of operations and prospects.

We may not be able to meet the cash flow requirements of our depositors or borrowers or meet our operating cash needs to fund corporate expansion and other activities.

Liquidity is the ability to meet cash flow needs on a timely basis at a reasonable cost. The liquidity of Trustco Bank is used to make loans and to repay deposit liabilities as they become due or are demanded by customers. Liquidity policies and limits have been established by our board of directors, and our management monitors the overall liquidity position of Trustco Bank to ensure that various alternative strategies exist to cover unanticipated events that could affect liquidity. Trustco Bank is also a member of the Federal Reserve System and Federal Home Loan Bank System, each of which provides funding to members through advances and other extensions of credit that are typically collateralized with securities or mortgage-related assets. Our securities portfolio can be used as a secondary source of liquidity, and additional liquidity could be obtained from securities sold under repurchase agreements, non-core deposits, and debt or equity securities issuances in public or private transactions. If we were unable to access any of these funding sources when needed, we might not be able to meet the needs of our customers, which could adversely affect our financial condition, our results of operations, cash flows and our level of regulatory capital.

New lines of business or new products and services may subject us to additional risks.

From time to time, we may develop and grow new lines of business or offer new products and services within our existing lines of business. There are substantial risks and uncertainties associated with these efforts, particularly in instances where the markets are not fully developed. In developing and marketing new lines of business and/or new products and services, we may invest significant time and resources. Initial timetables for the introduction and development of new lines of business and/or new products or services may not be achieved and price and profitability targets may not prove feasible. External factors, such as compliance with regulations, competitive alternatives, and shifting market preferences, may also impact the successful implementation of a new line of business or a new product or service. Furthermore, any new line of business and/or new product or service could have a significant impact on the effectiveness of our system of internal controls. Failure to successfully manage these risks in the development and implementation of new lines of business or new products or services could have a material adverse effect on our business, results of operations and financial condition. All service offerings, including current offerings and those which may be provided in the future, may become more risky due to changes in economic, competitive and market conditions beyond our control.

We may be subject to a higher effective tax rate if Trustco Realty Corp. ("Trustco Realty") fails to qualify as a real estate investment trust ("REIT").

Trustco Realty, a subsidiary of Trustco Bank, operates as a REIT for tax purposes. Trustco Realty was established to acquire, hold and manage mortgage assets and other authorized investments to generate net income for distribution to its shareholders.

For an entity to qualify as a REIT, it must meet certain organizational tests and it must satisfy the following six asset tests under the Internal Revenue Code each quarter: (1) at least 75% of the value of the REIT's total assets must consist of real estate assets, cash and cash items, and government securities; (2) not more than 25% of the value of the REIT's total assets may consist of securities, other than those includible under the 75% test; (3) not more than 5% of the value of its total assets may consist of securities of any one issuer, other than those securities includible under the 75% test or securities of a taxable REIT subsidiary; (4) not more than 10% of the outstanding voting power of any one issuer may be held, other than those securities includible under the 75% test or securities of a taxable REIT subsidiary; (5) not more than 10% of the total value of the outstanding securities of any one issuer may be held, other than those securities includible under the 75% test or securities of a taxable REIT subsidiary; and (6) a REIT cannot own securities in one or more taxable REIT subsidiaries which comprise more than 25% of the value of its total assets. At December 31, 2018, Trustco Realty met all six quarterly asset tests.

Also, a REIT must satisfy the following two gross income tests each year: (1) at least 75% of its gross income must be from qualifying income closely connected with real estate activities; and (2) 95% of its gross income must be derived from sources qualifying for the 75% test and dividends, interest, and gains from the sale of securities. In addition, a REIT must distribute at least 90% of its taxable income for the taxable year, excluding any net capital gains, to maintain its non-taxable status for federal income tax purposes. For 2018, Trustco Realty had met the two annual income tests and the distribution test.

If Trustco Realty fails to meet any of the required provisions and, therefore, does not qualify to be a REIT, our effective tax rate would increase.

The trust wealth management fees we receive may decrease as a result of poor investment performance, in either relative or absolute terms, which could decrease our revenues and net earnings.

Our Trustco Financial Services department derives its revenues primarily from investment management fees based on assets under management. Our ability to maintain or increase assets under management is subject to a number of factors, including investors' perception of our past performance, in either relative or absolute terms, market and economic conditions, and competition from investment management companies. Financial markets are affected by many factors, all of which are beyond our control, including general economic conditions, securities market conditions, the level and volatility of interest rates and equity prices, competitive conditions, monetary and fiscal policy and investor sentiment. A decline in the value of the assets under management would decrease our income. Further certain of our investment advisory and wealth management clients can terminate, with little or no notice, their relationships with us, reduce their aggregate assets under management, or shift their funds to other types of accounts with different rate structures.

Strong competition within the Bank's market areas could hurt profits and slow growth.

The Bank faces intense competition both in making loans and attracting deposits. This competition comes principally from other banks, savings and loan associations, credit unions, mortgage companies, other lenders, and institutions offering uninsured investment alternatives. Many of our competitors have competitive advantages, including greater financial resources and higher lending limits, a wider geographic presence, more accessible branch office locations, more aggressive marketing campaigns and better brand recognition, and the ability to offer a wider array of services or more favorable pricing alternatives, as well as lower origination and operating costs. Competition has made it more difficult for the Bank to make new loans and at times has forced the Bank to offer higher deposit rates. Price competition for loans and deposits might result in the Bank earning less on loans and paying more on deposits, which would reduce net interest income. Competition also makes it more difficult to grow loans and deposits and to hire and retain experienced employees. Management expects competition to increase in the future as a result of legislative, regulatory and technological changes and the continuing trend of consolidation in the financial services industry. The Bank's profitability depends upon its continued ability to compete successfully in its market areas.

We are dependent upon the services of our management team.

We are dependent upon the ability and experience of a number of our key management personnel who have substantial experience with our operations, the financial services industry and the markets in which we offer our services. It is possible that the loss of the services of one or more of our senior executives or key managers would have an adverse effect on our operations. Our success also depends on our ability to continue to attract, manage and retain other qualified middle management personnel as we grow. We cannot assure you that we will continue to attract or retain such personnel.

Provisions in our articles of incorporation and bylaws and New York law may discourage or prevent takeover attempts, and these provisions may have the effect of reducing the market price of our stock.

Our articles of incorporation and bylaws include several provisions that may have the effect of discouraging or preventing hostile takeover attempts, and therefore, making the removal of incumbent management difficult. The provisions include staggered terms for our board of directors and requirements of supermajority votes to approve certain business transactions. In addition, New York law contains several provisions that may make it more difficult for a third party to acquire control of us without the approval of the board of directors, and may make it more difficult or expensive for a third party to acquire a majority of our outstanding stock. To the extent that these provisions are effective in discouraging or preventing takeover attempts, they may tend to reduce the market price for our stock.

Changes in accounting standards could impact reported earnings.

The accounting standard setting bodies, including the Financial Accounting Standards Board, the Securities and Exchange Commission and other regulatory bodies, periodically change financial accounting and reporting standards that govern the preparation of our consolidated statements. These changes can be hard to predict and can materially impact how the Company records and reports its financial condition and results of operations. In some cases, we could be required to apply a new or revised accounting standard retroactively, which could affect beginning of period financial statement amounts.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

Our disclosure controls and procedures are designed to reasonably assure that information required to be disclosed by TrustCo in reports we file or submit under the Securities Exchange Act of 1934 is accumulated and communicated to management, and recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. We believe that any disclosure controls and procedures or internal controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistakes. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

The preparation of financial statements requires the use of estimates that may vary from actual results.

Preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make significant estimates that affect the financial statements. One of our most critical estimates is the level of the allowance for loan losses. Due to the inherent nature of this estimate, we cannot provide absolute assurance that we will not significantly increase the allowance for loan losses higher than the current balance.

We rely on communications, information, operating and financial control systems, and technology from third-party service providers, and we may suffer an interruption in those systems that may result in lost business. Further, we may not be able to substitute providers on terms that are as favorable if our relationships with our existing service providers are interrupted.

We rely heavily on third-party service providers for much of our communications, information, operating and financial controls systems, and technology. Any failure or interruption or breach in security of these systems could result in failures or interruptions in our customer relationships management, general ledger, deposit, servicing and/or loan origination systems. We cannot assure you that such failures or interruptions will not occur or, if they do occur, that they will be adequately addressed by us or the third parties on which we rely. The occurrence of any failure or interruption could have a material adverse effect on our business, financial condition, results of operations and cash flows. If any of our third-party service providers experience financial, operational or technological difficulties, or if there is any other disruption in our relationships with them, we may be required to locate alternative sources of such services, and we cannot assure you that we could negotiate terms that are as favorable to us, or could obtain services with similar functionality as found in our existing systems, without the need to expend substantial resources, if at all. Any of these circumstances could have a material adverse effect on our business, financial condition, results of operations and cash flows.

If the business continuity and disaster recovery plans that we have in place are not adequate to continue our operations in the event of a disaster, the business disruption can adversely impact our operations.

External events, including terrorist or military actions, or an outbreak of disease, and resulting political and social turmoil could cause unforeseen damage to our physical facilities or could cause delays or disruptions to operational functions, including information processing and financial market settlement functions. Additionally, our customers, vendors and counterparties could suffer from such events. Should these events affect us, or our customers, or vendors or counterparties with which we conduct business, our results of operations could be adversely affected.

The Company's risk-management framework may not be effective in mitigating risk and loss.

The Company maintains an enterprise risk management program that is designed to identify, quantify, monitor, report, and control the risks that it faces. These risks include: interest-rate, credit, liquidity, operations, reputation, compliance and litigation. While the Company assesses and improves this program on an ongoing basis, there can be no assurance that its approach and framework for risk management and related controls will effectively mitigate all risk and limit losses in its business. If conditions or circumstances arise that expose flaws or gaps in the Company 's risk-management program, or if its controls break down, the performance and value of its business could be adversely affected.

Item 1B Unresolved Staff Comments

None.

Item 2. Properties

TrustCo's executive offices are located at 5 Sarnowski Drive, Glenville, New York, 12302. The Company operates 148 banking offices, of which 24 are owned and 124 are leased from others. The asset value of these properties, when considered in the aggregate, is not material to the operation of TrustCo.

In the opinion of management, the physical properties of TrustCo and the Bank are suitable and adequate and are being fully utilized.

Item 3. Legal Proceedings

The nature of TrustCo 's business generates a certain amount of litigation against TrustCo and its subsidiaries involving matters arising in the ordinary course of business. In the opinion of management of TrustCo, there are no proceedings pending to which TrustCo or any of its subsidiaries is a party, or of which its property is the subject which, if determined adversely to TrustCo or such subsidiaries, would be material in relation to TrustCo 's consolidated shareholders 'equity and financial condition.

Item 4. Mine Safety Disclosure

Not applicable.

Executive Officers of TrustCo

The following is a list of the names and ages of the executive officers of TrustCo and their business history for the past five years:

Name, Age and Position With Trustco	Principal Occupations Or Employment Since January 1, 2008	Year First Became Executive of TrustCo
Robert J. McCormick, Age 55, President and Chief Executive Officer	Chairman, President and Chief Executive Officer of TrustCo from January 2009 to December 2010, President and Chief Executive Officer of TrustCo since January 2004, Executive Officer of TrustCo since 2001 and President and Chief Executive Officer of Trustco Bank since November 2002. Chairman of TrustCo and Trustco Bank from November 2008 to December 2010. Director of TrustCo and Trustco Bank since 2005. Robert J. McCormick is the son of Robert A. McCormick. Joined Trustco Bank in 1995.	2001
Scot R. Salvador, Age 52, Executive Vice President and Chief Lending Officer	Executive Vice President and Chief Lending Officer of TrustCo and Trustco Bank since January 2004. Executive Officer of TrustCo and Trustco Bank since 2004. Joined Trustco Bank in 1995.	2004
Robert M. Leonard , Age 56, Executive Vice President and Chief Risk Officer	Secretary or Assistant Secretary of TrustCo and Trustco Bank since 2003. Executive Vice President of TrustCo and Trustco Bank since 2013. Senior Vice President of TrustCo and Trustco Bank from 2010 to 2013. Administrative Vice President of TrustCo and Trustco Bank from 2004 to 2010. Executive Officer of TrustCo and Trustco Bank since 2003. Joined Trustco Bank in 1986.	2003
Michael M. Ozimek Age 44, Executive Vice President and Chief Financial Officer	Executive Vice President of TrustCo and Trustco Bank since December 2018. Senior Vice President and Chief Financial Officer since December 2014. Administrative Vice President of TrustCo and Trustco Bank from June 2010 to December 2014. Vice President of Trustco Bank from 2004 to June 2010.	2014
Eric W. Schreck Age 52, Senior Vice President and Treasurer	Treasurer of TrustCo since 2010. Senior Vice President and Florida Regional President since 2009. Executive Officer of TrustCo and Trustco Bank since 2010. Joined Trustco Bank in 1989.	2010
Michael Hall Age 53, General Counsel and Corporate Secretary	Secretary of TrustCo and Trustco Bank since 2016. Vice President of Trustco Bank since 2015. Joined Trustco Bank in 2015. Prior to 2015, attorney in private practice.	2016
Kevin M. Curley Age 53, Executive Vice President and Chief Operations Officer	Executive Vice President and Chief Operations Officer of TrustCo and Trustco Bank since December 2018. Joined Trustco Bank in 1990.	2018

PART II

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

TrustCo 's common stock is traded on The NASDAQ Stock Market, LLC under the symbol "TRST." TrustCo had approximately 11,575 shareholders of record as of February 27, 2019, and the closing price of TrustCo 's common stock on that date was \$8.51.

The following table provides information, as of December 31, 2018, regarding securities authorized for issuance under TrustCo's equity compensation plans.

			Number of securities remaining
			available for
	Number of		future
	securities to		issuance under
	be		equity
	issued upon		compensation
	exercise of	Weighted-average	plans
	outstanding	exercise price of	(excluding
	options,	outstanding	securities
	warrants	options, warrants	reflected
	and rights	and rights	in column (a))
Plan category	(a)	(b)	(c)
Equity compensation plans approved by security holders	554,641	\$ 6.65	1,517,183
Equity compensation plan not approved by security holders	N/A	N/A	N/A
Total	554,641	\$ 6.65	1,517,183

The following details the purchase of shares of TrustCo 's common stock made by or on behalf of TrustCo in the fourth quarter of the year ended December 31, 2018

Issuer Purchases of Equity Securities

Period	(a) Total Number of Shares Purchased*	(b) Average Price Paid Per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or	(d) Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
October 1 to October 31, 2018		- \$	-	
November 1 to November 30, 2018		- \$	-	
December 1 to December 31, 2018		- \$		<u> </u>
Total		- \$	-	

^{*}Purchase relates to an employee exercise of incentive stock options.

The TrustCo Annual Report to Shareholders for the year ended December 31, 2018, which is filed as Exhibit 13 hereto, contains a graph comparing the yearly percentage change in the Company's cumulative total shareholder return on its common stock with the cumulative return of the Russell 2000 and the SNL Bank and Thrift indices. Such graph is incorporated herein by reference.

Item 6. Selected Financial Data

The information required by this this Item 6 is incorporated herein by reference from the table captioned "FIVE YEAR SUMMARY OF FINANCIAL DATA" in TrustCo's Annual Report to Shareholders for the year ended December 31, 2018, which is filed as Exhibit 13 hereto.

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

The information required by this this Item 7 is contained in TrustCo's Annual Report to Shareholders for the year ended December 31, 2018, which is filed as Exhibit 13 hereto and incorporated herein by reference.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

The information required by this Item 7A is contained in TrustCo's Annual Report to Shareholders for the year ended December 31, 2018, which is filed as Exhibit 13 hereto and incorporated herein by reference.

Item 8. Financial Statements and Supplementary Data

The consolidated financial statements, together with the report thereon of Crowe LLP, and the required supplementary financial data are included in TrustCo's Annual Report to Shareholders for the year ended December 31, 2018, which is filed as Exhibit 13 hereto and incorporated herein by reference.

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

None.

Item 9A. Controls and Procedures

An evaluation was carried out under the supervision and with the participation of the Company's management, including the Chief Executive Officer and Chief Financial Officer, of the effectiveness of the Company's disclosure controls and procedures as of the end of the period covered by this report. Disclosure controls and procedures are procedures that are designed with the objective of ensuring that information required to be disclosed in the Company's reports filed under the Securities Exchange Act of 1934, such as this Form 10-K, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures are effective to satisfy the objectives for which they are designed.

Management's Report on Internal Control over Financial Reporting, together with the report thereon of Crowe LLP is included in TrustCo's Annual Report to Shareholders for the year ended December 31, 2018, which is filed as Exhibit 13 hereto, are incorporated herein by reference.

There have been no changes in the Company's internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934) that occurred during the Company's quarter ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item 10 is incorporated herein by reference to the disclosure under the headings "Information on TrustCo Directors and Nominees" and "Information on TrustCo Executive Officers" and "Section 16(a) Beneficial Ownership Reporting Compliance" in the Company's Proxy Statement (Schedule 14A) for its 2019 Annual Meeting of Shareholders to be filed with the SEC within 120 days of the Company's fiscal year-end. TrustCo has adopted a code of conduct that applies to all employees, including its principal executive, financial and accounting officers. A copy of this code of conduct will be provided without charge upon written request. Requests and inquiries should be directed to: Robert M. Leonard, Executive Vice President, TrustCo Bank Corp NY, P.O. Box 1082, Schenectady, New York 12301-1082. The required information regarding TrustCo's executive officers is contained in PART I in the item captioned "Executive Officers of TrustCo."

Item 11. Executive Compensation

The information required by this Item 11 is incorporated herein by reference to the Company's Proxy Statement (Schedule 14A) for its 2019 Annual Meeting of Shareholders to be filed with the SEC within 120 days of the Company's fiscal year-end.

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

The information required by this Item 12 is incorporated herein by reference to the Company's Proxy Statement (Schedule 14A) for its 2019 Annual Meeting of Shareholders to be filed with the SEC within 120 days of the Company's fiscal year-end. Additional information concerning the Company's equity compensation plans is set forth in Part II, Item 5 hereof.

Item 13. Certain Relationships, Related Transactions and Director Independence

The information required by this Item 13 is incorporated herein by reference to the Company's Proxy Statement (Schedule 14A) for its 2019 Annual Meeting of Shareholders to be filed with the SEC within 120 days of the Company's fiscal year-end.

Item 14. Principal Accountant Fees and Services

The information required by this Item 14 is incorporated herein by reference to the Company's Proxy Statement (Schedule 14A) for its 2019 Annual Meeting of Shareholders to be filed with the SEC within 120 days of the Company's fiscal year-end.

PART IV

Item 15. Exhibits, Financial Statement Schedules

The following financial statements of TrustCo and its consolidated subsidiaries, and the accountants' report thereon are filed as a part of this report.

Consolidated Statements of Condition -- December 31, 2018 and 2017.

Consolidated Statements of Income -- Years Ended December 31, 2018, 2017 and 2016.

Consolidated Statements of Comprehensive Income -- Years Ended December 31, 2018, 2017 and 2016.

Consolidated Statements of Changes in Shareholders' Equity -- Years Ended December 31, 2018, 2017 and 2016.

Consolidated Statements of Cash Flows -- Years Ended December 31, 2018, 2017 and 2016.

Notes to Consolidated Financial Statements .

Financial Statement Schedules

Not Applicable. All required schedules for TrustCo and its subsidiaries have been included in the consolidated financial statements or related notes thereto.

Supplementary Financial Information

Summary of Unaudited Quarterly Financial Information for the years ended December 31, 2018 and 2017.

Exhibits

See the Exhibit Index that appears at the end of this document and is incorporated herein.

Item 16. Form 10-K Summary

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TrustCo Bank Corp NY

Date: March 1, 2019 By: /s/ Michael M. Ozimek

Michael M. Ozimek

Executive Vice President and Chief Financial

Officer

Signatures

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.

Name and Signature	Title	Date
/s/ Robert J. McCormick		
Robert J. McCormick	Chairman, President and Chief Executive Officer (principal executive officer)	March 1, 2019
/s/ Michael M. Ozimek		
Michael M. Ozimek	Executive Vice President and Chief Financial Officer (principal financial and accounting officer)	March 1, 2019
* Dennis A. DeGennaro	Chairman	March 1, 2019
* Brian C. Flynn	Director	March 1, 2019
* Thomas O. Maggs	Director	March 1, 2019
* Dr. Anthony J. Marinello	Director	March 1, 2019
* William D. Powers	Director	March 1, 2019
* Lisa M. Lucarelli	Director	March 1, 2019
* /s/ Robert M. Leonard By: Robert M. Leonard, as Agent Pursuant to Power of Attorney		
	30	

Exhibit No.	<u>Description</u>
<u>3(i)</u>	Amended and Restated Certificate of Incorporation of TrustCo Bank Corp NY, as amended, incorporated by reference to Exhibit 3(i) to TrustCo Bank Corp NY 's Report on Form 10-K, filed March 4 2016.
<u>3(ii)</u>	Amended and Restated Bylaws of TrustCo Bank Corp NY, dated September 16, 2008, incorporated by reference to Exhibit 99(a) to TrustCo Bank Corp NY 's Report on Form 8-K, filed September 16, 2008.
<u>10(a)*</u>	Amended and Restated Trust For Deferred Benefits Provided under Employment Agreements of Trustco Bank, National Association and TrustCo Bank Corp NY, dated September 18, 2001 incorporated by reference to Exhibit 10(b) to TrustCo Bank Corp NY 's Annual Report on Form 10-K, for the year ended December 31, 2001.
<u>10(b)*</u>	Amended and Restated Trust Under Non-Qualified Deferred Compensation Plans of Trustco Bank, National Association and TrustCo Bank Corp NY, dated September 18, 2001, incorporated by reference to, Exhibit 10(c) to TrustCo Bank Corp NY 's Annual Report on Form 10-K, for the year ended December 31, 2001.
<u>10(c)*</u>	Amended and Restated Trustco Bank and TrustCo Bank Corp NY Supplemental Retirement Plan, effective as of January 1, 2008, incorporated by reference to Exhibit 99.6 to TrustCo Bank Corp NY's Current Report on Form 8-K filed December 22, 2008.
<u>10(d)*</u>	Second Amended and Restated TrustCo Bank Corp NY Performance Bonus Plan, effective as of January 1, 2008, incorporated by reference to Exhibit 99.5 to TrustCo Bank Corp NY 's Current Report on Form 8-K filed December 22, 2008.
<u>10(e)*</u>	Amendment No. 1 to Second Amended and Restated TrustCo Bank Corp NY Performance Bonus Plan, effective January 1, 2010, incorporated by reference to Exhibit 99(e) to TrustCo Bank Corp NY 's Current Report on Form 8-K filed January 19, 2010.
<u>10(f)*</u>	Form of 2008 Amended and Restated Employment Agreement between Trustco Bank, TrustCo Bank Corp NY and Robert J. McCormick, Robert T. Cushing and Scot R. Salvador, effective as of January 1, 2008, incorporated by reference to Exhibit 99.8 to TrustCo Bank Corp NY's Current Report on Form 8-K filed December 22, 2008.
<u>10(g)*</u>	Amendment No. 2 to Amended and Restated TrustCo Bank Corp NY Directors Stock Option Plan, effective January 1, 2010, incorporated by reference to Exhibit 99(d) to TrustCo Bank Corp NY 's Current Report on Form 8-K filed January 19, 2010.
<u>10(h)*</u>	Second Amended and Restated TrustCo Bank Corp NY Directors Performance Bonus Plan, effective as of January 1, 2008, incorporated by reference to Exhibit 99.4 to TrustCo Bank Corp NY's Current Report on Form 8-K filed December 22, 2008.
<u>10(i)*</u>	Amendment No. 1, Second Amended and Restated TrustCo Bank Corp NY Directors Performance Bonus Plan, effective January 1, 2010, incorporated by reference to Exhibit 99(f) to TrustCo Bank Corp NY 's Current Report on Form 8-K filed January 19, 2010.
<u>10(j)*</u>	Form of Performance Share Award Agreement under the TrustCo Bank Corp NY Amended and Restated 2010 Equity Incentive Plan, incorporated by reference to Exhibit 10(b) to TrustCo Bank Corp NY 's Current Report on Form 8-K filed November 20, 2015.

10(k)*	Amended and Restated Trustco Bank Deferred Compensation Plan for Directors, effective as of January 1, 2008, incorporated by reference to Exhibit 99.3 to TrustCo Bank Corp NY 's Current Report on Form 8-K filed December 22, 2008.
<u>10(1)*</u>	Service Bureau Processing Agreement by and between Fidelity Information Services, Inc. and TrustCo Bank Corp NY dated March 3, 2004 incorporated by reference to Exhibit 10(b) to TrustCo Bank Corp NY 's Quarterly Report on Form 10-Q, for the quarter ended March 31, 2004.
<u>10(m)*</u>	Master Service Agreement by and between Sungard Wealth Management Services, LLC and TrustCo Bank Corp NY dated April 1, 2004 (portions omitted pursuant to a request for confidential treatment) incorporated by reference to Exhibit 10(a) to TrustCo Bank Corp NY 's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2004.
10(n)*	Restatement of Trustco Bank Senior Incentive Plan, effective as of January 1, 2008, incorporated by reference to Exhibit 99.9 to TrustCo Bank Corp NY 's Current Report on Form 8-K filed December 22, 2008.
<u>10(o)*</u>	Form of Amendments to 2008 Amended and Restated Employment Agreement between Trustco Bank, TrustCo Bank Corp NY and each of Robert J. McCormick, Robert T. Cushing and Scot R. Salvador, incorporated by reference to Exhibit 99.1 to TrustCo Bank Corp NY 's Current Report on Form 8-K filed March 17, 2009.
<u>10(p)*</u>	First Amendment to Restatement of Trustco Bank Senior Incentive Plan, incorporated by reference to Exhibit 99.2 to TrustCo Bank Corp NY 's Current Report on Form 8-K filed November 18, 2009.
<u>10(q)*</u>	Amended and Restated TrustCo Bank Corp NY 2010 Equity Incentive Plan dated as of March 21, 2017, incorporated by reference to Exhibit 10(a) to TrustCo Bank Corp NY's Current Report on Form 8-K filed March 24, 2017.
<u>10(r)*</u>	Amended and Restated 2010 Directors Equity Incentive Plan dated March 17, 2015, incorporated by reference to Exhibit 10(b) to TrustCo Bank Corp NY 's Current Report on Form 8-K filed March 23, 2015.
<u>10(s)*</u>	Form of Incentive Stock Option Award Agreement under the TrustCo Bank Corp NY Amended and Restated 2010 Equity Incentive Plan, incorporated by reference to Exhibit 10(a) to TrustCo Bank Corp NY 's Current Report on Form 8-K filed November 20, 2015.
<u>10(t)*</u>	Director Incentive Stock Option Award Agreement dated November 15, 2011, incorporated by reference to Exhibit 10(c) to TrustCo Bank Corp NY 's Current Report on Form 8-K filed November 18, 2011.
<u>10(u)*</u>	Form of Performance Share Award Agreement under the TrustCo Bank Corp NY Amended and Restated 2010 Equity Incentive Plan, incorporated by reference to Exhibit 10(a) to TrustCo Bank Corp NY 's Current Report on Form 8-K filed November 18, 2016.
10(v)*	Form of Restricted Stock Unit Award Agreement under the TrustCo Bank Corp NY Amended and Restated 2010 Equity Incentive Plan, incorporated by reference to Exhibit 10(b) to TrustCo Bank Corp NY 's Current Report on Form 8-K filed November 18, 2016.
<u>10(w)*</u>	Form of Directors Restricted Stock Unit Award Agreement under the TrustCo Bank Corp NY Amended and Restated 2010 Directors Equity Incentive Plan, incorporated by reference to Exhibit 10(c) to TrustCo Bank Corp NY 's Current Report on Form 8-K filed November 18, 2016.
10(x)*	Employment Agreement among Trustco Bank, TrustCo Bank Corp NY And Robert M. Leonard, effective November 19, 2013, incorporated by reference to Exhibit 10(a) to TrustCo Bank Corp NY 's Current Report on Form 8-K filed November 25, 2013.

<u>10(y)*</u>	Amendment No. 1 to 2011 Restatement of Trustco Bank Executive Officer Incentive Plan, effective as of December 17, 2013, incorporated by reference to Exhibit 10(a) to TrustCo Bank Corp NY's Current Report on Form 8-K filed December 23, 2013.
<u>10(z)*</u>	Performance-Based Stock Appreciation Unit Agreement dated as of January 21, 2014, incorporated by reference to Exhibit 10(a) to TrustCo Bank Corp NY 's Current Report on Form 8-K filed January 24, 2014.
<u>10(aa)*</u>	Trustco Bank Executive Officer Incentive Plan (Amended and Restated as of February 16, 2016), incorporated by reference to Exhibit 10(a) to TrustCo Bank Corp NY 's Form 8-K filed February 17, 2016.
10(bb)*	Consulting Agreement between TrustCo Bank Corp NY and Robert T. Cushing effective December 22, 2017, incorporated by reference to Exhibit 10.1 to TrustCo Bank Corp NY's Current Report on Form 8-K filed November 22, 2017.
<u>10(cc)*</u>	Form of 2017 Performance Share Award Agreement under the TrustCo Bank Corp NY Amended and Restated 2010 Equity Incentive Plan, incorporated by reference to Exhibit 10(a) to TrustCo Bank Corp NY's Current Report on Form 8-K filed November 27, 2017.
10(dd)*	Form of 2017 Restricted Stock Unit Award Agreement under the TrustCo Bank Corp NY Amended and Restated 2010 Equity Incentive Plan, incorporated by reference to Exhibit 10(b) to TrustCo Bank Corp NY's Current Report on Form 8-K filed November 27, 2017.
<u>10(ee)*</u>	Form of 2017 Directors Restricted Stock Unit Award Agreement under the TrustCo Bank Corp NY Amended and Restated 2010 Directors Equity Incentive Plan, incorporated by reference to Exhibit 10(c) to TrustCo Bank Corp NY's Current Report on Form 8-K filed on November 27, 2017.
10(ff)*	Form of 2018 Performance Share Award Agreement under the TrustCo Bank Corp NY Amended and Restated 2010 Equity Incentive Plan, incorporated by reference to Exhibit 10(a) to TrustCo Bank Corp NY's Current Report on Form 8-K, filed November 23, 2018.
10(gg)*	Form of 2018 Restricted Stock Unit Agreement under the TrustCo Bank Corp NY Amended and Restated 2010 Equity Incentive Plan, incorporated by reference to Exhibit 10(b) to TrustCo Bank Corp NY's Current Report on Form 8-K, filed November 23, 2018.
10(hh)*	Form of 2018 Directors Restricted Stock Unit Agreement under the TrustCo Bank Corp NY Amended and Restated 2010 Equity Incentive Plan, incorporated by reference to Exhibit 10(c) to TrustCo Bank Corp NY's Current Report on Form 8-K, filed November 23, 2018.
<u>10(ii)</u>	Form of Employment Agreement between TrustCo Bank Corp NY and each of Kevin M. Curley and Michael M. Ozimek, effective December 18, 2018, incorporated by reference to Exhibit 10(a) to TrustCo Bank Corp NY's Current Report on Form 8-K filed December 18, 2018.
11**	Computation of Net Income Per Common Share. Note 11 of TrustCo's Annual Report to Shareholders for the year ended December 31, 2018 is incorporated herein by reference.
13**	Portions of Annual Report to Security Holders of TrustCo for the year ended December 31, 2018.

<u>21**</u>	List of Subsidiaries of TrustCo.
23**	Consent of Independent Registered Public Accounting Firm.
<u>23**</u>	Consent of independent Registered Fubile Accounting Firm.
<u>24**</u>	Power of Attorney.
31(i)(a)**	Rule 13a-14(a)/15d-14(a) Certification of Robert J. McCormick, principal executive officer.
31(i)(b)**	Rule 13a-14(a)/15d-14(a) Certification of Michael M. Ozimek, principal financial officer.
32**	Section 1350 Certifications of Robert J. McCormick, principal executive officer and Michael M. Ozimek, principal financial officer.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

^{*} Management contract or compensatory plan or arrangement.

^{**} Filed herewith.



TrustCo Bank Corp NY (the "Company," or "TrustCo") is a savings and loan holding company headquartered in Glenville, New York. The Company is the largest financial services company headquartered in the Capital Region of New York State, and its principal subsidiary, Trustco Bank (the "Bank" or "Trustco"), operates 148 community banking offices and 161 Automatic Teller Machines throughout the Bank's market areas. The Company serves 5 states and 32 counties with a broad range of community banking services.

Financial Highlights

(dollars in thousands, except per share data)		Years ended December 31,							
	2018		2017	Percent Change					
Income:									
Net interest income	\$ 160,6	86 \$	154,368	4.09%					
Net Income	61,4	45	43,145	42.42					
Per Share:									
Basic earnings	0.6	37	0.449	41.87					
Diluted earnings	0.6	36	0.448	41.96					
Book value at period end	5.	07	4.76	6.51					
Average Balances:									
Assets	4,900,4	50	4,875,668	0.51					
Loans, net	3,746,0	32	3,514,900	6.58					
Deposits	4,206,5	77	4,171,396	0.84					
Shareholders' equity	470,8	14	447,680	5.17					
Financial Ratios:									
Return on average assets		25 %	0.88 %						
Return on average equity	13.)5	9.64	35.38					
Consolidated tier 1 capital to:									
Total assets (leverage)	10.	13	9.45	7.20					
Risk-adjusted assets	18.	79	18.02	4.27					
Common equity tier 1 capital ratio	18.	79	18.02	4.27					
Total capital to risk-adjusted assets	20.	05	19.28	3.97					
Net loans charged off to average loans	0.00	02	0.04893	(99.56)					
Allowance for loan losses to nonperforming loans		79 x	1.81 x	(1.12)					
Efficiency ratio*		97 %	53.75 %						
Dividend Payout ratio	42.	02	58.44	(28.10)					

Per Share information of common stock

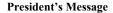
	Basic Diluted Cash		Book		Range of Stock Price					
	Ea	rnings	Earnings	Dividend		Value		High		Low
2018										
First quarter	\$	0.154	\$ 0.153	\$ 0.0656	\$	4.80	\$	9.33	\$	8.25
Second quarter		0.160	0.160	0.0656		4.87		9.35		8.35
Third quarter		0.157	0.157	0.0681		4.93		9.45		8.35
Fourth quarter		0.166	0.166	0.0681		5.07		8.53		6.51
2017										
First quarter	\$	0.114	\$ 0.114	\$ 0.0656	\$	4.57	\$	8.00	\$	7.80
Second quarter		0.127	0.127	0.0656		4.66		7.75		7.58
Third quarter		0.131	0.131	0.0656		4.73		9.10		8.85
Fourth quarter		0.077	0.076	0.0656		4.76		9.30		9.15

^{*}Certain of the financial measures used in this report, such as Tax-Equivalent Net Interest Income and Tax-Equivalent Net Interest Margin, Tangible Book Value Per Share and the Efficiency Ratio, are determined by methods other than in accordance with generally accepted accounting principles ("GAAP"). A reconciliation of these measures to the closest comparable GAAP financial measures is presented herein.

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TrustCo Bank Corp NY Mission

The Mission of TrustCo Bank Corp NY is to provide an above-average return to our owners in a manner consistent with our commitment to all stakeholders of the Company and its primary subsidiary, Trustco Bank, including customers, employees, community, regulators and shareholders.





Dear fellow shareholders,

Writing this letter, I reflect on the year past and look forward to the future. I am pleased to report that the view of our company in both directions is extremely positive. Thank you for being part of our continued success.

In 2018, our company saw \$61.4 million in earnings up from \$43.1 million in 2017. This performance was the result of intense focus on TrustCo's core purpose – delivering quality banking products and services at a fair price with a particular emphasis on residential mortgage lending. This is what we do well and every person on the TrustCo team knows it. Our purpose drives everything we do and, when we truly fulfill our purpose, we improve our community one dream at a time *and* our business thrives. Thriving business permitted 2018's increase in our company's dividend. The company paid dividends of \$25.8 million in 2018 and did so while maintaining strong capital ratios.

Looking forward, I see genuine promise of even greater success. Our clear and positive mission is attractive to the up-and-coming generation of millennials who increasingly make up not only our customer base, but our most valuable asset - our workforce. Today's financial performance fuels tomorrow's success. We continue to invest in our company at all levels and our investments in systems and technology have not only improved our customer experience, but position us to sustain our corporate purpose with efficiency and technological ease in an ever-evolving banking market.

Another source of insight and direction comes from our ongoing engagement with our shareholders. We share information about what we are doing and how we are doing it and we listen to what is important to you and the advice that you offer – particularly on matters of governance. We continuously assess the state of our corporate affairs and never hesitate to embrace improvements in areas such as diversity, transparency, accountability, and responsibility.

In 2018 we enhanced the ranks of our senior executive management team with the promotion of Michael Ozimek, our Chief Financial Officer, and Kevin Curley, our head of Branch Administration and Operations, to Executive Vice President. These promotions, and the mutual commitments that they represent, greatly enhance long-term shareholder value by ensuring the availability of top-tier talent well into the future. Also in 2018, our ranks were diminished by the untimely passing of our Vice President of Investor Relations, Kevin Timmons. His wisdom, insight, and warm personality are sorely missed.

The bar of achievement has been set high, but our team is more than ready and able to do whatever needs to be done in 2019 and beyond. We are aware that the road ahead is not without challenges, but we face that road with eagerness and enthusiasm. We will strive for the ever-more efficient accomplishment of our corporate purpose and the rewards that accompany such success.

Yours sincerely,

Robert J. McCormick

Chairman, President, and Chief Executive Officer

TrustCo Bank Corp NY



MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The financial review which follows will focus on the factors affecting the financial condition and results of operations of TrustCo during 2018 and, in summary form, the two preceding years. Unless otherwise indicated, net interest income and net interest margin are presented in this discussion on a taxable equivalent basis. Balances discussed are daily averages unless otherwise described. The consolidated financial statements and related notes and the quarterly reports to shareholders for 2018 should be read in conjunction with this review. Reclassifications of prior year data are made where necessary to conform to the current year's presentation.

TrustCo made significant progress in 2018 despite a challenging operating environment and mixed economic conditions. Among the key results for 2018, in management's view:

- Net income after taxes increased 42.4% in 2018 versus 2017;
- Period-end loans were up \$238 million for 2018 compared to the prior year;
- Period-end core deposits were up \$101 million for 2018 compared to the prior year;
- Nonperforming assets declined \$960 thousand or 3.5% to \$26.7 million from year-end 2017 to year-end 2018;
- Net interest margin improved 11 basis points to 3.33% in 2018 versus 2017;
- At 53.97%, the efficiency ratio remained substantially better than peer-group levels (see Non-GAAP Financial Measures Reconciliation), and;
- The regulatory capital levels of both the Company and the Bank improved at December 31, 2018 relative to the prior year, and the Bank continues to meet the
 definition of "well capitalized" for regulatory purposes.

Management believes that the Company was able to achieve these accomplishments, despite a continued mixed economy and increased regulatory expectations, by executing its long term plan focused on traditional lending criteria and balance sheet management. Achievement of specific business goals such as the continued expansion of loans and deposits, along with tight control of operating expenses and manageable levels of nonperforming assets, is fundamental to the long term success of the Company as a whole.

Return on average equity was 13.05% in 2018 compared to 9.64% in 2017, while return on average assets was 1.25% in 2018 as compared to 0.88% in 2017.

The economic and business environment generally improved during 2018 but remains mixed with various regions of the nation experiencing uneven growth or change during the year. Real gross domestic product ("GDP") increased at an annual rate of 3.4% during the third quarter of 2018, the latest available information, compared to 2017 and 2016 when GDP increased by 2.2% and 1.5% respectively. The annual growth rate for GDP remains below the range exhibited during the robust growth periods experienced during the 1980's and 1990's. Equity markets did not fare well during 2018 due to a number of factors including ongoing trade discussions, rising interest rates and concern relative to the length of the economic recovery and the potential for an upcoming recession. The Dow Jones Industrial Average was down 3.5% during 2018 and the S&P 500 was also down 4.4% for 2018. United States Treasuries saw significant flattening of the yield curve during 2018 with the shorter term maturities increasing in yield more significantly than the yield increases on the longer term maturities. Beginning 2018 the yield on the 2 year Treasury bond was 1.92% and increased 56 basis points during the year to close 2018 at 2.48% whereas the 10 year Treasury bond began 2018 at 2.46% and closed the year up 23 basis points to 2.69% at year-end. These rate changes have a significant implication to the broader economic cycle and reflect the Federal Reserve Board's desire to increase shorter term rates to help offset some of the above target growth that has occurred in the last several quarters.

The outlook for the United States economy is complicated by political uncertainties domestically and internationally which has led to trade disruptions and anticipation of economic slowdowns. Corporate profits for 2018 have generally been enhanced as a result of the 2017 Tax Act which reduced the overall corporate federal tax rates on business operating in the United States. These reduced tax rates will continue into 2019 but will not, on their own, contribute to an increase in net profits for 2019 over 2018. Growth in business operations and expansion of corporate activities will be necessary for broad range increases in revenues and profits.

Employment increased and unemployment decreased during 2018 as workers reentered the workforce and companies expanded operations to accommodate economic growth and demand for their products and services. The unemployment rate has reached historical lows which is generally interpreted to mean that the economy has reached full employment which in turn historically has been an indicator of increased wage pressure and increased inflation. The Federal Reserve Board action to increase short term rates is to help offset the impact of these inflationary factors in the economy.

Generally a steady increase in economic activities is viewed as a positive for the banking and finance industries as economic growth creates additional demand for company goods and services which in turn result in increased revenues and profits. TrustCo like most other banking organizations prices many of their liabilities (deposits and short term debt) off of the shorter end of the Treasury maturity curve which in 2018 has been increasing faster than the longer end of the Treasury maturity curve. Continuation of this trend could lead to pressure on net margins which in turn may cause management to take action with respect to excess liquidity.

Management believes that TrustCo's long term focus on traditional banking services has enabled the Company to avoid significant impact from asset quality problems, and the Company's strong liquidity and solid capital positions have allowed the Company to continue to conduct business in a manner consistent with past practices. While we continue to adhere to prudent underwriting standards, as a lender, we may be adversely impacted by general economic weaknesses and by a downturn in the housing markets in the areas we serve.

Regulatory Agreement

Trustco Bank entered into an agreement with its primary regulator, the Office of the Comptroller of the Currency (OCC), on July 21, 2015. The agreement calls for the Bank to take various actions in areas such as compliance, corporate governance, audit, capital planning including dividends, and strategic planning, among others. The agreement followed the completion of the OCC's regularly scheduled exam of the Bank. Since the completion of the examination, the Bank has been working to address the issues raised. The Bank's Board of Directors and management remain committed to fully addressing all provisions of the agreement. On February 14, 2018, the Office of the Comptroller of the Currency (OCC) notified Trustco Bank that it had terminated the July 21, 2015 agreement between the OCC and the Bank effective February 7, 2018. The agreement had required the Bank to take various actions in areas such as compliance, corporate governance, audit, capital planning including dividends, and strategic planning, among others.

Tax Cuts and Jobs Act

On December 22, 2017 the Tax Cuts and Jobs Act (the "Tax Act") was signed into law. The Tax Act makes broad and complex changes to the U.S. tax code that affected our 2017 results and that will affect future periods. Among the Tax Act's changes is a reduction of the statutory corporate tax rate from 35% to 21%. The lower tax rate will have a significant beneficial impact on the Company's results going forward, but also resulted in the revaluation of net deferred tax assets on our balance sheet as of December 31, 2017, based on the lower tax rate. Deferred income taxes result from temporary differences between the tax basis of assets and liabilities and their reported amounts in the financial statements. Deferred tax assets and liabilities are measured using enacted rates expected to apply to taxable income in years in which those temporary differences are expected to be recovered or settled. Deferred tax assets and liabilities are adjusted through income tax expense as changes in tax laws are enacted. The rate reduction was effective January 1, 2018. Included in results for the fourth quarter and full year 2017 is a reduction in the value of net deferred tax assets of \$5.1 million, which was recorded as additional income tax expense for the quarter ended December 31, 2017. This charge had a negative impact on reported net income, earnings per share, return on average equity and return on average assets for the quarter and year ended December 31, 2017.

Overview

2018 results were marked by continued growth in the Company's loan portfolio. The loan portfolio grew to a total of \$3.87 billion, an increase of \$238 million or 6.5% over the 2017 year-end balance. Deposits ended 2018 at \$4.27 billion, up from \$4.17 billion the prior year-end. The year-over-year increases in loans reflect the success the Company has had in attracting customers to the Bank. Management believes that TrustCo's success is predicated on providing core banking services to a wider number of customers and continuing to provide added services to existing customers where possible. Growing the customer base should contribute to continued growth of loans and deposits, as well as net interest income and non-interest income.

TrustCo recorded net income of \$61.4 million or \$0.636 of diluted earnings per share for the year ended December 31, 2018, compared to \$43.1 million or \$0.448 of diluted earnings per share for the year ended December 31, 2017. Net income before taxes was \$79.7 million in 2018 compared to \$76.7 million in 2017.

During 2018, the following had a significant effect on net income:

- an increase of \$6.3 million in net interest income from 2017 to 2018 as a result of a combination of 0.67% growth in average interest earning assets and an 11 basis point increase in the net interest margin to 3.33%;
- a decrease of \$600 thousand in the provision for loan losses to \$1.4 million in 2018;

- an increase of \$3.7 million in total non-interest expense, as compared to 2017, and;
- an decrease of \$15.4 million in income tax expense from \$33.6 million in 2017 to \$18.2 million in 2018.

TrustCo performed well in comparison to its peers with respect to a number of key performance ratios during 2018 and 2017, including:

- return on average equity of 13.05% for 2018 and 9.64% for 2017, compared to medians of 10.43% in 2018 and 8.37% in 2017 for a peer group comprised of all publicly traded banks and thrifts tracked by S&P Global Market Intelligence Financial with assets of \$2 billion to \$10 billion, and
- an efficiency ratio, as calculated by S&P Global Market Intelligence, of 53.97% for 2018 and 53.72% for 2017, compared to the peer group medians of 58.49% in 2018 and 58.62% in 2017. Note that the S&P calculation differs slightly from our calculation.

During 2018, TrustCo's results were positively affected by the growth of deposits, strong loan growth and a shift in asset mix. Despite the changes in the interest rate environment during 2018, the Company was able to continue to attract deposits at relatively low yields. On average for 2018, non-maturity deposits were 73.7% of total deposits, consistent with 2017. Overall, the cost of interest bearing liabilities increased 15 basis points to 0.51% in 2018 as compared to 2017. Average loan balances increased 6.6% from 2017 to 2018, while the total of short-term investments, available for sale securities and held to maturity securities decreased 11.3%, resulting in average net loans growing to 77.7% of average earning assets in 2018 from 73.4% in 2017. Given that loan yields were approximately 135 basis points above the yield on the total of short-term investments and securities, this shift, combined with the growth of average earning assets, the increase in the Federal funds target rate and the decline in funding cost, contributed to the \$6.3 million increase in net interest income from 2017 to 2018. The Company has traditionally maintained a high liquidity position, and taken a conservative stance in its investment portfolio through the use of relatively short-term securities. The changing rate environment in 2018 resulted in maturing and called securities being reinvested, as noted, in loans as well as into a combination of Federal funds and bonds. The Federal Reserve Board's ("FRB") continued accommodative monetary policy, despite the increases in the target Federal funds range, along with modest economic growth domestically and low rates in other nations, were key drivers of the rate environment during 2018. The 2007-2008 easing of monetary policy by the FRB included a particularly sharp reduction in the Federal Funds rate in 2008, from the 4.25% rate at the beginning of the year to a target range of 0.00% to 0.25% by year-end. That target range was in place throughout most of 2016. The FRB increased the target range several times beginning in December of 2016, with the target range now at 2.25% to 2.55%. The FRB Federal Open Market Committee ("FOMC" or "Committee") affirmed in its December 19, 2018 press release that "Information received since the Federal Open Market Committee met in November indicates that the labor market has continued to strengthen and that economic activity has been rising at a strong rate. Job gains have been strong, on average, in recent months, and the unemployment rate has remained low. Household spending has continued to grow strongly, while growth of business fixed investment has moderated from its rapid pace earlier in the year. On a 12-month basis, both overall inflation and inflation for items other than food and energy remain near 2 percent. Indicators of longer-term inflation expectations are little changed, on balance. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee judges that some further gradual increases in the target range for the federal funds rate will be consistent with sustained expansion of economic activity, strong labor market conditions, and inflation near the Committee's symmetric 2 percent objective over the medium term. The Committee judges that risks to the economic outlook are roughly balanced, but will continue to monitor global economic and financial developments and assess their implications for the economic outlook." Based on the above the committee raised the target range from 2.25% to 2.50% in December.

As discussed previously, some market interest rates moved significantly during the course of 2018, with shorter term rates rising sharply but longer term rates remaining roughly flat versus year-end 2017. Overall, trends in market rates caused a flattening of the yield curve, on average, during the year. The average daily spread between the ten year Treasury and the two year Treasury was 38 basis points in 2018, down from an average of 93 basis points in 2017 and 102 basis points in 2016. The spread narrowed more significantly later in the year, ending 2018 at 21 basis points. A more positive slope in the yield curve is generally beneficial for the Company's earnings derived from its core mix of loans and deposits.

The tables below illustrate the range of key Treasury bond interest rates during 2017 and 2018.

	3 Month T Bill (BEY) Yield(%)	2 Year T Note Yield(%)	5 Year T Note Yield(%)	10 Year T Note Yield(%)	10 Year - 2 Year Spread(%)
<u>2018</u>	1 iciu(/0)	1 icia(/0)	1 icia(/0)	1 iciu(/0)	Spreau(70)
	1 44	1.02	2.25	2.46	0.51
Beginning of Year	1.44	1.92	2.25	2.46	0.51
Peak	2.45	2.98	3.09	3.24	0.78
Trough	1.39	1.94	2.25	2.44	0.11
End of Year	2.45	2.48	2.51	2.69	0.21
Average	1.97	2.53	2.75	2.91	0.38
Median	1.95	2.56	2.76	2.90	0.33
<u>2017</u>					
Beginning of Year	0.51	1.20	1.93	2.45	1.25
Peak	1.47	1.92	2.26	2.62	1.30
Trough	0.50	1.12	1.63	2.05	0.51
End of Year	1.39	1.89	2.20	2.40	0.51
Average	0.95	1.40	1.91	2.33	0.93
Median	1.01	1.34	1.90	2.34	0.91

Source: S&P Global Market Intelligence

In addition to changes in interest rates, economic conditions have a significant impact on the allowance for loan losses. The decrease in the provision for loan losses from \$2.0 million in 2017 to \$1.4 million in 2018 positively affected net income. Net charge-offs decreased from \$1.7 million in 2017 to \$804 thousand in 2018. Total nonperforming loans increased \$609 thousand from 2017. Details on nonperforming loans and net charge-offs are included in the notes to the financial statements. The decline in the provision for loan losses is primarily a reflection of the improvement in the performance of the loan portfolio and economic conditions.

TrustCo focuses on providing high quality service to the communities served by its branch-banking network. The financial results for the Company are influenced by economic events that affect those communities, as well as national economic trends, primarily interest rates, affecting the entire banking industry.

The Company remains focused on building its customer relationships, deposits and loans throughout its branch network, with a particular emphasis on the branches added recently added to our "network."

The Company continually looks for opportunities to open new offices each year by filling in or extending existing markets. The Bank has continued to expand the franchise to areas experiencing economic growth, specifically in central Florida and the downstate New York region. The Company has experienced significant growth in both markets as measured by deposit balances, and to a lesser extent, by loan balances. All new branches have the same products and features found at other Trustco Bank locations. With a combination of competitive rates, excellent service and convenient locations, management believes that the new branches will continue to attract deposit and loan customers and be a welcome addition to these communities. The branches opened since the expansion program began have continued to add to the Company's customer base. As expected, some branches have grown more rapidly than others. Generally, new bank branches continue to grow for years after being opened, although there is no specific time frame that could be characterized as typical. The expansion program has contributed significantly to the growth of both deposits and loans, as well as to non-interest income and non-interest expense. The higher costs are offset by net interest income earned on core loans and deposits generated by these branches, as well as associated non-interest income. Revenue growth is expected to continue, as these branches typically continue to add new customers and increase penetration with existing customers over time.

Asset/Liability Management

In managing its balance sheet, TrustCo utilizes funding and capital sources within sound credit, investment, interest rate, and liquidity risk guidelines established by management and approved by the Board of Directors. Loans and securities (including Federal Funds sold and other short-term investments) are the Company's primary earning assets. Average interest earning assets were 98.4% and 98.3% of average total assets for 2018 and for 2017 respectively.

TrustCo, through its management of liabilities, attempts to provide stable and flexible sources of funding within established liquidity and interest rate risk guidelines. This is accomplished through core deposit banking products offered within the markets served by the Company. TrustCo does not actively seek to attract out-of-area deposits or so-called "hot money," but rather focuses on core relationships with both depositors and borrowers.

TrustCo's objectives in managing its balance sheet are to limit the sensitivity of net interest income to actual or potential changes in interest rates and to enhance profitability through strategies that should provide sufficient reward for predicted and controlled risk. The Company is deliberate in its efforts to maintain adequate liquidity under prevailing and projected economic conditions and to maintain an efficient and appropriate mix of core deposit relationships. The Company relies on traditional banking investment instruments and its large base of core deposits to help in asset/liability management. Predicting the impact of changing rates on the Company's net interest income and net fair value of its balance sheet is complex and subject to uncertainty for a number of reasons. For example, in making a general assumption that rates will rise, a myriad of other assumptions regarding whether the slope of the yield curve remains the same or changes, whether the spreads of various loans, deposits and investments remain unchanged, widen or narrow and what changes occur in customer behavior all need to be made. The Company routinely models various rate changes and monitors basis changes that may be incorporated into that modeling.

Interest Rates

TrustCo competes with other financial service providers based upon many factors including quality of service, convenience of operations and rates paid on deposits and charged on loans. The absolute level of interest rates, changes in rates and customers' expectations with respect to the direction of interest rates have a significant impact on the volume of loan and deposit originations in any particular year.

Interest rates have a significant impact on the operations and financial results of all financial services companies. One of the most important interest rates used to control national economic policy is the "Federal Funds" rate. This is the interest rate utilized within the banking system for overnight borrowings for institutions with the highest credit rating. As noted previously, during 2007-2008 the FRB aggressively reduced the Federal Funds rate, including a decrease from 4.25% at the beginning of 2008 to a target range of 0.00% to 0.25% by the end of 2008. The target range remained at that level until December 2016 when the range was increased to 0.25% to 0.50%. Subsequent increases have resulted in the current range of 2.25% to 2.50%.

The yield on the ten-year Treasury bond increased by 23 basis points from 2.46% at the beginning of 2018 to the year-end level of 2.69%, despite the increases in short term rates. The rate on the ten year Treasury bond and other long-term interest rates have a significant influence on the rates offered for new residential real estate loans. These changes in interest rates have an effect on the Company relative to the interest income on loans, securities, and Federal Funds sold and on other short-term instruments as well as the interest expense on deposits and borrowings. Residential real estate loans and longer-term investments are most affected by the changes in longer term market interest rates such as the ten-year Treasury. The Federal Funds sold portfolio and other short-term investments are affected primarily by changes in the Federal Funds target rate. Deposit interest rates are most affected by short term market interest rates. Also, changes in interest rates have an effect on the recorded balance of the securities available for sale portfolio, which are recorded at fair value. Generally, as market interest rates increase, the fair value of the securities will decrease and the reverse is also generally applicable. Interest rates on new residential real estate loan originations are also influenced by the rates established by secondary market participants such as Freddie Mac and Fannie Mae. Because TrustCo is a portfolio lender and does not sell loans into the secondary market, the Company establishes rates that management determines are appropriate in light of the long-term nature of residential real estate loans while remaining competitive with the secondary market rates. Higher market interest rates also generally increase the value of retail deposits.

While the increase in the Federal Funds target range had a beneficial impact on earnings on the Company's cash position, the net effect of market changes in interest rates during 2018 was that yields earned on both the investment portfolios and loans remained quite low in 2018 relative to historic levels, while deposit costs were roughly stable.

Earning Assets

Average earning assets during 2018 were \$4.82 billion, which was an increase of \$31.7 million from 2017. This increase was the result of growth in the average balance of net loans of \$231.2 million, offset by decreases of \$116.5 million in Federal Funds sold and other short-term investments, \$13.1 million in held-to-maturity securities and \$69.5 million in securities available for sale between 2017 and 2018. The increase in the loan portfolio is the result of a significant increase in residential mortgage loans, which more than offset decreases in each of the other loan categories. The increase in real estate loans is a result of a strategic focus on growth of this product throughout the Trustco Bank branch network through an effective marketing campaign and competitive rates and closing costs.

Total average assets were \$4.90 billion for 2018 and \$4.88 billion for 2017.

The table "Mix of Average Earning Assets" shows how the mix of the earning assets has changed over the last three years. While the growth in earning assets is critical to improved profitability, changes in the mix also have a significant impact on income levels, as discussed below.

MIX OF AVERAGE EARNING ASSETS

(dollars in thousands)				2018 vs.	2017 vs.		mponents of Earning Ass	
	2018	2017	2016	2017	2016	2018	2017	2016
Loans, net	\$3,746,082	3,514,900	3,348,324	231,182	166,576	77.7%	73.4	71.3
Securities available for sale (1):								
U.S. government sponsored enterprises	155,381	139,652	101,242	15,729	38,410	3.2	2.9	2.2
State and political subdivisions	414	682	991	(268)	(309)	_	-	-
Mortgage-backed securities and collateralized								
mortgage obligations residential	294,732	350,256	410,646	(55,524)	(60,390)	6.1	7.3	8.7
Corporate bonds	30,310	41,946	17,088	(11,636)	24,858	0.6	0.9	0.4
Small Business Administration-guaranteed								
participation securities	63,430	73,996	86,407	(10,566)	(12,411)	1.3	1.5	1.8
Mortgage-backed securities and collateralized								
mortgage obligations-commercial	2,769	9,963	10,284	(7,194)	(321)	0.1	0.2	0.2
Other	685	685	683	-	2	-	-	
Total securities available for sale	547,721	617,180	627,341	(69,459)	(10,161)	11.3	12.9	13.4
Held-to-maturity securities:								
Mortgage-backed securities and collateralized								
mortgage obligations	24,801	31,266	40,830	(6,465)	(9,564)	0.5	0.7	0.9
Corporate bonds	-	6,663	10,145	(6,663)	(3,482)	=	0.1	0.2
Total held-to-maturity securities	24,801	37,929	50,975	(13,128)	(13,046)	0.5	0.8	1.1
Federal Reserve Bank and Federal Home Loan Bank								
stock	8,907	9,295	9,554	(388)	(259)	0.2	0.2	0.2
Federal funds sold and other short-term investments	495,066	611,586	662,436	(116,520)	(50,850)	10.3	12.8	14.1
Total earning assets	\$4,822,577	4,790,890	4,698,630	31,687	92,260	100.0%	100.0	100.0

⁽¹⁾ The average balances of securities available for sale are presented using amortized cost for these securities.

Loans

In 2018, the Company experienced another year of significant loan growth. The \$237.7 million increase in the Company's gross loan portfolio from December 31, 2017 to December 31, 2018 was due to higher residential mortgage balances, which offset lower balances in other loan categories. Average loans increased \$231.2 million during 2018 to \$3.75 billion. Interest income on the loan portfolio increased to \$158.3 million in 2018 from \$148.2 million in 2017. The average yield increased 1 basis point to 4.23% in 2018 compared to 2017.

LOAN PORTFOLIO

(dollars in thousands)	As of December 31,								
	201	8	201	7	2016				
	Amount	Percent	Amount	Percent	Amount	Percent			
Commercial	\$ 183,598	4.7%	\$ 176,385	4.9%	\$ 182,653	5.3%			
Real estate - construction	26,717	0.7	30,946	0.9	24,826	0.7			
Real estate - mortgage	3,362,539	86.8	3,111,397	85.6	2,879,448	83.9			
Home equity lines of credit	289,540	7.5	308,916	8.5	334,841	9.8			
Installment loans	11,702	0.3	8,763	0.2	8,818	0.3			
Total loans	3,874,096	100.0%	3,636,407	100.0%	3,430,586	100.0%			
Less: Allowance for loan losses	44,766		44,170		43,890				
Net loans (1)	\$ 3,829,330		\$ 3,592,237		\$ 3,386,696				

		Average Balances									
	2018 20			7	2016			2015		4	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	
Commercial	\$ 175,814	4.7%	\$ 175,596	5.0%	\$ 186,800	5.6%	\$ 195,265	6.0%	\$ 201,317	6.7%	
Real estate - construction	26,717	0.7	26,616	0.8	23,645	0.7	29,101	0.9	35,109	1.2	
Real estate - mortgage	3,236,631	86.5	2,985,870	84.9	2,779,451	83.0	2,647,265	81.8	2,428,383	80.6	
Home equity lines of credit	297,678	7.9	318,660	9.1	350,004	10.5	354,718	11.0	343,264	11.4	
Installment loans	9,242	0.2	8,158	0.2	8,424	0.3	8,457	0.3	6,083	0.2	
Total loans	3,746,082	100.0%	3,514,900	100.0%	3,348,324	100.0%	3,234,806	100.0%	3,014,156	100.0%	
Less: Allowance for loan										_	
losses	44,651		44,319		44,718		46,023		47,409		
Net loans (1)	\$3,701,431		\$3,470,581		\$3,303,606		\$3,188,783		\$2,966,747		

(1) Presented net of deferred direct loan origination fees and costs.

Through marketing, pricing and a customer-friendly service delivery network, TrustCo has attempted to distinguish itself from other mortgage lenders by highlighting the uniqueness of its loan products. Specifically, low closing costs, no escrow or private mortgage insurance, quick loan decisions and fast closings were identified and marketed. The fact that the Company holds mortgages in its loan portfolio rather than selling them into secondary markets was also highlighted. The average balance of residential real estate mortgage loans was approximately \$3.28 billion in 2018 and approximately \$3.00 billion in 2017. Income on real estate loans increased to \$133.9 million in 2018 from \$125.0 million in 2017. The yield on the portfolio decreased from 4.16% in 2017 to 4.12% in 2018 due to changes in retail rates in the marketplace. The vast majority of TrustCo's real estate loans are secured by properties within the Bank's market area.

TrustCo does not make subprime loans or purchase investments collateralized by subprime loans. A loan may be considered subprime for a number of reasons, but effectively subprime loans are loans where the certainty of repayment of principal and interest is lower than for a traditional prime loan due to the structure of the loan itself, the credit worthiness of the borrower, the underwriting standards of the lender or some combination of these. For instance, adjustable loans underwritten at initial low "teaser" rates instead of the fully indexed rate and loans to borrowers with poor payment history would generally be classified as subprime. Other than for its small credit card portfolio, TrustCo underwrites its loan originations in a traditional manner, focusing on key factors that have proven to result in good credit decisions, rather than relying on automated systems or basing decisions primarily on one factor, such as a borrower's credit score.

Average commercial loans of \$188.4 million in 2018 increased by \$3.0 million from \$185.4 million in 2017. Average commercial loans included \$12.5 million and \$9.8 million of commercial real estate construction loans in 2018 and 2017, respectively. The average yield on the commercial loan portfolio increased to 5.26% for 2018 from 5.25% in 2017, which, coupled with the higher average balance resulted in interest income on commercial loans of \$9.9 million in 2018 and \$9.7 million in 2017.

TrustCo's commercial lending activities are focused on balancing the Company's commitment to meeting the credit needs of businesses in its market areas with the necessity of managing its credit risk. In accordance with these goals, the Company has consistently emphasized the origination of loans within its market area. TrustCo's commercial loan portfolio contains no foreign loans, nor does it contain any significant concentrations of credit to any single borrower or industry. The Capital Region commercial loan portfolio reflects the diversity of businesses found in the market area, including light manufacturing, retail, service, and real estate-related businesses. Commercial loans made in the downstate New York market area and in the central Florida market area also reflect the businesses in those areas, with a focus on real estate.

TrustCo strives to maintain strong asset quality in all segments of its loan portfolio, especially commercial loans. There is significant competition for commercial loans continues to be intense in the Bank's market regions.

TrustCo has a strong position in the home equity credit line product in its market area. During 2018, the average balance of home equity credit lines was \$297.7 million, a decrease from \$318.7 million in 2017. Trustco Bank competes with both regional and national concerns for these lines of credit and faces stiff competition with respect to interest rates, closing costs, and customer service for these loans. TrustCo continuously reviews changes made by competitors with respect to the home equity credit line product and adjusts its offerings to remain competitive while meeting evolving needs. Changes in consumer behavior have resulted in this product being somewhat less popular in recent years. TrustCo's average yield on this portfolio was 4.56% for 2018 and 3.98% in 2017. This resulted in interest income on home equity credit lines of \$13.6 million in 2018, compared to \$12.7 million in 2017.

MATURITIES AND SENSITIVITIES OF LOANS TO CHANGE IN INTEREST RATES

(dollars in thousands)	December 31, 2018							
			After 1 Year					
		In 1 Year	But Within	After				
		or Less	5 Years	5 Years	Total			
Commercial	\$	42,045	51,732	89,821	183,598			
Real estate construction		26,717	-	-	26,717			
Total		68,762	51,732	89,821	210,315			
Predetermined rates		28,728	51,732	89,821	170,281			
Floating rates		40,034	-	-	40,034			
Total	\$	68,762	51,732	89,821	210,315			

At December 31, 2018 and 2017, the Company had approximately \$26.7 million and \$30.9 million of real estate construction loans, respectively. Of the \$26.7 million in real estate construction loans at December 31, 2018, approximately \$14.2 million were secured by first mortgages to residential borrowers with the remaining \$12.5 million were loans to commercial borrowers for residential construction projects. Of the \$30.9 million in real estate construction loans at December 31, 2017, approximately \$24.8 million were secured by first mortgages to residential borrowers while approximately \$16.3 million were to commercial borrowers for residential construction projects. The vast majority of the Company's construction loans are in the Company's New York market.

INVESTMENT SECURITIES

(dollars in thousands)		As of December 31,									
		2013	8	201	7	201	6				
	A	mortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value				
Securities available for sale:											
U. S. government sponsored enterprises	\$	154,868	152,160	139,890	137,851	119,887	117,266				
State and political subdivisions		168	173	515	525	873	886				
Mortgage backed securities and collateralized											
mortgage obligations-residential		271,386	262,032	320,614	315,983	378,068	372,308				
Corporate bonds		30,048	29,938	40,270	40,162	40,956	40,705				
Small Business Adminstration-guaranteed											
participation securities		58,376	56,475	68,921	67,059	81,026	78,499				
Mortgage backed securities and collateralized											
mortgage obligations-commercial		-	-	9,810	9,700	10,130	10,011				
Other		685	685	685	685	685	685				
Total securities available for sale		515,531	501,463	580,705	571,965	631,625	620,360				
Held to maturity securities:											
Mortgage backed securities and collateralized											
mortgage obligations-residential		22,501	22,924	27,551	28,701	35,500	37,236				
Corporate bonds		-	-	-	-	9,990	10,290				
Total held to maturity securities		22,501	22,924	27,551	28,701	45,490	47,526				
Total investment securities	\$	538,032	524,387	608,256	600,666	677,115	667,886				

Securities available for sale: The portfolio of securities available for sale is designed to provide a stable source of interest income and liquidity. The portfolio is also managed by the Company to take advantage of changes in interest rates and is particularly important in providing greater flexibility in the current low interest rate environment. The securities available for sale portfolio is managed under a policy detailing the types and characteristics acceptable in the portfolio. Mortgage backed securities and collateralized mortgage obligations held in the portfolio include only pass-throughs issued by United States government agencies or sponsored enterprises.

Holdings of various types of securities may vary from year-to-year depending on management's assessment of relative risk and reward, and also due to timing issues of call, maturities, prepayments and purchases. Holdings of both municipal and corporate securities are subject to additional monitoring requirements under current regulations, adding to the costs of owning those securities.

Proceeds from sales, calls and maturities of securities available for sale have been invested in higher yielding assets, such as loans, or temporarily held in Federal Funds sold and other short term investments until deployed to fund future loan growth or future investment opportunities.

The designation of securities as "available for sale" is made at the time of purchase, based upon management's intent and ability to hold the securities for an indefinite period of time. These securities are available for sale in response to changes in market interest rates, related changes in prepayment risk, needs for liquidity, or changes in the availability of and yield on alternative investments. At December 31, 2018 some securities in this portfolio had fair values that were less than the amortized cost due to changes in interest rates and market conditions and not related to the credit condition of the issuers. At December 31, 2018, the Company did not intend to sell, and it is not likely that the Company will be required to sell these securities before market recovery. Accordingly, at December 31, 2018 the Company did not consider any of the unrealized losses to be other than temporary.

At December 31, 2018, the carrying value of securities available for sale amounted to \$501.5 million, compared to \$572.0 million at year end 2017. For 2018, the average balance of securities available for sale was \$547.7 million with an average yield of 2.16%, compared to an average balance in 2017 of \$617.2 million with an average yield of 1.95%. The taxable equivalent income earned on the securities available for sale portfolio in 2017 was \$12.1 million, compared to \$11.8 million earned in 2018.

Securities available for sale are recorded at their fair value, with any unrealized gains or losses, net of taxes, recognized as a component of shareholders' equity. Average balances of securities available for sale are stated at amortized cost. At December 31, 2018, the fair value of TrustCo's portfolio of securities available for sale carried gross unrealized gains of approximately \$14.1 million. At December 31, 2017, the fair value of the company's portfolio of securities available for sale carried gross unrealized gains of approximately \$121 thousand and gross unrealized losses of approximately \$8.9 million. As previously noted, in both periods, unrealized losses were related to market interest rate levels and were not credit related.

Held to Maturity Securities: At December 31, 2018 the Company held \$22.5 million of held to maturity securities, compared to \$27.6 million at December 31, 2017. For 2018, the average balance of held to maturity securities was \$24.8 million, compared to \$37.9 million in 2017. Similar to securities available for sale, cash flow from these securities has been reinvested in higher yielding assets, such as loans, or temporarily held in Federal Funds sold and other short term investments to fund future loan growth or future investment opportunities. The average yield on held to maturity securities decreased from 4.11% in 2017 to 3.88% in 2018 as the mix within the portfolio changed due primarily to paydowns and prepayments on the mortgage-backed securities held in the portfolio. The maturity of a corporate bond with a relatively high yield also impacted the overall yield on this portfolio in 2018. Interest income on held to maturity securities declined from \$1.6 million in 2017 to \$962 thousand in 2018, reflecting the decline in average balances. Held to maturity securities are recorded at amortized cost. The fair value of these securities as of December 31, 2018 was \$22.9 million.

The designation of securities as "held to maturity" is made at the time of purchase, based upon management's intent and ability to hold the securities until final maturity. At December 31, 2018 there were \$154 thousand in unrecognized losses on securities in this portfolio.

Securities Gains: During 2018 and 2017, TrustCo did not recognize any net gains from securities transactions, compared to net gains of \$668 thousand in 2016. There were no sales or transfers of held to maturity securities in 2018, 2017 and 2016.

TrustCo has not invested in any exotic investment products such as interest rate swaps, forward placement contracts, or other instruments commonly referred to as derivatives. In addition, the Company has not invested in securities backed by subprime mortgages or in collateralized debt obligations (CDOs). By actively managing a portfolio of high quality securities, TrustCo believes it can meet the objectives of asset/liability management and liquidity, while at the same time producing a reasonably predictable earnings stream.

SECURITIES PORTFOLIO MATURITY DISTRIBUTION AND YIELD

(dollars in thousands)	As of December 31, 2018								
				Maturing:					
		******	After 1	After 5					
Debt securities available for sale:		Within 1 Year	But Within 5 Years	But Within 10 Years	After 10 Years	Total			
U. S. government sponsored enterprises	Φ		174.000			154000			
Amortized cost	\$	-	154,868	-	-	154,868			
Fair Value		-	152,160	-	-	152,160			
Weighted average yield		-%	2.03	-	-	2.03			
State and political subdivisions		_							
Amortized cost	\$	8	126	34	-	168			
Fair Value		8	131	34	-	173			
Weighted average yield		5.44%	5.05	5.26	-	5.11			
Mortgage backed securities and collateralized mortgage obligations-residential									
Amortized cost	\$	1,148	72,739	191,576	5,923	271,386			
Fair Value		1,139	70,166	184,979	5,748	262,032			
Weighted average yield		1.99%	2.25	2.44	3.12	2.41			
Corporate bonds									
Amortized cost	\$	10,007	20,041	-	-	30,048			
Fair Value		9,995	19,943	-	-	29,938			
Weighted average yield		1.45%	3.30	-	-	2.68			
Small Business Administration-guaranteed participation securities									
Amortized cost	\$	-	58,376	-	-	58,376			
Fair Value		-	56,475	-	-	56,475			
Weighted average yield		-%	2.05	_	_	2.05			
Mortgage backed securities and collateralized mortgage obligations-commercial									
Amortized cost	\$	-	-	-	-	_			
Fair Value	Ψ	_	_	_	_	_			
Weighted average yield		-%	_	_	_	_			
Other		, 0							
Amortized cost	\$	50	600	35	_	685			
Fair Value	Ψ	50	600	35	_	685			
Weighted average yield		1.91%	3.44	0.20	_	3.15			
Total securities available for sale	_	1.7170	0.11	0.20		0.13			
Amortized cost	ø	11 212	207.750	191,645	5.022	E1E E21			
	\$	11,213	306,750	,	5,923	515,531			
Fair Value		11,192	299,475	185,048	5,748	501,463			
Weighted average yield	_	1.51%	2.17	2.44	3	2.27			
Held to maturity securities:									
U. S. government sponsored enterprises									
Amortized cost	\$	-	_	-	-	_			
Fair Value	Ψ	_	_	_	_	_			
Weighted average yield		-%	_	_	_	_			
Mortgage backed securities and collateralized mortgage obligations-residential		70							
Amortized cost	\$	_	16,713	5,788	_	22,501			
Fair Value	Φ	<u>-</u>	16,906	6,018	_	22,924			
Weighted average yield		-%	3.68	5.06		4.03			
Corporate bonds		-70	3.08	3.00	-	4.03			
	Φ								
Amortized cost	\$	-	-	=	-	-			
Fair Value		-	-	-	-	-			
Weighted average yield		-%	-	-	-	-			
Total held to maturity securities									
Amortized cost	\$	-	16,713	5,788	-	22,501			
Fair Value Weighted average yield		- -%	16,906 3.68	6,018 5.06	-	22,924 4.03			

Weighted average yields have not been adjusted for any tax-equivalent factor.

Maturity and call dates of securities: Many of the securities in the Company's portfolios have a call date in addition to the stated maturity date. Call dates allow the issuer to redeem the bonds prior to maturity at specified dates and at predetermined prices. Normally, securities are redeemed at the call date when the issuer can reissue the security at a lower interest rate. Therefore, for cash flow, liquidity and interest rate management purposes, it is important to monitor both maturity dates and call dates. The level of calls in 2018 was lower than the 2017 level, as rising interest rates reduce the probability of calls. The probability of future calls will change depending on market interest rate levels. The tables labeled "Securities Portfolio Maturity and Call Date Distribution," show the distribution, based on both final maturity and call date of each security, broken out by the available for sale and held to maturity portfolios as of December 31, 2018. Mortgage backed securities, collateralized mortgage obligations and Small Business Administration securities are reported using an estimate of average

life. Actual maturities may differ from contractual maturities because of securities' prepayments and the right of certain issuers to call or prepay their obligations without penalty. The table, "Securities Portfolio Maturity Distribution and Yield," shows the distribution of maturities for each of the securities portfolios, based on final maturity, as well as the average yields at December 31, 2018 on each type/maturity grouping.

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SECURITIES PORTFOLIO MATURITY AND CALL DATE DISTRIBUTION

Debt securities available for sale:

(dollars in thousands)	As of December 31, 2018							
	I	Based on						
	Fin	al Maturity	Call Date					
			Fair	Amortized	Fair			
		Cost	Value	Cost	Value			
Within 1 year	\$	10,078	10,067	166,081	163,352			
1 to 5 years		175,727	172,933	126,977	123,319			
5 to 10 years		8,108	7,780	216,515	209,009			
After 10 years		321,618	310,683	5,958	5,783			
Total debt securities available for sale	\$	515,531	501,463	515,531	501,463			

Held to maturity securities:

(dollars in thousands)	As of December 31, 2018						
		Based o	on	Based on			
		Final Mat	urity	Call Date			
	A	Amortized Fair		Amortized	Fair		
		Cost	Value	Cost	Value		
1 to 5 years	\$	-	-	16,713	16,906		
5 to 10 years		1,288	1,293	5,788	6,018		
After 10 years		21,213	21,631	-	<u>-</u>		
Total held to maturity securities	\$	22,501	22,924	22,501	22,924		

Federal Funds Sold and Other Short-term Investments

During 2018, the average balance of Federal Funds sold and other short-term investments was \$495.1 million, a decrease from \$611.6 million in 2017. The average rate earned on these assets was 1.09% in 2017 and 1.87% in 2018. The increase in the average rate in 2018 was due to the increases in the Federal Funds target range that were implemented. TrustCo utilizes this category of earning assets as a means of maintaining strong liquidity. The Federal Funds sold and other short-term investments portfolio is significantly affected by changes in the target Federal Funds rate, as are virtually all short term interest-sensitive instruments.

The year-end balance of Federal Funds sold and other short term investments was \$454.5million for 2018, compared to \$568.6 million at year end 2017. While yields on investment securities with acceptable risk characteristics were insufficient to justify shifting overnight liquidity into other investment types during 2018, some funds were shifted into higher yielding loans. Management will continue to evaluate the overall level of the Federal Funds sold and other short-term investments in 2018 and will make appropriate adjustments based upon market opportunities and interest rates.

Funding Sources

TrustCo utilizes various traditional sources of funds to support its earning asset portfolio. The table, "Mix of Average Sources of Funding," presents the various categories of funds used and the corresponding average balances for each of the last three years.

Deposits: Average total deposits were approximately \$4.21 billion in 2018, compared to approximately \$4.17 billion in 2017, an increase of \$35.2 million. Changes in deposit categories (average balances 2018 versus 2017) included: demand deposits up \$13.7 million, interest-bearing checking deposits up \$53.4 million, savings down \$33.6 million, money market down \$51.0 million and time deposits up \$52.7 million. While many customers remain in one product type for many years, others may move funds between product types to maximize the yield earned or as a result of increased or decreased liquidity needs. The increase in core deposits reflects the focus on growing these lower costing funding sources by providing core banking services better, faster and cheaper than competitors. The increase in time deposits over \$250 thousand is not the result of any incentive pricing as TrustCo does not offer premium rates on large certificates of deposit.

MIX OF AVERAGE SOURCES OF FU	UNDING								
(dollars in thousands)			2018 vs.		2018 vs.	2017 vs.		omponents o	
,		2018	2017	2016	2017	2016	2018	2017	2016
Retail deposits									
Demand deposits		\$ 396,367	382,658			12,838	9.0%	8.7	8.5
Savings		1,241,619	1,275,268				28.2	29.0	29.3
Time deposits under \$250 thousand		967,765	960,408		7,357	(58,163)		21.8	23.5
Interest bearing checking accounts		897,378	844,010			79,611	20.4	19.2	17.6
Money market deposits		521,233	572,270	580,125			11.8	13.0	13.4
Total retail deposits		4,024,362	4,034,614	4,004,930			91.4	91.7	92.4
Time deposits over \$250 thousand		182,215	136,782		45,433	(7,489)		3.1	3.3
Short-term borrowings		194,810	228,086		(33,276)		4.4	5.2	4.3
Total purchased liabilities		377,025	364,868	-	12,157	34,925	8.6	8.3	7.6
Total sources of funding		\$4,401,387	4,399,482	4,334,873	1,905	64,609	100.0%	100.0	100.0
AVERAGE BALANCES, YIELDS AND (dollars in thousands)	Average Balance	2018 Interest Income/ Expense	Average Rate	Average Balance	2017 Interest Income/ Expense	Average Rate	Average Balance	2016 Interest Income/ Expense	Average Rate
Assets	Bulance	Expense	Rute	Bulance	Expense	Rate	Bulance	Expense	Rute
Loans, net	\$3,746,082	158,304	4.23%	\$3,514,900	148,162	4.22%	\$3,348,324	143,705	4.29%
,	4-7)			-, -			- ,	
Securities available for sale:									
U.S. government sponsored									
enterprises	155,381	3,112	2.00	139,652	2,281	1.63	101,242	1,489	1.47
State and political subdivisions	414	34	8.21	682	55	8.06	991	80	8.07
Mortgage backed securities and									
collateralized mortgage									
obligations-residential	294,732	6,593	2.24	350,256	7,447	2.13	410,646	7,963	1.94
Corporate bonds	30,310	687	2.27	41,946	606	1.44	17,088	246	1.44
Small Business Administration-	(2.420	1 220	2.11	72.006	1.547	2.00	06.407	1 001	2.00
guaranteed participation securities Mortgage backed securities and collateralized mortgage	63,430	1,339	2.11	73,996	1,547	2.09	86,407	1,801	2.08
obligations-commercial	2,769	37	1.33	9,963	109	1.09	10,284	133	1.29
Other	685	18	2.63	685	16	2.34	683	16	2.34
Total securities available for sale	547,721	11,820	2.16	617,180	12,061	1.95	627,341	11,728	1.87
Held to maturity securities:		•			•			•	
Mortgage backed securities and collateralized mortgage									
obligations-residential	24,801	962	3.88	31,266	1,149	3.67	40,830	1,454	3.56
Corporate bonds		-	-	6,663	410	6.15	10,145	617	6.08
Total held to maturity securities	24,801	962	3.88	37,929	1,559	4.11	50,975	2,071	4.06
Federal Reserve Bank and Federal									
Home									
Loan Bank stock	8,907	564	6.33	9,295	544	5.85	9,554	502	5.25
Federal funds sold and other short-	40 = 0 = -	0.5		611 -06	6 c=0	1.00		2	o = o
term investments	495,066	9,276	1.87	611,586	6,679	1.09	662,436	3,407	0.50
Total interest earning assets	4,822,577	180,926	3.75%	4,790,890	169,005	3.53%	4,698,630	161,413	3.44%
Allowance for loan losses	(44,651)			(44,319)			(44,718)		
Cook and nanintaract agrains accosts	122 524			120.007			126 790		

129,097

478

1,729

10,983

13,190

1,402

14,592

\$4,875,668

1,275,268

1,669,460

3,788,738

4,016,824

228,086

382,658

0.05% \$ 844,010

0.13

1.01

0.50

0.65

0.51%

136,789

473

2,148

11,592

14,213

1,091

15,304

0.06%

0.17

0.67

0.38

0.59

0.39%

\$4,790,701

764,399

1,272,015

1,742,967

3,779,381

3,965,053

185,672

369,820

0.06% \$

0.14

0.66

0.35

0.61

0.36%

Cash and noninterest earning assets

Interest bearing checking accounts

Time deposits and money markets

Total interest bearing deposits

Total interest bearing liabilities

Short-term borrowings

Demand deposits

Liabilities and shareholders' equity Interest bearing deposits:

Total assets

Savings

122,524

442

1,657

16,859

18,958

1,270

20,228

\$4,900,450

\$ 897,378

1,241,619

1,671,213

3,810,210

4,005,020

194,810

396,367

Other liabilities	28,249	28,506	2	27,439
Shareholders' equity	470,814	447,680	42	28,389
Total liabilities and shareholders'				
equity	\$4,900,450	\$4,875,668	\$4,79	90,701
Net interest income	160,698		154,413	146,109
Taxable equivalent adjustment	(12))	(45)	(54)
Net interest income	160,686		154,368	146,055
Net interest spread		3.25%	3.16%	3.05%
Net interest margin (net interest income				
to total interest earnings assets)		3.33	3.22	3.11

Portions of income earned on certain commercial loans, obligations of states and political subdivisions, and equity securities are exempt from federal and/or state taxation. Appropriate adjustments have been made to reflect the equivalent amount of taxable income that would have been necessary to generate an equal amount of after tax income. Federal and state tax rates used to calculate income on a tax equivalent basis were 21.0% and 6.0%, respectively, for 2018, and 35.0% and 7.5%, respectively, for 2017 and 2016. [The average balances of securities available for sale and held to maturity were calculated using amortized costs. Included in the average balance of shareholders' equity is \$849 thousand, \$3.1 million, and \$5.0 million in 2018, 2017, and 2016, respectively, of net unrealized loss, net of tax, in the available for sale securities portfolio.] The gross amounts of the net unrealized loss has been included in cash and noninterest earning assets. Nonaccrual loans are included in average loans.

While the overall cost of interest bearing deposits increased 0.50% in 2018, the overall growth in interest bearing assets and yields increased, which resulted in improvement to the margin by 11 basis points.

The Company strives to maintain competitive rates on deposit accounts and to attract customers through a combination of competitive interest rates, quality customer service, and convenient banking locations. In this fashion, management believes, TrustCo is able to attract deposit customers looking for a long-term banking relationship and to cross-sell banking services utilizing the deposit account relationship as the starting point.

Other funding sources: The Company had \$194.8 million of average short-term borrowings outstanding during 2018, compared to \$228.1 million in 2017. These borrowings represent customer repurchase accounts, which behave more like deposit accounts than traditional borrowings. The average cost of short-term borrowings was 0.65% in 2018 and 0.61% in 2017. This resulted in interest expense of approximately \$1.3 million in 2018, compared to \$1.4 million in 2017.

AVERAGE DEPOSITS BY TYPE OF DEPOSITOR

(dollars in thousands)		Years ended December 31,									
		2018	2017	2016	2015	2014					
Individuals, partnerships and corporations	\$	4,184,850	4,149,832	4,127,587	4,085,491	3,965,716					
U.S. Government		-	-	-	-	2					
States and political subdivisions		3,007	2,765	3,085	2,654	2,141					
Other (certified and official checks, etc.)		18,720	18,799	18,529	15,360	11,109					
Total average deposits by type of depositor	\$	4,206,577	4,171,396	4,149,201	4,103,505	3,978,968					

MATURITY OF TIME DEPOSITS OVER \$250 THOUSAND

(dollars in thousands)

	As of Dec	cember 31, 2018		
Under 3 months	\$	62,888		
3 to 6 months		41,392		
6 to 12 months		27,414		
Over 12 months		50,521		
Total	\$	182,215		

VOLUME AND YIELD ANALYSIS

(dollars in thousands)		2	2018 vs. 2017		2017 vs. 2016					
	Increase (Decrease)		Due to Volume	Due to Rate	Increase (Decrease)		Due to Volume		Due to Rate	
Interest income (TE):										
Federal funds sold and other short-term										
investments	\$	2,597	(942)	3,539	\$	3,272	(231)	\$	3,503	
Securities available for sale:										
Taxable		(220)	(1,465)	1,245		358	(751)		1,109	
Tax-exempt		(21)	(21)	-		(25)	(25)		-	
Total securities available for sale		(241)	(1,486)	1,245		333	(776)		1,109	
Held to maturity securities (taxable)		(597)	(453)	(144)		(512)	(564)		52	
Federal Reserve Bank and Federal Home Loan										
Bank stock		20	(21)	41		42	(13)		55	
Loans, net		10,142	9,623	519		4,457	6,985		(2,528)	
Total interest income		11,921	6,721	5,200		7,592	5,401		2,191	
Interest expense:										
Interest bearing checking accounts		(36)	34	(70)		5	27		(22)	
Savings		(72)	(44)	(28)		(419)	5		(424)	
Time deposits and money markets		5,876	318	5,558		(609)	(571)		(38)	
Short-term borrowings		(132)	(226)	94		311	259		52	
Total interest expense		5,636	82	5,554		(712)	(280)		(432)	
Net interest income (TE)	\$	6,285	6,639	(354)	\$	8,304	5,681		2,623	

Capital Resources

Consistent with its long-term goal of operating a sound and profitable financial organization, TrustCo strives to maintain strong capital ratios and to qualify Trustco Bank as a well-capitalized institution in accordance with federal regulatory requirements. Historically, most of the Company's capital requirements have been provided through retained earnings generated.

Both TrustCo and TrustCo Bank are subject to regulatory capital requirements. On January 1, 2016, a new capital rule took effect that revised the federal bank regulatory agencies' risk-based capital requirements and, for the first time, subjected the Company to consolidated regulatory capital requirements. Among other matters, the rule also established a new common equity Tier 1 minimum capital requirement of 4.5% of risk-weighted assets, increased the minimum Tier 1 capital to risk-based assets requirement from 4.0% to 6.0% of risk-weighted assets, changed the risk-weightings of certain assets, and changed what qualifies as capital for purposes of meeting the various capital requirements. In addition, the Company and the Bank are required to maintain additional levels of Tier 1 common equity (the capital conservation buffer) over the minimum risk-based capital levels before they may pay dividends, repurchase shares, or pay discretionary bonuses. The new rule will be phased-in over several years and will be fully in effect in 2019. Calendar year 2018 was the third year of implementation of the new capital rules.

As of December 31, 2018, the capital levels of both TrustCo and the Bank exceeded the minimum standards, including with the current and also fully phased-in capital conservation buffer is taken into account.

Under the OCC's "prompt corrective action" regulations, a bank is deemed to be "well-capitalized" when it's CET1, Tier 1, total risk-based, and leverage capital ratios are at least 6.5%, 8%, 10%, and 5%, respectively. A bank is deemed to be "adequately capitalized" or better if its capital ratios meet or exceed the minimum federal regulatory capital requirements, and "undercapitalized" if it fails to meet these minimal capital requirements. A bank is "significantly undercapitalized" if its CET1, Tier 1, total risk-based and leverage capital ratios fall below 3%, 4%, 6%, and 3%, respectively and "critically undercapitalized" if the institution has a ratio of tangible equity to total assets that is equal to or less than 2%. At December 31, 2018 and 2017, Trustco Bank met the definition of "well-capitalized."

The Company's dividend payout ratio was 42.0% of net income in 2018 and 58.4% of net income in 2017. The per-share dividend paid was \$0.2625 in 2017 and \$0.2674 in 2018. The Company's ability to pay dividends to its shareholders is dependent upon the ability of the Bank to pay dividends to the Company. The payment of dividends by the Bank to the Company is subject to continued compliance with minimum regulatory capital requirements and, during 2018 and 2017, the Bank's compliance with the capital plan required under the terms of the Bank's July 21, 2016 formal agreement with the OCC. Under the OCC agreement, the Bank could declare or pay a dividend or make a capital distribution only (a) if the Bank was in compliance with its approved written capital plan, and would remain in compliance with such Capital Plan immediately following the declaration or payment of any dividend or capital distribution, and (b) following OCC approval under OCC capital distribution rules. The OCC could disapprove a dividend if: the Bank would be undercapitalized following the distribution; the proposed capital distribution raises safety and soundness concerns; or the capital distribution would violate a prohibition contained in any statue, regulation or agreement. In addition, under the agreement signed with the OCC in 2016, the payment of dividends by the Bank are subject to prior approval. As noted above, the OCC has terminated the formal agreement with the Bank effective February 7, 2018. As a result of the termination of the agreement, the Bank will not be required to obtain prior OCC approval of proposed dividend payments to the Company, although the Bank will be required to provide prior notice of intended dividends to the Federal Reserve Board and the OCC.

TrustCo's consolidated Tier 1 risk-based capital was 18.79% of risk-adjusted assets at December 31, 2018, and 18.02% of risk-adjusted assets at December 31, 2017. Consolidated Tier 1 capital to assets (leverage ratio) at December 31, 2018 was 10.13%, as compared to 9.45% at year-end 2017. Note 14 to the financial statements includes information on all regulatory capital ratios.

TrustCo maintains a dividend reinvestment plan (DRP) with approximately 11,900 participants. During 2018, \$2.4 million of dividends paid on the shares held in this plan were reinvested in shares of the Company. The DRP also allows for additional purchases by participants and has a discount feature (up to a 5% for safe harbor provisions) that can be activated by management as a tool to raise capital. To date, the discount feature has not been utilized.

Risk Management

The responsibility for balance sheet risk management oversight is the function of the Company's Asset Allocation Committee. The Committee meets monthly and includes the executive officers of the Company as well as other department managers as appropriate. The meetings include a review of balance sheet structure, formulation of strategy in light of anticipated economic conditions, and comparison to Board-established guidelines to control exposures to various types of risk.

Credit Risk

Credit risk is managed through a network of loan officer authorities, review committees, loan policies, and oversight from the senior executives of the Company. In addition, the Company utilizes an independent loan review function to evaluate management's loan grading of non-homogeneous loans. Management follows a policy of continually identifying, analyzing, and evaluating the credit risk inherent in the loan portfolio. As a result of management's ongoing reviews of the loan portfolio, loans are placed in nonaccrual status, either due to the delinquent status of the principal and/or interest payments, or based on a judgment by management that, although payment of principal and/or interest is current, such action is prudent. Thereafter, no interest is taken into income unless received in cash or until such time as the borrower demonstrates a sustained ability to make scheduled payments of interest and principal.

Management has also developed policies and procedures to monitor the credit risk in relation to the Federal Funds sold portfolio. TrustCo maintains an approved list of third party banks to which Trustco can sell Federal Funds and monitors the credit rating and capital levels of those institutions. At December 31, 2018 virtually all of the Federal Funds sold and other short term investments were funds on deposit at the Federal Reserve Bank of New York and the Federal Home Loan Bank of New York. The Company also monitors the credit ratings on its investment securities and performs initial and periodic reviews of financial information for corporate and municipal bonds.

Nonperforming Assets

Nonperforming assets include loans in nonaccrual status, restructured loans, loans past due by three payments or more and still accruing interest, and foreclosed real estate properties.

Nonperforming assets at year-end 2018 and 2017 totaled \$26.7 million and \$27.6 million, respectively. Nonperforming loans as a percentage of the total loan portfolio were 0.64% in 2018 and 0.67% in 2017. As of December 31, 2018 and 2017, there were \$8.6 million of loans in non-accruing status that were less than 90 days past due. During 2018, a sale of approximately \$4.4 million of nonperforming assets was completed at a gain of \$925 thousand.

NONPERFORMING ASSETS

(dollars in thousands)	As of December 31,										
		2018	2017	2016	2015	2014					
Loans in nonaccrual status	\$	24,952	24,339	25,018	28,212	33,886					
Loans contractually past due 3 payments or											
more and still accruing interest		-	-	-	-	-					
Restructured retail loans		34	38	42	48	125					
Total nonperforming loans (1)		24,986	24,377	25,060	28,260	34,011					
Foreclosed real estate		1,676	3,246	4,268	6,455	6,441					
Total nonperforming assets	\$	26,662	27,623	29,328	34,715	40,452					
Allowance for loan losses	\$	44,766	44,170	43,890	44,762	46,327					
Allowance coverage of nonperforming loans		1.79 x	1.81	1.75	1.58	1.36					
Nonperforming loans as a % of total loans		0.64 %	0.67	0.73	0.86	1.08					
Nonperforming assets as a % of total assets		0.54 %	0.56	0.60	0.73	0.87					

(1) As of December 31, 2018, 2017 and 2016, the Company also had \$11.1 million, \$11.8 million and \$11.5 million, respectively, of performing retail loans for which the borrower has filed for chapter 7 bankruptcy protection and not reaffirmed their debt to Trustco Bank. Under guidance issued by the OCC in the third quarter of 2016, these loans are deemed to be troubled debt restructurings ("TDRs"), and as such have been included in the impaired loan disclosures. For the periods prior to the OCC guidance, these loans were not considered to be TDRs.

At December 31, 2018, nonperforming loans include a mix of commercial and residential loans. Of the total nonaccrual loans of \$25.0 million, \$24.3 million were residential real estate loans and \$645 thousand were commercial loans. It is the Company's policy to classify loans as nonperforming if three monthly payments have been missed. Economic conditions improved over the last year, but remain challenging in some respects. The majority of the Company's loan portfolio continues to come from its historical market area in Upstate New York. As of December 31, 2018, 76.1% of loans are in New York, including both the Upstate and Downstate areas, as well as nominal loan balances in adjoining states. The Upstate New York region has been affected by the economic downturn to a much lesser degree than markets that previously enjoyed more robust growth and more rapid escalation in housing prices. The remaining 23.9% of the loan portfolio are Florida loans. The Company's Downstate New York and Florida market areas experienced more of an impact from the economic downturn, but conditions have improved significantly over the recent years. At December 31, 2018, 7.7% of nonperforming loans were in Florida and 92.3% were in the Company's New York area markets. At December 31, 2018 nonperforming Florida loans amounted to \$1.9 million compared to \$2.4 million at December 31, 2017.

TrustCo has identified nonaccrual commercial and commercial real estate loans, as well as all loans restructured under a TDR, as impaired loans.

There were \$1.4 million and \$2.2 million of commercial loans classified as impaired as of December 31, 2018 and 2017, respectively. In addition, there were \$20.9 million and \$22.0 million of residential TDRs classified as impaired at December 31, 2018 and 2017, respectively. Generally, residential TDRs involve the borrower filing for bankruptcy protection. The average balances of all impaired loans were \$23.1 million during 2018, \$24.8 million in 2017 and \$22.4 million in 2016

Ongoing portfolio management is intended to result in early identification and disengagement from deteriorating credits. TrustCo has a diversified loan portfolio that includes a significant balance of residential mortgage loans to borrowers in the Capital Region of New York and avoids concentrations to any one borrower or any single industry.

There are inherent risks associated with lending, however based on its review of the loan portfolio, including loans classified as nonperforming loans, TDRs and impaired loans, management is aware of no other loans in the portfolio that pose significant risk of the eventual non-collection of principal and interest. As of December 31, 2018, there were no other loans classified for regulatory purposes that management reasonably expects will materially impact future operating results, liquidity, or capital resources. TrustCo has no advances to borrowers or projects located outside the United States. The Bank makes loans to executive officers, directors and to associates of such persons. These loans are made in the ordinary course of business on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions. These loans do not involve more than normal risk of collectability or present other unfavorable features.

At year-end 2018 and 2017 there were \$1.7 million and \$3.2 million of foreclosed real estate, respectively. Although the length of time to complete a foreclosure has remained elevated in recent years, TrustCo, as a portfolio lender, has not encountered issues such as lost notes and other documents, which have been a problem in the foreclosure process for many other mortgagees.

Allowance for Loan Losses

The Company maintains an allowance for loan losses that is available to absorb losses on loans that management determines are uncollectible. The balance of the allowance is maintained at a level that is, in management's judgment, representative of probable incurred losses related to the loan portfolio at the end of the reporting period.

The allowance for loan losses represents management's estimate of probable and reasonably estimable credit losses inherent in the held for investment loan portfolio. In determining the allowance, we estimate losses on specific loans, or groups of loans, where the probable loss can be identified and reasonably estimated. On a quarterly basis, we assess the risk inherent in our loan portfolio based on qualitative and quantitative trends in the portfolio, including the internal risk classification of loans, historical loss rates, changes in the nature of the portfolio, industry concentrations, delinquency trends, detailed reviews of significant loans with identified weaknesses and the impacts of local, regional and national economic factors on the quality of the loan portfolio. Based on this analysis, we record a provision for loan losses in order to maintain the allowance at appropriate levels.

Determining the amount of the allowance is considered a critical accounting estimate, as it requires significant judgment and the use of subjective measurements, including management's assessment of overall portfolio quality. The allowance is maintained at an amount we believe is sufficient to provide for estimated losses inherent in our loan portfolio at each balance sheet date, and fluctuations in the provision for loan losses may result from management's assessment of the adequacy of the allowance. Changes in these estimates and assumptions are possible and may have a material impact on our allowance, and therefore our financial position, liquidity or results of operations.

The table, "Summary of Loan Loss Experience", includes an analysis of the changes to the allowance for the past five years. Net loans charged off in 2018 and 2017 were \$804 thousand and \$1.7 million, respectively. The decrease in net charge-offs was primarily the result of lower gross charge-offs in both the New York and Florida residential segments of the portfolio and lower commercial gross charge-offs in the New York segment. New York commercial gross charge-offs were up \$28 thousand from 2017 to 2018, while residential gross charge-offs were down \$1.2 million in 2018 relative to 2017. There were no Florida commercial charge-offs in either 2017 or 2018, while residential gross charge-offs were down \$167 thousand from 2017 to 2018. Total gross installment charge-offs increased \$38 from 2017 to 2018. The changes in gross and net charge-offs in these categories reflected economic and market changes. During 2018, 61.5% of net charge-offs were on residential real estate loans, 27.2% were on installment loans and commercial loans of 11.2%, compared to an average loan mix of 5.0% commercial, 94.8% real estate (including home equity products) and 0.2% installment. Included in the net numbers cited above were recoveries of \$399 thousand in 2018 and \$791 thousand in 2017. The Company recorded a \$1.4 million provision for loan losses in 2018 compared to \$2.0 million in 2017. The decrease in the provision for loan losses in 2018 was primarily related to positive asset quality trends and improving economic conditions.

The allowance for loan losses increased from \$44.2 million at December 31, 2017, or 1.21% of total loans at that date, to \$44.8 million at December 31, 2018, or 1.16% of total loans at that date.

While conditions in most of the Bank's market areas are stable or improving, should general economic conditions weaken and/or real estate values begin to decline again, the level of problem loans may increase, as would the level of the provision for loan losses.

SUMMARY OF LOAN LOSS EXPERIENCE

(dollars in thousands)

	2018	2017	2016	2015	2014
Amount of loans outstanding at end of year (less unearned					
income)	\$ 3,874,096	3,636,407	3,430,586	3,293,304	3,158,332
Average loans outstanding during year (less average unearned					
income)	 3,746,082	3,514,900	3,348,324	3,234,806	3,014,156
Balance of allowance at beginning of year	44,170	43,890	44,762	46,327	47,714
Loans charged off:					
Commercial and commercial real estate	100	72	795	779	1,010
Real estate mortgage - 1 to 4 family	846	2,220	3,573	4,951	6,320
Installment	 257	219	342	185	214
Total	1,203	2,511	4,710	5,915	7,544
Recoveries of loans previously charged off:					
Commercial and commercial real estate	10	96	207	27	514
Real estate mortgage - 1 to 4 family	351	669	617	577	511
Installment	 38	26	64	46	32
Total	399	791	888	650	1,057
Net loans charged off	804	1,720	3,822	5,265	6,487
Provision for loan losses	1,400	2,000	2,950	3,700	5,100
Balance of allowance at end of year	\$ 44,766	44,170	43,890	44,762	46,327
Net charge offs as a percent of average loans outstanding during					
year (less average unearned income)	0.02%	0.05	0.11	0.16	0.22
Allowance as a percent of loans outstanding at end of year	1.16	1.21	1.28	1.36	1.47

Allocation of the Allowance for Loan Losses

The allocation of the allowance for loans losses is as follows:

(dollars in thousands)	 As December		As of December 31, 2017			
	Amount			Amount	Percent of Loans to Total Loans	
Commercial	\$ 3,903	4.74%	\$	4,205	4.85%	
Real estate - construction	310	0.69%		379	0.85%	
Real estate mortgage - 1 to 4 family	34,918	86.80%		33,622	85.56%	
Home equity lines of credit	4,689	7.47%		5,195	8.50%	
Installment Loans	946	0.30%		769	0.24%	
	\$ 44,766	100.00%	\$	44,170	100.00%	

Market Risk

The Company's principal exposure to market risk is with respect to interest rate risk. Interest rate risk is the potential for economic loss due to future interest rate changes. These economic losses can be reflected as a loss of future net interest income and/or a loss of current market value.

Quantitative and Qualitative Disclosure about Market Risk

TrustCo realizes income principally from the difference or spread between the interest earned on loans, investments and other interest-earning assets and the interest paid on deposits and borrowings. Loan volume and yield, as well as the volume of and rates on investments, deposits and borrowings are affected by market interest rates. Additionally, because of the terms and conditions of many of the loan documents and deposit accounts, a change in interest rates could also affect the projected maturities of the loan portfolio and/or the deposit base.

In monitoring interest rate risk, management focuses on evaluating the levels of net interest income and the fair value of capital in varying interest rate cycles within Board-approved policy limits. Interest rate risk management also must take into consideration, among other factors, the Company's overall credit, operating income, operating cost, and capital profile. The Asset Allocation Committee, which includes all members of executive management and reports quarterly to the Board of Directors, monitors and manages interest rate risk to maintain an acceptable level of potential change in the fair value of capital as a result of changes in market interest rates.

The Company uses an industry standard simulation model as the primary tool to identify, quantify and project changes in interest rates and the impact on the balance sheet and forecasted net interest income. The model utilizes assumptions with respect to cash flows and prepayment speeds taken both from industry sources and internally generated data based upon historical trends in the Bank's balance sheet. Assumptions based on the historical behavior of deposit rates and balances in relation to changes in market interest rates are also incorporated into the model. This model calculates a fair value amount with respect to non-time deposit categories, since these deposits are part of the core deposit products of the Company. The assumptions used are inherently uncertain and, as a result, the model cannot precisely measure the fair value of capital or precisely predict the impact of fluctuations in interest rates on the fair value of capital.

Using this model, the fair values of capital projections as of December 31, 2018 are referenced below. The base case scenario shows the present estimate of the fair value of capital assuming no change in the operating environment or operating strategies and no change in interest rates from those existing in the marketplace as of December 31, 2018. The table indicates the impact on the fair value of capital assuming interest rates were to instantaneously increase by 100, 200, 300 and 400 basis points (BP) or to decrease by 100 basis points.

As of December 31, 2018	Estimated Percentage of Fair value of Capital to Fair value of Assets
+400 BP	19.27%
+300 BP	20.91
+200 BP	22.44
+100 BP	22.51
Current rates	23.29
-100 BP	22.71
-200 BP	20.33

At December 31, 2018, the Company's consolidated Tier 1 capital to assets ratio (leverage capital ratio) was 10.13%.

The fair value of capital is calculated as the fair value of assets less the fair value of liabilities in the interest rate scenario presented. The fair value of capital in the current rate environment is 23.29% of the fair value of assets, whereas the current Tier 1 capital to assets ratio was 10.13% at December 31, 2018, as noted. The significant difference between these two capital ratios reflects the impact that a fair value calculation can have on the capital ratios of a company. The fair value of capital calculations take into consideration the fair value of deposits, including those deposits considered core deposits, along with the fair value of assets such as the loan portfolio.

A secondary method to identify and manage the interest rate risk profile is the static gap analysis. Interest sensitivity gap analysis measures the difference between the assets and liabilities repricing or maturing within specific time periods. An asset-sensitive position indicates that there are more rate-sensitive assets than rate-sensitive liabilities repricing or maturing within specific time periods, which would generally imply a favorable impact on net interest income in periods of rising interest rates and a negative impact in periods of falling rates. A liability-sensitive position would generally imply a negative impact on net interest income in periods of rising rates and a positive impact in periods of falling rates.

Static gap analysis has limitations because it cannot measure precisely the effect of interest rate movements and competitive pressures on the repricing and maturity characteristics of interest-earning assets and interest-bearing liabilities. In addition, a significant portion of the interest sensitive assets are fixed rate securities with relatively long lives whereas the interest-bearing liabilities are not subject to these same limitations. As a result, certain assets and liabilities may in fact reprice at different times and at different volumes than the static gap analysis would indicate. The Company deemphasized the use of gap analysis in favor of the more advanced methods provided by the previously noted model, including the sensitivity of the economic value of equity and net interest income.

The Company recognizes the relatively long-term nature of the fixed rate residential loan portfolio. To fund those long-term assets, the Company cultivates long-term deposit relationships (often called core deposits). These core deposit relationships tend to be longer-term in nature and not as susceptible to changes in interest rates. Core deposit balances, along with substantial levels of short-term liquid assets allows the Company to take on certain interest rate risk with respect to the fixed rate loans on its balance sheet.

The table, "Interest Rate Sensitivity," presents an analysis of the interest-sensitivity gap position at December 31, 2018. All interest-earning assets and interest-bearing liabilities are shown based upon their contractual maturity or repricing date adjusted for forecasted prepayment rates. Asset prepayment and liability repricing periods are selected after considering the current rate environment, industry prepayment and data specific to the Company. The interest rate sensitivity table indicates that TrustCo is nominally liability sensitive on a cumulative basis when measured in the less than 1 year and 1-5 years buckets. The effect of being liability sensitive is that rising interest rates should result in liabilities repricing to higher levels faster than assets repricing to higher levels, thus decreasing net interest income. TrustCo is nominally asset sensitive on the Over 5 years bucket. The effect of being that rising interest rates should result in assets repricing to higher levels faster than liabilities repricing to higher levels, thus increasing net interest income. Conversely, should interest rates decline, the Company's interest bearing assets would reprice down faster than liabilities, resulting in lower net interest income.

INTEREST RATE SENSITIVITY

(dollars in thousands)		At December 31, 2018									
	Repricing in:										
		ess than 1	1-5	Over 5	Rate						
		year	years	years	Insensitive	Total					
Total assets	\$	1,149,031	1,353,709	2,356,562	99,611	4,958,913					
Cumulative total assets	\$	1,149,031	2,502,740	4,859,302	4,958,913						
Total liabilities and shareholders' equity	\$	1,392,308	1,420,754	1,630,934	514,917	4,958,913					
Cumulative total liabilities and shareholders' equity	\$	1,392,308	2,813,062	4,443,996	4,958,913						
Cumulative interest sensitivity gap	\$	(243,277)	(310,322)	415,306							
Cumulative gap as a % of interest earning assets for the period		(21.2%)	(12.4%)	8.5%							
Cumulative interest sensitive assets to liabilities		82.5%	89.0%	109.3%							

In practice, the optionality imbedded in many of the Company's assets and liabilities, along with other limitations such as differing timing between changes in rates on varying assets and liabilities limits the effectiveness of gap analysis. Thus, the table should be viewed as a rough framework in the evaluation of interest rate risk. Management takes these factors, and others, into consideration when reviewing the Bank's gap position and establishing its asset/liability strategy. As noted, the simulation model is better able to consider these aspects of the Bank's exposure to potential rate changes and thus is viewed as the more important of the two methodologies.

Liquidity Risk

TrustCo seeks to obtain favorable funding sources and to maintain prudent levels of liquid assets in order to satisfy various liquidity demands. In addition to serving as a funding source for maturing obligations, liquidity provides flexibility in responding to customer-initiated needs. Many factors affect the ability to meet liquidity needs, including changes in the markets served by the Bank's network of branches, the mix of assets and liabilities, and general economic conditions.

The Company actively manages its liquidity position through target ratios established under its asset/liability management policies. Continual monitoring of these ratios, both historically and through forecasts under multiple interest rate scenarios, allows TrustCo to employ strategies necessary to maintain adequate liquidity levels—as provided in its asset/liability management policies. Management has also developed various liquidity alternatives, such as borrowings from the Federal Home Loan Bank of New York ("FHLBNY") and the Federal Reserve Bank of New York ("FRBNY"), and through the utilization of brokered CDs, should the need develop.

The Company achieves its liability-based liquidity objectives in a variety of ways. Liabilities can be classified into three categories for the purposes of managing liability-based liquidity: retail deposits, purchased money, and capital market funds. TrustCo seeks deposits that are dependable and predictable and that are based as much on the level and quality of service as they are on interest rate. Average retail deposits (total deposits less time deposits greater than \$250 thousand) amounted to \$4.02 billion in 2018 and \$4.03 billion in 2017. Average balances of core deposits are detailed in the table "Mix of Average Sources of Funding."

In addition to core deposits, another source of liability-based funding available to TrustCo is purchased money, which consists of long-term and short-term borrowings, Federal Funds purchased, securities sold under repurchase agreements, and time deposits greater than \$250 thousand. The average balances of these purchased liabilities are detailed in the table "Mix of Average Sources of Funding." During 2018, the average balance of purchased liabilities was \$377.0 million, compared with \$364.9 million in 2017. Although classified as purchased liabilities for the purposes of this analysis the Company does not offer premium rates on large time deposits and thus views its time deposits as relatively stable funds. The increase in borrowed funds is wholly the result of customer's behavioral preferences in regard to managing their funds and does not reflect any decision by management to increase this category of funding. The classification of time deposits over \$250 thousand as purchased liabilities is typical industry practice, partly reflecting that some banks pay premium rates for larger balance time deposits.

The Bank also has a line of credit available with the FHLBNY. The amount of that line is determined by the Bank's total assets and the amount and types of collateral pledged. Assets that are eligible for pledging include most loans and securities. The Bank can borrow up to 30% of its total assets from the FHLBNY without special approval and may apply to borrow up to 50% of its total assets. Securities and loans pledged as collateral against any borrowings must cover certain margin requirements. Eligible securities have a maximum lendable value of 67% to 97%, depending on the security type, with the securities in the Bank's investment portfolio generally having maximum lendable values of 80% to 95%. The maximum lendable value against loans is 90% for 1-4 family residential mortgages, 80% for multifamily mortgages and 75% for commercial mortgages. For both securities and loans, the maximum lendable limits are applied to the market value of the asset pledged. At December 31, 2018 there were no outstanding balances associated with this line of credit. In addition, the Bank has access to borrowings from the FRBNY. Borrowings from the FRBNY are subject to collateralization by securities or loans acceptable to the FRBNY and at collateral margins set by the FRBNY.

The Company's overall liquidity position is favorable compared to its peers. A simple liquidity proxy often used in the industry is the ratio of loans to deposits, with a lower number representing a more liquid institution. At December 31, 2018, TrustCo's loan to deposit ratio was 90.64% compared to 87.1% at December 31, 2017, while the median peer group of all publically traded banks and thrifts tracked by S&P Global Market Intelligence financial with assets between \$2 billion and \$10 billion had ratios of 94.8% and 92.0%, respectively. In addition, at December 31, 2018 and 2017, the Company had cash and cash equivalents totaling \$503.7 million and \$612.7 million, respectively, as well as unpledged securities available for sale with a fair value of \$298.4 million and \$220.2 million, respectively.

Off-Balance Sheet Risk

Commitments to extend credit: The Bank makes contractual commitments to extend credit, and extends lines of credit which are subject to the Bank's credit approval and monitoring procedures. At December 31, 2018 and 2017, commitments to extend credit in the form of loans, including unused lines of credit, amounted to \$432.6 million and \$414.3 million, respectively. In management's opinion, there are no material commitments to extend credit that represent unusual risk

The Company has issued conditional commitments in the form of standby letters of credit to guarantee payment on behalf of a customer and guarantee the performance of a customer to a third party. Standby letters of credit generally arise in connection with lending relationships. The credit risk involved in issuing these instruments is essentially the same as that involved in extending loans to customers. Contingent obligations under standby letters of credit totaled approximately \$6.6 million and \$3.8 million at December 31, 2018 and 2017, respectively, and represent the maximum potential future payments the Company could be required to make. Typically, these instruments have terms of 12 months or less and expire unused; therefore, the total amounts do not necessarily represent future cash requirements. Each customer is evaluated individually for creditworthiness under the same underwriting standards used for commitments to extend credit and on-balance sheet instruments. Company policies governing loan collateral apply to standby letters of credit at the time of credit extension. Loan-to-value ratios are generally consistent with loan-to-value requirements for other commercial loans secured by similar types of collateral. The fair value of the Company's standby letters of credit at December 31, 2018 and 2017 was insignificant.

Other off-balance sheet risk: TrustCo does not engage in activities involving interest rate swaps, forward placement contracts, or any other instruments commonly referred to as "derivatives." Management believes these instruments pose a high degree of risk, and that investing in them is unnecessary. TrustCo has no off-balance sheet partnerships, joint ventures, or other risk sharing entities.

Noninterest Income and Expense

Noninterest income: Noninterest income is an important source of revenue for the Company and a factor in overall results. Total noninterest income was \$18.1 million in 2018, \$18.4 million in 2017 and \$19.0 million in 2016. There were no net securities gains recorded in 2018 while 2016 results included \$668 thousand of net gains. Excluding securities gains and losses, noninterest income was \$18.1 million in 2018, \$18.4 million in 2017 and \$18.3 million in 2016.

Trustco Financial Services contributes a large recurring portion of noninterest income through fees generated by providing fiduciary and investment management services. Income from these fiduciary activities totaled \$6.3 million in 2018, \$6.6 million in 2017 and \$5.9 million in 2016. Trust fees are generally calculated as a percentage of the assets under management by Trustco Financial Services. In addition, trust fees include fees for estate settlements, tax preparation, and other services. Assets under management by Trustco Financial Services are not included on the Company's Consolidated Financial Statements because Trustco Financial Services holds these assets in a fiduciary capacity. At December 31, 2018, 2017 and 2016, fair value of assets under management by the Trustco Financial Services were approximately \$802.6 million, \$890.2 million and \$845.7 million, respectively. The changes in levels of assets under management reflects a combination of changing market valuations and the net impact of new customer asset additions, losses of accounts and the settlement of estates.

The Company routinely reviews its service charge policies and levels relative to its competitors. Reflecting those reviews, the Company makes changes in fees for services to customers in terms of both the levels of fees as well as types of fees where appropriate. The changes in reported noninterest income also reflect the volume of services customers utilized and regulatory changes governing overdrafts. There were no sales of nonperforming loans in 2018. During 2018, 2017 and 2016 sales of nonperforming loans resulted in gains of \$85 thousand and \$24 thousand, respectively, and are included in other noninterest income. Also included in other noninterest income in 2016 is a gain of \$469 thousand on the sale of a building.

NONINTEREST INCOME

(dollars in thousands)		For the year	ar ended Decem		2018 vs. 2017			
	2018		2017	2016	Amount		Percent	
Trustco Financial Services income	\$	6,283	6,584	5,886	\$	(301)	(4.6)%	
Fees for services to customers		10,912	10,798	10,857		114	1.1	
Net gain on securities transactions		-	-	668		-	-	
Other		886	991	1,601		(105)	(10.6)	
Total noninterest income	\$	18,081	18,373	19,012	\$	(292)	(1.6)%	

Noninterest expense: Noninterest expense was \$97.7 million in 2018, compared with \$94.0 million in 2017 and \$93.8 million in 2016. TrustCo's operating philosophy stresses the importance of monitoring and controlling the level of noninterest expense. The efficiency ratio is a strong indicator of how well controlled and monitored these expenses are for a banking enterprise. A low ratio indicates highly efficient performance. The median efficiency ratio for a peer group composed of banking institutions with assets of \$2 to \$10 billion was 56.0% for 2018. TrustCo's efficiency ratio was 53.9% in 2018, 53.7% in 2017 and 55.7% in 2016. Excluded from the efficiency ratio calculation were \$668 thousand of securities gains in 2016. In addition in 2016 the ratio excludes the gain on the sale of a branch building, and for 2017 and 2016 gains on the sale of NPL's previously mentioned were also excluded. Other real estate owned expense or income is also excluded from this calculation for all periods presented.

NONINTEREST EXPENSE

(dollars in thousands)		For the year	ar ended Decem	2018 vs. 2017				
		2018	2017	2016	A	mount	Percent	
	Φ.	40.40	40.665	26.500	Φ.	1.440	2.50/	
Salaries and employee benefits	\$	42,107	40,665	36,508	\$	1,442	3.5%	
Net occupancy expense		17,213	16,543	16,078		670	4.1	
Equipment expense		7,068	6,118	6,320		950	15.5	
Professional services		6,555	6,895	8,200		(340)	(4.9)	
Outsourced services		7,500	6,410	6,216		1,090	17.0	
Advertising expense		3,020	2,578	2,515		442	17.1	
FDIC and other insurance		2,741	4,179	5,967		(1,438)	(34.4)	
Other real estate expense, net		1,231	1,171	2,558		60	5.1	
Other		10,278	9,435	9,465		843	8.9	
Total noninterest expense	\$	97,713	93,994	93,827	\$	3,719	4.0%	

Salaries and employee benefits are the most significant component of noninterest expense. For 2018, these expenses amounted to \$42.1 million, compared with \$40.7 million in 2017 and \$36.5 million in 2016. The change in salaries and benefits in 2018 was primarily due to increases in employees related to fulfilling the agreement with the OCC. Full time equivalent headcount increased from 846 as of December 31, 2017 to 854 as of December 31, 2018.

Professional services expense was \$6.6 million in 2018, compared to \$6.9 million in 2017 and \$8.2 million in 2016. The decrease in these costs in 2017 compared to 2016 was driven by the reduced use of various consultants and experts utilized to assist with meeting the requirements of the agreement with the OCC.

FDIC and other insurance expense was \$2.7 million in 2018, \$4.2 million in 2017 and \$6.0 million in 2016. The decline in 2018 reflects the full year impact of changes in the FDIC premium structure that occurred during 2017.

Other real estate expense remained \$1.2 million in 2018, as compared to \$1.2 million in 2017 and \$2.6 million in 2016. Included in ORE expense during 2018, 2017 and 2016 were write downs of properties included in ORE totaling \$769 thousand, \$1.1 million and \$1.2 million, respectively.

Changes in other noninterest expense are the results of normal banking activities. The decrease in 2017 versus 2016 was partly the result of the one-time costs in 2016 to roll out chip card technology for TrustCo's debit cards.

Income Tax

As discussed, the Act had a significant impact on the Company's recognized tax expense in 2018. In 2018, TrustCo recognized income tax expense of \$18.2 million, as compared to \$33.6 million in 2017 (which included the \$5.1 million associated with the Tax Act), and \$25.7 million in 2016. The effective tax rates were 22.9%, 43.8% and 37.6% in 2018, 2017, and 2016, respectively. The lower effective tax rate in 2018 is due to the federal tax reform.

Contractual Obligations

The Company is contractually obligated to make the following payments on leases as of December 31, 2018:

(dollars in thousands)	Payments Due by Period:							
	Le	ss Than	1-3	3-5	More than			
	1	Year	Years	Years	5 Years	Total		
	·							
Operating leases	\$	7,799	15,177	13,721	32,722	69,419		

In addition, the Company is contractually obligated to pay data processing vendors approximately \$6 million to \$7 million per year through 2021.

Also, the Company is obligated under its various employee benefit plans to make certain payments of approximately \$1.8 to \$1.9 million per year through 2025. Additionally, the Company is obligated to pay the accumulated benefits under the Company's supplementary pension plan which amounted to \$5.4 million and \$5.6 million, respectively, as of December 31, 2018 and 2017. Actual payments under the plan are made in accordance with the plan provisions.

Impact of Inflation and Changing Prices

The Consolidated Financial Statements for the years ended 2018, 2017 and 2016 have been prepared in accordance with U.S. generally accepted accounting principles which require the measurement of financial position and operating results in terms of historical dollars without considering the changes in the relative purchasing power of money over time due to inflation. The impact of inflation is reflected in the increasing cost of operations.

Unlike most industrial companies, nearly all assets and liabilities of the Company are monetary. As a result, changes in interest rates have a greater impact on the Company's performance than do the effects of general levels of inflation, because interest rates do not necessarily move in the same direction or to the same extent as the price of goods and services.

Critical Accounting Policies and Estimates

Management's Discussion and Analysis of Financial Condition and Results of Operations is based upon the Company's consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. Note 1 to the Company's consolidated financial statements contains a summary of the Company's significant accounting policies.

Management believes that the Company's policy with respect to the methodology for the determination of the allowance for loan losses involves a higher degree of complexity and requires management to make difficult and subjective judgments, which often require assumptions or estimates about highly uncertain matters. Changes in these judgments, assumptions or estimates could materially impact results of operations. This critical policy and its application are periodically reviewed with the Audit Committee and the Board of Directors.

The provision for loan losses is based upon Management's evaluation of the adequacy of the allowance, including an assessment of known and inherent risks in the portfolio, giving consideration to the size and composition of the loan portfolio, actual loan loss experience, level of delinquencies, detailed analysis of individual loans for which full collectability may not be assured, the existence and estimated fair value of any underlying collateral and guarantees securing the loans, and current economic and market conditions. Although Management uses current and relevant information available in relation to their loan portfolio, the adequacy of the allowance for loan losses remains an estimate, which is subject to significant judgment and short-term change. Various regulatory agencies, as an integral part of their examination process, periodically review the adequacy of the Company's allowance for loan losses. Such agencies may require the Company to make additional provisions for loan losses based upon information available to them at the time of their examination. Furthermore, the majority of the Company's loans are secured by real estate in primarily New York, and Florida. Accordingly, the collectability of a substantial portion of the carrying value of the Company's loan portfolio is susceptible to changes in local market conditions and may experience adverse economic conditions. Future adjustments to the provision for loan losses and allowance for loan losses may be necessary due to economic, operating, regulatory and other conditions beyond the Company's control.

Pursuant to recent Securities and Exchange Commission ("SEC") guidance, management of the Company is encouraged to evaluate and disclose those accounting policies that are judged to be critical policies – those most important to the portrayal of the Company's financial condition and results, and that require management's most difficult subjective or complex judgments. Management considers the accounting policy relating to the allowance for loan losses to be a critical accounting policy, given the inherent uncertainty in evaluating the levels of the allowance required to cover credit losses in the portfolio and the material effect that such judgments can have on the results of operations. Included in Note 1 to the Consolidated Financial Statements contained in the Company's 2018 Annual Report on Form 10-K is a description of the significant accounting policies that are utilized by the Company in the preparation of the Consolidated Financial Statements.

Recent Accounting Pronouncements

Please refer to Note 17 to the consolidated financial statements for a detailed discussion of new accounting pronouncements and their impact on the Company.

Forward-Looking Statements

Statements included in this report and in future filings by TrustCo with the SEC, in TrustCo's press releases, and in oral statements made with the approval of an authorized executive officer, that are not historical or current facts, are "forward-looking statements" made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, and are subject to certain risks and uncertainties that could cause actual results to differ materially from historical earnings and those presently anticipated or projected. Forward-looking statements can be identified by the use of such words as may, will, should, could, would, estimate, project, believe, intend, anticipate, plan, seek, expect and similar expressions. TrustCo wishes to caution readers not to place undue reliance on any such forward-looking statements, which speak only as of the date made.

The following important factors, among others, in some cases have affected and in the future could affect TrustCo's actual results, and could cause TrustCo's actual financial performance to differ materially from that expressed in any forward-looking statement:

- TrustCo's ability to continue to originate a significant volume of one- to- four family mortgage loans in its market areas and to otherwise maintain or
 increase its market share in the areas in which it operates;
- TrustCo's ability to continue to maintain noninterest expense and other overhead costs at reasonable levels relative to income;
- TrustCo's ability to make accurate assumptions and judgments regarding the credit risks associated with its lending and investing activities, including
 changes in the level and direction of loan delinquencies and charge-offs, changes in property values, and changes in estimates of the adequacy of the
 allowance for loan and lease losses;
- the effects of and changes in, trade, monetary and fiscal policies and laws, including interest rate policies of the Board of Governors of the Federal Reserve System, inflation, interest rates, market and monetary fluctuations;
- Restrictions or conditions imposed by TrustCo's and Trustco Bank's regulators on their operations that may make it more difficult to achieve TrustCo's and Trustco Bank's goals;

- the future earnings and capital levels of TrustCo and Trustco Bank and the continued receipt of approvals from TrustCo's and Trustco Bank's primary
 federal banking regulators under regulatory rules to distribute capital from Trustco Bank to TrustCo, which could affect the ability of TrustCo to pay
 dividends:
- the results of supervisory monitoring or examinations of Trustco Bank and the Company by their respective primary federal banking regulators, including
 the possibility that the regulators may, among other things, require us to increase our loss allowances or to take other actions that reduce capital or
 income;
- adverse conditions in the securities markets that lead to impairment in the value of securities in TrustCo's investment portfolio;
- Unanticipated effects from the Tax Act that may limit its benefits or adversely impact our business[, which could include decreased demand for borrowing by our customers or increased price competition that offsets the benefits of decreased federal income tax expense;
- the perceived overall value of TrustCo's products and services by users, including the features, pricing and quality compared to competitors' products and services and the willingness of current and prospective customers to substitute competitors' products and services for TrustCo's products and services;
- changes in consumer spending, borrowing and savings habits;
- the effect of changes in financial services laws and regulations (including laws concerning taxation, banking and securities) and the impact of other governmental initiatives affecting the financial services industry, including regulatory capital requirements;
- changes in management personnel;
- real estate and collateral values;
- changes in accounting policies and practices, as may be adopted by the bank regulatory agencies Financial Accounting Standards Board ("FASB") or the Public Company Accounting Oversight Board;
- disruptions, security breaches, or other adverse events affecting the third-party vendors who perform several of our critical processing functions;
- technological changes and electronic, cyber and physical security breaches;
- changes in local market areas and general business and economic trends, as well as changes in consumer spending and saving habits;
- TrustCo's success at managing the risks involved in the foregoing and managing its business; and
- other risks and uncertainties included under "Risk Factors" in our Form 10-K for the year ended December 31, 2018.

You should not rely upon forward-looking statements as predictions of future events. Although TrustCo believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. The foregoing list should not be construed as exhaustive, and the Company disclaims any obligation to subsequently revise any forward-looking statements to reflect events or circumstances after the date of such statements, or to reflect the occurrence of anticipated or unanticipated events.

SUMMARY OF UNAUDITED QUARTERLY FINANCIAL INFORMATION

(dollars in thousands, except per share data)

			2018			2017					
	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Year	
Income statement:											
Interest and dividend income	\$ 43,497	44,815	45,738	46,864	180,914	\$ 41,052	42,108	42,788	43,012	168,960	
Interest expense	4,182	4,706	5,215	6,125	20,228	3,652	3,567	3,609	3,764	14,592	
Net interest income	39,315	40,109	40,523	40,739	160,686	37,400	38,541	39,179	39,248	154,368	
Provision for loan losses	300	300	300	500	1,400	600	550	550	300	2,000	
Net interest income after											
provison for loan losses	39,015	39,809	40,223	40,239	159,286	36,800	37,991	38,629	38,948	152,368	
Noninterest income	4,679	4,495	4,455	4,452	18,081	4,727	4,504	4,854	4,288	18,373	
Noninterest expense	24,155	24,095	24,544	24,919	97,713	24,019	22,913	23,526	23,536	93,994	
Income before income taxes	19,539	20,209	20,134	19,772	79,654	17,508	19,582	19,957	19,700	76,747	
Income tax expense	4,731	4,804	4,935	3,739	18,209	6,561	7,342	7,361	12,338	33,602	
Net income	\$ 14,808	15,405	15,199	16,033	61,445	\$ 10,947	12,240	12,596	7,362	43,145	
Per share data:											
Basic earnings	\$ 0.154	0.160	0.157	0.166	0.637	\$ 0.114	0.127	0.131	0.077	0.449	
Diluted earnings	0.153	0.160	0.157	0.166	0.636	0.114	0.127	0.131	0.076	0.448	
Cash dividends declared	0.0656	0.0656	0.0681	0.0681	0.2674	0.0656	0.0656	0.0656	0.0656	0.2625	

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FIVE YEAR SUMMARY OF FINANCIAL DATA

(dollars in thousands, except per share data)	Years ended December 31,						
		2018	2017	2016	2015	2014	
Statement of income data:							
Interest and dividend income	\$	180,914	168,960	161,359	159,345	156,941	
Interest expense		20,228	14,592	15,304	16,197	15,488	
Net interest income		160,686	154,368	146,055	143,148	141,453	
Provision for loan losses		1,400	2,000	2,950	3,700	5,100	
Net interest income after provision for loan losses		159,286	152,368	143,105	139,448	136,353	
Noninterest income		18,081	18,373	18,344	17,621	19,189	
Net gain on securities transactions		-	-	668	251	717	
Noninterest expense		97,713	93,994	93,827	90,560	84,670	
Income before income taxes		79,654	76,747	68,290	66,760	71,589	
Income taxes		18,209	33,602	25,689	24,522	27,396	
Net income	\$	61,445	43,145	42,601	42,238	44,193	
Share data:	<u> </u>	01,110	15,116	.2,001	.2,250	,155	
Average equivalent diluted shares (in thousands)		96,646	96,222	95,648	95,213	94,753	
Book value	\$	5.07	4.75	4.52	4.34	4.15	
Cash dividends	Ф	0.267	0.263	0.263	0.263	0.263	
Basic earnings		0.637	0.449	0.446	0.444	0.467	
Diluted earnings		0.636	0.448	0.445	0.444	0.466	
Financial:	_	0.050	0.440	0.443	0.777	0.400	
Return on average assets		1.25%	0.88	0.89	0.89	0.97	
Return on average shareholders' equity		13.05	9.64	9.94	10.41	11.54	
Cash dividend payout ratio		42.02	58.44	58.88	59.13	56.30	
Tier 1 capital to assets (leverage ratio)		10.13	9.45	9.11	8.85	8.55	
Tier 1 capital to assets (tevelage ratio) Tier 1 capital as a % of total risk adjusted assets		18.79	18.02	17.78	17.71	17.04	
Common equity tier 1 capital ratio		18.79	18.02	17.78	17.71	N/A	
Total capital as a % of total risk adjusted assets		20.05	19.28	19.04	18.97	18.30	
Efficiency ratio*		53.97	53.75	55.67	55.08	52.60	
Net interest margin		3.33	3.22	3.11	3.09	3.16	
Average balances:	_	0.00	3.22	5.11	3.07	5.10	
Total assets	\$	4,900,450	4,875,668	4,790,701	4,721,146	4,574,941	
Earning assets	Ψ	4,822,577	4,790,890	4,698,630	4,630,417	4,487,133	
Loans, net		3,746,082	3,514,900	3,348,324	3,234,806	3,014,156	
Allowance for loan losses		(44,651)	(44,319)	(44,718)	(46,023)	(47,409)	
Securities available for sale		547,721	617,180	627,341	657,951	794,613	
Held to maturity securities		24,801	37,929	50,975	63,730	78,356	
Federal Reserve Bank and Federal Home Loan Bank stock		8,907	9,295	9,554	9,414	10,135	
Deposits		4,206,577	4,171,396	4,149,201	4,103,505	3,978,968	
Short-term borrowings		194,810	228,086	185,672	184,725	189,430	
Shareholders' equity		470,814	447,680	428,389	405,761	382,810	

^{*} Non-GAAP figure; refer to Non-gaap financial measures reconciliation section for definition

Non-GAAP Financial Measures Reconciliation

Certain of the financial measures used in this report, such as taxable equivalent net interest income and net interest margin, and efficiency ratio, are determined by methods other than in accordance with generally accepted accounting principles ("GAAP").

Taxable Equivalent Net Interest Income and Taxable Equivalent Net Interest Margin: Net interest income is commonly presented on a taxable equivalent basis. That is, to the extent that some component of the institution's net interest income will be exempt from taxation (e.g., was received by the institution as a result of its holdings of state or municipal obligations), an amount equal to the tax benefit derived from that component is added back to the net interest income total. Management considers this adjustment helpful to investors in comparing one financial institution's net interest income (pre-tax) to that of another institution, as each will have a different proportion of tax-exempt items in their portfolios. Moreover, net interest income is itself a component of a second financial measure commonly used by financial institutions, net interest margin, which is the ratio of net interest income to average earning assets. For purposes of this measure as well, taxable equivalent net interest income is generally used by financial institutions, again to provide investors with a better basis of comparison from institution to institution. We calculate the taxable equivalent net interest margin by dividing GAAP net interest income, adjusted to include the benefit of non-taxable interest income, by average interest earnings assets.

The Efficiency Ratio: Financial institutions often use an "efficiency ratio" as a measure of expense control. The efficiency ratio typically is defined as noninterest expense divided by the sum of taxable equivalent net interest income and noninterest income. As in the case of net interest income, generally, net interest income as utilized in calculating the efficiency ratio is typically expressed on a taxable equivalent basis. Moreover, many financial institutions, in calculating the efficiency ratio, also adjust both noninterest expense and noninterest income to exclude from these items (as calculated under GAAP) certain component elements, such as other real estate expense (deducted from noninterest expense) and securities transactions (excluded from noninterest income). We calculate the efficiency ratio by dividing total noninterest expenses as determined under GAAP, as adjusted, by net interest income (fully taxable equivalent) and total noninterest income as determined under GAAP, as adjusted, as stated in the table below.

We believe that these non-GAAP financial measures provide information that is important to investors and that is useful in understanding the Company's financial position, results and ratios. Management internally assesses our performance based, in part, on these measures. However, these non-GAAP financial measures are supplemental and are not a substitute for an analysis based on GAAP measures. As other companies may use different calculations for these measures, this presentation may not be comparable to other similarly titled measures reported by other companies. A reconciliation of the non-GAAP measures of tangible book value per share, efficiency ratio, and taxable equivalent net interest income and net interest margin to the underlying GAAP financial measures is set forth below.

(dollars in thousands, except per share amounts) (Unaudited)

	Years ended							
Taxable Equivalent Net Interest Margin	12/31/18	12/31/17	12/31/16	12/31/15	12/31/14			
Net interest income	160,686	154,368	146,055	143,148	141,453			
Taxable Equivalent Adjustment	12	45	54	74	130			
Net interest income (Taxable Equivalent)	160,698	154,413	146,109	143,222	141,583			
Total Interest Earning Assets	4,822,577	4,790,890	4,698,630	4,630,417	4,487,133			
Net Interest Margin	3.33%	3.22%	3.11%	3.09%	3.15%			
Taxable Equivalent Net Interest Margin	3.33%	3.22%	3.11%	3.09%	3.16%			
		Years ended						
Efficiency Ratio	12/31/18	12/31/17	12/31/16	12/31/15	12/31/14			
Net interest income (fully taxable equivalent)	160,698	154,413	146,109	143,222	141,583			
Non-interest income	18,081	18,373	19,012	17,872	19,906			
Less: Net gain on securities	-	-	668	251	717			
Less: Net gain on sale of building and net gain on sale of								
nonperforming loans		84	493	60	1,719			
Revenue used for efficiency ratio	178,779	172,702	163,960	160,783	159,053			
Total Noninterest expense	97,713	93,994	93,827	90,560	84,670			
Less: Other real estate expense, net	1,231	1,171	2,558	2,001	1,009			
Expenses used for efficiency ratio	96,482	92,823	91,269	88,559	83,661			
Efficiency Ratio	53.97%	53.75%	55.67%	55.08%	52.60%			

Glossary of Terms

Allowance for Loan Losses:

A balance sheet account which represents management's estimate of probable credit losses in the loan portfolio. The provision for loan losses is added to the allowance account, charge offs of loans decrease the allowance balance and recoveries on previously charged off loans serve to increase the balance.

Basic Earnings Per Share:

Net income divided by the weighted average number of common shares outstanding (including participating securities) during the period.

Cash Dividends Per Share:

Total cash dividends for each share outstanding on the record dates.

Common equity tier 1 capital ratio

Common equity Tier 1 capital to risk weighted assets

Comprehensive Income:

Net income plus the change in selected items recorded directly to capital such as the net change in unrealized market gains and losses on securities available for sale and the overfunded/underfunded positions in the retirement plans.

Core Deposits:

Deposits that are traditionally stable, including all deposits other than time deposits of \$250,000 or more.

Derivative Investments:

Investments in futures contracts, forwards, swaps, or other investments with similar characteristics.

Diluted Earnings Per Share:

Net income divided by the weighted average number of common shares outstanding during the period, taking into consideration the effect of any dilutive stock options.

Earning Assets:

The sum of interest-bearing deposits with banks, securities available for sale, securities held to maturity, trading securities, loans, net of unearned income, and Federal Funds sold and other short-term investments.

Efficiency Ratio:

Noninterest expense (excluding other real estate expense) divided by taxable equivalent net interest income plus noninterest income (excluding securities transactions and other component income items). This is an indicator of the total cost of operating the Company in relation to the total income generated.

Federal Funds Sold:

A short-term (generally one business day) investment of excess cash reserves from one bank to another.

Government Sponsored Enterprises ("GSE"):

Corporations sponsored by the United States government and include the Federal Home Loan Bank (FHLB), the Federal Home Loan Mortgage Corporation (FHLMC or Freddie Mac), the Federal National Mortgage Association (FNMA or Fannie Mae) and the Small Business Administration (SBA).

Impaired Loans:

Loans, principally commercial, where it is probable that the borrower will be unable to make the principal and interest payments according to the contractual terms of the loan, and all loans considered TDRs.

Glossary of Terms (continued)

Interest Bearing Liabilities:

The sum of interest bearing deposits, Federal Funds purchased, securities sold under agreements to repurchase, short-term borrowings, and long-term debt.

Interest Rate Spread:

The difference between the taxable equivalent yield on earning assets and the rate paid on interest bearing liabilities.

Liquidity:

The ability to meet loan commitments, deposit withdrawals, and maturing borrowings as they come due.

Net Interest Income:

The difference between income on earning assets and interest expense on interest bearing liabilities.

Net Interest Margin:

Fully taxable equivalent net interest income as a percentage of average earning assets.

Net Loans Charged Off:

Reductions to the allowance for loan losses written off as losses, net of the recovery of loans previously charged off.

Nonaccrual Loans:

Loans for which no periodic accrual of interest income is recognized.

Nonperforming Assets:

The sum of nonperforming loans plus foreclosed real estate properties.

Nonperforming Loans:

The sum of loans in a nonaccrual status (for purposes of interest recognition), plus accruing loans three payments or more past due as to principal or interest payments.

Parent Company:

A company that owns or controls a subsidiary through the ownership of voting stock.

Real Estate Owned:

Real estate acquired through foreclosure proceedings.

Return on Average Assets:

Net income as a percentage of average total assets.

Return on Average Equity:

Net income as a percentage of average equity.

Risk-Adjusted Assets:

A regulatory calculation that assigns risk factors to various assets on the balance sheet.

Risk-Based Capital:

The amount of capital required by federal regulatory standards, based on a risk-weighting of assets.

Glossary of Terms (continued)

Subprime Loans:

Loans, including mortgages, that are underwritten based on non-traditional guidelines or structured in non-traditional ways, typically with the goal of facilitating the approval of loans that more conservative lenders would likely decline.

Tangible Book Value Per Share:

Total shareholders' equity (less goodwill) divided by shares outstanding on the same date. This provides an indication of the tangible book value of a share of stock.

Taxable Equivalent ("TE"):

Tax exempt income that has been adjusted to an amount that would yield the same after tax income had the income been subject to taxation at the statutory federal and/or state income tax rates.

Tier 1 Capital:

Total shareholders' equity excluding accumulated other comprehensive income.

Troubled Debt Restructurings (TDRs):

A refinanced loan in which the bank allows the borrower certain concessions that would normally not be considered. The concessions are made in light of the borrower's financial difficulties and the bank's objective to maximize recovery on the loan. TDRs are considered impaired loans.

Management's Report on Internal Control over Financial Reporting

The management of TrustCo Bank Corp NY is responsible for establishing and maintaining adequate internal control over financial reporting. TrustCo'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 accounting principles generally accepted in the United States of America.

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.

Management has completed an assessment of TrustCo Bank Corp NY's internal control over financial reporting as of December 31, 2018. In making this assessment, we used the criteria set forth by the 2013 Internal Control - Integrated Framework promulgated by the Committee of Sponsoring Organizations of the Treadway Commission, commonly referred to as the "COSO" criteria. Based on our assessment, we believe that, as of December 31, 2018, the Company maintained effective internal control over financial reporting.

The Company's internal control over financial reporting as of December 31, 2018 has been audited by Crowe LLP, the Company's independent registered public accounting firm, as stated in their report which is included herein.

Robert J. McCormick

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Chairman, President, and Chief Executive Officer

Michael M. Ozimek

Executive Vice President, and Chief Financial Officer

March 1, 2019



REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Shareholders and the Board of Directors of Trustco Bank Corp NY Glenville, New York

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated statements of condition of Trustco Bank Corp NY (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control – Integrated Framework: (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control – Integrated Framework: (2013) issued by COSO.

Basis for Opinions

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements 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 audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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/ Crowe LLP

We have served as the Company's auditor since 2009.

New York, New York March 1, 2019

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TRUSTCO BANK CORP NY

Consolidated Statements of Income

(dollars in thousands, except per share data)

	Year	31,	
	2018	2017	2016
Interest and dividend income: Interest and fees on loans	\$ 158,304	148,133	143,679
Interest and dividends on securities available for sale:	\$ 130,304	140,133	143,077
U. S. government sponsored enterprises	3,112	2,281	1,489
State and political subdivisions	22	39	52
Mortgage-backed securities and collateralized mortgage obligations-residential	6,593	7,447	7,963
Corporate bonds	687	606	246
Small Business Administration-guaranteed participation securities	1,339	1,547	1,801
Mortgage-backed securities and collateralized mortgage obligations-commercial	37	109	133
Other	18	16	16
Total interest and dividends on securities available for sale	11,808	12,045	11,700
Interest on held to maturity securities:	0.62	1 140	1 454
Mortgage-backed securities and collateralized mortgage obligations-residential	962	1,149	1,454
Corporate bonds		410	617
Total interest on held to maturity securities	962	1,559	2,071
Federal Reserve Bank and Federal Home Loan Bank stock	564	544	502
Interest on federal funds sold and other short-term investments	9,276	6,679	3,407
Total interest and dividend income	180,914	168,960	161,359
Interest expense:			
Interest on deposits	18,958	13,190	14,213
Interest on short-term borrowings	1,270	1,402	1,091
Total interest expense	20,228	14,592	15,304
Net interest income	1(0 (0)	154.269	146.055
Provision for loan losses	160,686	154,368	146,055
	1,400	2,000	2,950
Net interest income after provision for loan losses	159,286	152,368	143,105
Noninterest income:			
Trustco Financial Services income	6,283	6,584	5,886
Fees for services to customers	10,912	10,798	10,857
Net gain on securities transactions	-	-	668
Other	886	991	1,601
Total noninterest income	18,081	18,373	19,012
Noninterest symances			
Noninterest expense: Salaries and employee benefits	42,107	40,665	36,508
Net occupancy expense	17,213	16,543	16,078
Equipment expense	7,068	6,118	6,320
Professional services	6,555	6,895	8,200
Outsourced services	7,500	6,410	6,216
Advertising expense	3,020	2,578	2,515
FDIC and other insurance expense	2,741	4,179	5,967
Other real estate expense, net	1,231	1,171	2,558
Other	10,278	9,435	9,465
Total noninterest expense	97,713	93,994	93,827
		75,771	75,021
Income before income taxes	79,654	76,747	68,290
Income taxes	18,209	33,602	25,689
Net income	\$ 61,445	43,145	42,601
Earnings per share: Basic	\$ 0.637	0.449	0.446
Diluted	\$ 0.637 0.636	0.449	0.446
Diulicu	0.030	0.440	0.443

Consolidated Statements of Comprehensive Income

(dollars in thousands, except per share data)

		,		
		2018	2017	2016
Net income	\$	61,445	43,145	42,601
Net unrealized holding (loss) gain on securities available for sale		(5,328)	2,524	(3,096)
Reclassification adjustments for net gain recognized in income		-	-	(688)
Tax effect		1,384	(792)	1,514
Net unrealized (loss) gain on securities available for sale, net of tax		(3,944)	1,732	(2,270)
Change in overfunded position in pension and postretirement plans arising during the year		(3,684)	3,824	1,333
Tax effect		957	(812)	(533)
Change in overfunded position in pension and postretirement plans arising during the year, net of tax		(2,727)	3,012	800
Amortization of net actuarial gain		(556)	(289)	(90)
Amortization of prior service (benefit) cost		(100)	90	90
Tax effect		170	(100)	-
Amortization of net actuarial gain and prior service credit on pension and postretirement plans, net of				
tax		(486)	(299)	<u>-</u>
Other comprehensive (loss) income, net of tax		(7,157)	4,445	(1,470)
Comprehensive income	\$	54,288	47,590	41,131

TRUSTCO BANK CORP NY

Consolidated Statements of Condition

(dollars in thousands, except per share data)

Cash and due from banks Federal funds sold and other short term investments Total cash and cash equivalents Securities available for sale Held to maturity securities (\$22,924 and \$28,701 fair value at December 31, 2018 and 2017, respectively) Federal Reserve Bank and Federal Home Loan Bank stock Loans, net of deferred net costs Less: Allowance for loan losses Net loans Bank premises and equipment, net	\$	49,260 454,449 503,709 501,463 22,501 8,953 3,874,096 44,766	2017 44,125 568,615 612,740 571,965 27,551 8,779 3,636,407
Cash and due from banks Federal funds sold and other short term investments Total cash and cash equivalents Securities available for sale Held to maturity securities (\$22,924 and \$28,701 fair value at December 31, 2018 and 2017, respectively) Federal Reserve Bank and Federal Home Loan Bank stock Loans, net of deferred net costs Less: Allowance for loan losses Net loans Bank premises and equipment, net	\$	454,449 503,709 501,463 22,501 8,953 3,874,096 44,766	568,615 612,740 571,965 27,551 8,779 3,636,407
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Federal funds sold and other short term investments Total cash and cash equivalents Securities available for sale Held to maturity securities (\$22,924 and \$28,701 fair value at December 31, 2018 and 2017, respectively) Federal Reserve Bank and Federal Home Loan Bank stock Loans, net of deferred net costs Less: Allowance for loan losses Net loans Bank premises and equipment, net		454,449 503,709 501,463 22,501 8,953 3,874,096 44,766	568,615 612,740 571,965 27,551 8,779 3,636,407
Total cash and cash equivalents Securities available for sale Held to maturity securities (\$22,924 and \$28,701 fair value at December 31, 2018 and 2017, respectively) Federal Reserve Bank and Federal Home Loan Bank stock Loans, net of deferred net costs Less: Allowance for loan losses Net loans Bank premises and equipment, net		503,709 501,463 22,501 8,953 3,874,096 44,766	612,740 571,965 27,551 8,779 3,636,407
Securities available for sale Held to maturity securities (\$22,924 and \$28,701 fair value at December 31, 2018 and 2017, respectively) Federal Reserve Bank and Federal Home Loan Bank stock Loans, net of deferred net costs Less: Allowance for loan losses Net loans Bank premises and equipment, net	_	501,463 22,501 8,953 3,874,096 44,766	571,965 27,551 8,779 3,636,407
Held to maturity securities (\$22,924 and \$28,701 fair value at December 31, 2018 and 2017, respectively) Federal Reserve Bank and Federal Home Loan Bank stock Loans, net of deferred net costs Less: Allowance for loan losses Net loans Bank premises and equipment, net	_	22,501 8,953 3,874,096 44,766	27,551 8,779 3,636,407
Federal Reserve Bank and Federal Home Loan Bank stock Loans, net of deferred net costs Less: Allowance for loan losses Net loans Bank premises and equipment, net	_	8,953 3,874,096 44,766	8,779 3,636,407
Loans, net of deferred net costs Less: Allowance for loan losses Net loans Bank premises and equipment, net	_	3,874,096 44,766	3,636,407
Less: Allowance for loan losses Net loans Bank premises and equipment, net		44,766	
Net loans Bank premises and equipment, net		,	
Bank premises and equipment, net			44,170
		3,829,330	3,592,237
		34,694	35,157
Other assets		58,263	59,579
Total assets	\$	4,958,913	4,908,008
LIABILITIES AND SHAREHOLDERS' EQUITY			
Deposits:			
Demand	\$	405,069	398,399
Savings accounts	Ψ	1,182,683	1,260,447
Interest-bearing checking		904,678	891,052
Money market deposit accounts		507,311	556,462
Time accounts		1,274,506	1,066,966
Total deposits		4,274,247	4,173,326
Short-term borrowings		161,893	242,991
Accrued expenses and other liabilities		32,902	33,383
Total liabilities		4,469,042	4,449,700
		, ,	
Commitments and contingent liabilities			
SHAREHOLDERS' EQUITY:			
Capital stock: \$1 par value; 150,000,000 shares authorized, 100,175,032 and 99,998,482 shares issued at December 31,			
2018 and 2017, respectively		100,175	99,998
Surplus		176,710	175,651
Undivided profits		256,397	219,436
Accumulated other comprehensive loss, net of tax		(10,309)	(1,806)
Treasury stock: 3,516,440 and 3,709,171 shares, at cost, at December 31, 2018 and 2017, respectively		(33,102)	(34,971
Total shareholders' equity		489,871	458,308
Total liabilities and shareholders' equity	S	4,958,913	4,908,008

Consolidated Statements of Changes in Shareholders' Equity

(dollars in thousands, except per share data)

				Accumulated		
	Capital		Undivided	Other Comprehensive	Treasury	
	Stock	Surplus	Profits	Loss	Stock	Total
	 Stock	Surpius	1101113	LOSS	Stock	Total
Beginning balance, January 1, 2016	98,973	171,443	184,009	(4,781)	(36,334)	413,310
Net Income	-	-	42,601	-	-	42,601
Change in other comprehensive loss, net of						
tax	-	-	-	(1,470)	-	(1,470)
Stock option exercises	241	1,127	-	-	-	1,368
Cash dividend declared, \$.2625 per share	-	-	(25,093)	-	-	(25,093)
Purchase of treasury stock (22,364 shares)	-	-	-	-	(701)	(701)
Sale of treasury stock (398,431 shares)	-	(1,369)	-	-	3,816	2,447
Stock based compensation expense	-	224	-	-	-	224
Ending balance, December 31, 2016	\$ 99,214	171,425	201,517	(6,251)	(33,219)	432,686
Net Income		_	43,145		_	43,145
Change in other comprehensive income			75,175			73,173
(loss), net of tax	_	_	_	4,445	_	4,445
Stock option exercises	784	4,452	<u>_</u>	1,115	<u>_</u>	5,236
Cash dividend declared, \$.2625 per share	-	1,102	(25,226)	_	_	(25,226)
Purchase of treasury stock (574,256 shares)	-	-	(20,220)	-	(4,608)	(4,608)
Sale of treasury stock (299,290 shares)	_	(376)	_	_	2,856	2,480
Stock based compensation expense	-	150	-	-	-,000	150
Ending balance, December 31, 2017	\$ 99,998	175,651	219,436	(1,806)	(34,971)	458,308
Net income	-	-	61,445	-	-	61,445
Tax Cuts and Jobs Act of 2017,						
Reclassification from AOCI to Retained						
Earnings, Tax Effect	-	-	1,346	(1,346)	-	_
Other comprehensive loss, net of tax	-	-	-	(7,157)	-	(7,157)
Stock options exercises	177	1,082	-	-	-	1,259
Cash dividend declared, \$0.2675 per share	-	-	(25,830)	-	-	(25,830)
Purchase of treasury stock (81,940 shares)	-	-	-	-	(718)	(718)
Sale of treasury stock (274,671 shares)	-	(196)	-	-	2,587	2,391
Stock based compensation expense	-	173	-	-	-	173
Ending balance, December 31, 2018	\$ 100,175	176,710	256,397	(10,309)	(33,102)	489,871

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TRUSTCO BANK CORP NY

Consolidated Statements of Cash Flows

(dollars in thousands, except per share data)

	Year	·,	
	2018	2017	2016
Cash flows from operating activities:			
Net income	\$ 61,445	43,145	42,601
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	4,109	3,816	4,038
Net gain on sale of other real estate owned	(613)	(924)	(298
Writedown of other real estate owned	769	1,071	1,242
Provision for loan losses	1,400	2,000	2,950
Deferred tax (benefit) expense	2,556	(183)	3,261
Net amortization of securities	3,147	4,326	4,986
Stock based compensation expense	173	150	224
Net (gain) loss on sale of bank premises and equipment	(1)	43	(480
Net gain on securities transactions	-	-	(668
Decrease (increase) in taxes receivable	1,683	6,124	(921
Decrease (increase) in interest receivable	100	(371)	(808)
Increase in interest payable	487	11	25
Increase in other assets	(6,386)	(310)	(1,677
Decrease (increase) in accrued expenses and other liabilities	(1,229)	2,792	419
Total adjustments	6,195	18,545	12,293
Net cash provided by operating activities	67,640	61,690	54,894
Cash flows from investing activities:			
Proceeds from sales, paydowns and calls of securities available for sale	78,230	124,624	245,929
Purchases of securities available for sale	(61,807)	(83,031)	(275,303
Proceeds from maturities of securities available for sale	45,604	5,000	1,949
Proceeds from calls and maturities of held to maturity securities	5,050	17,939	10,975
Purchases of Federal Reserve Bank and Federal Home Loan Bank stock	(174)	(143)	(99
Proceeds from redemptions of Federal Reserve Bank and Federal Home Loan Bank stock	_	943	
Net increase in loans	(241,149)	(212,028)	(146,629
Proceeds from dispositions of other real estate owned	4,071	5,362	6,768
Proceeds from dispositions of bank premises and equipment	1	63	674
Purchases of bank premises and equipment	(3,646)	(3,613)	(2,055
Net cash used in investing activities	(173,820)	(144,884)	(157,791
Cash flows from financing activities:		, ,	
Net increase in deposits	100,921	(22,837)	95,785
Net change in short-term borrowings	(81,098)	33,585	18,180
Proceeds from exercise of stock options	1,259	5,237	1,368
Stock based award tax withholding payments	(37)	-	1,500
Proceeds from sales of treasury stock	2,391	2,480	2,447
Purchases of treasury stock	(718)	(4,608)	(701
Dividends paid	(25,569)	(25,197)	(25,064
Net cash (used in) provided by financing activities	(2,851)	(11,340)	92,015
Net (decrease) increase in cash and cash equivalents	(109,031)	(94,534)	(10,882
Cash and cash equivalents at beginning of period	612,740	707,274	718,156
Cash and cash equivalents at end of period	\$ 503,709	612,740	707,274

Supplemental Disclosure of Cash Flow Information:

Cash	paid	during	the y	ear fo	r:

cush para daring the year for.			
Interest paid	\$ 19,741	14,581	15,279
Income taxes paid	16,359	26,127	23,494
Non cash investing and financing activites:			
Transfer of loans to real estate owned	2,656	4,487	5,525
Increase in dividends payable	261	29	29
Change in unrealized (loss) gain on securities available for sale - gross of deferred taxes	(5,328)	2,524	(3,784)
Change in deferred tax effect on unrealized gain (loss) on securities available for sale, net of			
reclassification adjustment	1,384	(792)	1,514
Amortization of net actuarial loss and prior service credit on pension and post retirement plans, gross			
of deferred taxes	(656)	(199)	-
Change in deferred tax effect of amortization of net actuarial loss and prior service credit on pension			
and post retirement plans	170	(100)	-
Change in overfunded portion of pension and post retirement benefit plans (ASC 715) - gross of			
deferred taxes	(3,684)	3,824	1,333
Deferred tax effect of change in overfunded portion of pension and post retirement benefit plans (ASC			
715)	957	(812)	(533)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(1) Basis of Presentation

The accounting and financial reporting policies of TrustCo Bank Corp NY (the Company or TrustCo), ORE Subsidiary Corp., Trustco Bank (referred to as Trustco Bank or the Bank), and its wholly owned subsidiaries, Trustco Realty Corporation, Trustco Insurance Agency, Inc., ORE Property, Inc. and its subsidiaries ORE Property One, Inc. and ORE Property Two, Inc. conform to general practices within the banking industry and are in conformity with U.S. generally accepted accounting principles. A description of the more significant policies follows.

Consolidation

The consolidated financial statements of the Company include the accounts of the subsidiaries after elimination of all significant intercompany accounts and transactions.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Securities Available for Sale and Held to Maturity

Securities available for sale are carried at fair value with any unrealized appreciation or depreciation of value, net of tax, included as an element of accumulated other comprehensive income or loss in shareholders' equity. Management maintains an available for sale portfolio in order to provide maximum flexibility in balance sheet management. The designation of available for sale is made at the time of purchase based upon management's intent to hold the securities for an indefinite period of time. These securities, however, are available for sale in response to changes in market interest rates, related changes in liquidity needs, or changes in the availability of and yield on alternative investments. Unrealized losses on securities that reflect a decline in value which is other-than-temporary, if any, are charged to earnings and/or accumulated other comprehensive income (loss).

Debt securities that management has the positive intent and ability to hold until maturity are classified as held to maturity and are carried at their remaining unpaid principal balance, net of unamortized premiums or unaccreted discounts.

The cost of debt securities is adjusted for amortization of premium and accretion of discount using the interest method. Premiums and discounts on securities are amortized on the interest method over the estimated remaining term of the underlying security without anticipating prepayments, except for mortgage backed securities where prepayments are anticipated.

Gains and losses on the sale of securities available for sale are recorded at trade date and determined using the specific identification method.

Other-Than-Temporary-Impairment ("OTTI")

A decline in the fair value of any available for sale or held to maturity security below cost that is deemed to be other than temporary is charged to earnings and/or accumulated other comprehensive income (loss), resulting in the establishment of a new cost basis of the security. Management evaluates these types of securities for OTTI at least on a quarterly basis, and more frequently when economic or market conditions warrant such an evaluation. Additional discussion of OTTI is included in Note 3 of the consolidated financial statements.

Federal Reserve Bank (FRB) and Federal Home Loan Bank (FHLB) stock

The Bank is a member of the FHLB system. Members are required to own a certain amount of stock based on the level of borrowings and other factors, and may invest in additional amounts. FHLB stock is carried at cost, classified as a restricted security, and periodically evaluated for impairment based on ultimate recovery of par value. Dividends are reported as income. The Bank is also a member of its regional Federal Reserve Bank. FRB stock is carried at cost, classified as a restricted security, and periodically evaluated for impairment based on ultimate recovery of par value. Any dividends received are reported as income.

Loans

Loans are carried at the principal amount outstanding net of unearned income and unamortized loan fees and costs, which are recognized as adjustments to interest income over the applicable loan term. Interest income on loans is accrued based on the principal amount outstanding.

Nonperforming loans include non-accrual loans and loans which are three payments or more past due and still accruing interest. Generally, loans are placed in non-accrual status either due to the delinquent status of principal and/or interest payments, or a judgment by management that, although payments of principal and/or interest are current, such action is prudent based upon specific facts and circumstances surrounding the borrower. Typically, a loan is moved to non-accrual status after 90 days of non-payment in accordance with the Company's policy. Past due status is based on the contractual terms of the loan. All interest accrued but not received for loans placed on non-accrual status is reversed against interest income. Future payments received on nonperforming loans are recorded as interest income or principal reductions based upon management's ultimate expectation for collection. Loans may be removed from non-accrual status when they become current as to principal and interest and have demonstrated a sustained ability to make loan payments in accordance with the contractual terms of the loan. Loans may also be removed from non-accrual status when, in the opinion of management, the loan is expected to be fully collectable as to principal and interest. When, in the opinion of management, the collection of principal appears unlikely, the loan balance is evaluated in light of its sources of repayment, and a charge-off is recorded when appropriate.

Loan origination fees, net of certain direct origination costs, are deferred and recognized using the level yield method without anticipating prepayments.

Allowance for Loan Losses

The allowance for loan losses is maintained at a level considered adequate by management to provide for probable incurred loan losses. The allowance is increased by provisions charged against income, while loan losses are charged against the allowance when management deems a loan balance to be uncollectible. Subsequent recoveries, if any, are credited to the allowance.

The Company performs an analysis of the adequacy of the allowance on at least a quarterly basis. Management estimates the allowance balance required using past loan loss experience, the nature and volume of the portfolio, information about specific borrower situations, current economic conditions, past due and charge-off trends and other factors. In addition, various regulatory agencies, as an integral part of their examination process, periodically review the Company's allowance for loan losses. Such agencies may require the Company to change the allowance based on their judgments of information available to them at the time of their examination. Allocations of the allowance may be made for specific loans, but the entire allowance is available for any loan that, in management's judgment, should be charged off. The allowance methodology consists of specific and general components. The specific component relates to loans that are individually classified as impaired.

A loan is impaired when, based on current information and events, it is probable that the Company will be unable to collect all amounts due according to the contractual terms of the loan agreement. Additionally, loans for which the terms have been modified resulting in a concession, and for which the borrower is experiencing financial difficulties, are considered troubled debt restructurings (TDR's) and classified as impaired.

Factors considered by management in determining impairment include payment status, collateral value, and the probability of collecting scheduled principal and interest payments when due. Loans that experience insignificant payment delays and payment shortfalls generally are not classified as impaired. Management determines the significance of payment delays and 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.

TDR's are measured at the present value of estimated future cash flows using the loan's effective rate at inception. If a TDR is considered to be a collateral dependent loan, the loan is reported at the fair value of the collateral with any charge-off recognized at that time. For TDR's that subsequently default, the Company determines the amount of additional charge-off, if any, in accordance with the accounting policy for the allowance for loan losses with respect to impaired loans described previously.

Commercial and commercial real estate loans in non-accrual status are defined as impaired loans and are individually evaluated for impairment. In addition, any restructured loans that meet the definition of a TDR are defined as impaired. If a loan is impaired, a charge-off is taken so that the loan is reported at the present value of estimated future cash flows using the loan's existing rate or at the fair value of collateral, if repayment is expected solely from the collateral. Residential real estate loans and consumer loans are collectively evaluated for impairment.

The general component of the allowance covers non-impaired loans and is based on historical loss experience adjusted for current factors. The historical loss experience is determined by geography for each portfolio segment and is based on the actual net loss history experienced by the Company over the most recent four years. This actual loss experience is supplemented with other qualitative factors based on the risks present in each geography and portfolio segment. These factors include consideration of the following: changes in national, regional and local economic trends and conditions; effects of any changes in interest rates; changes in the volume and severity of net charge-offs, delinquencies, and nonperforming loans; changes in the experience, ability, and depth of lending management and other relevant staff; changes in the quality of the Company's loan review system; effects of any changes in credit concentrations; effects of any changes in underwriting standards, lending policies, procedures, and practices; and changes in the nature, volume and terms of loans. Changes in the volume and severity of net charge-offs, delinquencies, and nonperforming loans includes consideration of levels and trends of loan delinquencies and net charge-offs by portfolio segment. The determination of qualitative factors involves significant judgement, and the use of subjective measurement.

The Company's allowance methodology also includes additional allocation percentages for residential and installment loans in non-accrual status and residential and installment loans three payments past due and still accruing interest, and residential loans with loan-to-value ratios in excess of 90% at the time of origination. Additional allocation percentages are applied to commercial loans classified as special mention and substandard by the Company's loan review grading process that are not considered as impaired to recognize the added risk associated with these loans. The reserve percentages are determined based upon a review of recent charge-offs and take into consideration the type of loan, the fixed or variable nature of the loan, and the type and geography of the underlying collateral, if any, specifically for loans that are in these categories.

The following portfolio segments have been identified: commercial loans, residential real estate loans, and installment loans:

Commercial: Commercial real estate loans and other commercial loans are made based primarily on the identified cash flow of the borrower and secondarily on the underlying collateral provided by the borrower. Commercial real estate collateral is generally located within the Bank's geographic territories; while collateral for non-real estate secured commercial loans is typically accounts receivable, inventory, and/or equipment. Repayment is primarily dependent upon the borrower's ability to service the debt based upon cash flows generated from the underlying business. Additional support involves liquidation of the pledged collateral and enforcement of a personal guarantee, if a guarantee is obtained.

Residential real estate: Residential real estate loans, including first mortgages, home equity loans and home equity lines of credit, are collateralized by first or second liens on one-to-four family residences generally located within the Bank's market areas. Proof of ownership title, clear mortgage title, and hazard insurance coverage are normally required.

<u>Installment:</u> The Company's installment loans are primarily made up of installment loans, personal lines of credit, as well as secured and unsecured credit cards. The installment loans represent a relatively small portion of the loan portfolio and are primarily used for personal expenses and are secured by automobiles, equipment and other forms of collateral, while personal lines of credit are unsecured as are most credit card loans.

Bank Premises and Equipment

Premises and equipment are stated at cost less accumulated depreciation. Depreciation is computed on either the straight-line or accelerated methods over the remaining useful lives of the assets; generally 20 to 40 years for buildings, 3 to 7 years for furniture and equipment, and the shorter of the estimated life of the asset or the lease term for leasehold improvements.

Other Real Estate Owned

Assets that are acquired through or instead of foreclosure are initially recorded at fair value less costs to sell. These assets are subsequently accounted for at the lower of cost or fair value less costs to sell. Subsequent write downs and gains and losses on sale are included in noninterest expense. Operating costs after acquisition are also included in noninterest expense. At December 31, 2018 and 2017, there were \$1.7 million and \$3.2 million, respectively, of other real estate owned included in the category of Other Assets in the accompanying Consolidated Statements of Condition.

Income Taxes

Deferred taxes are recorded for the future tax consequences of events that have been recognized in the financial statements or tax returns based upon enacted tax laws and rates. Deferred tax assets are recognized subject to management's judgment that realization is more likely than not. The amount recognized is the largest amount of tax benefit that has a greater than 50% likelihood of being realized on examination. For tax positions not meeting the "more likely than not" test, no benefit is recorded.

Dividend Restrictions

The Company's ability to pay dividends to its shareholders is dependent upon the ability of the Bank to pay dividends to the Company. The payment of dividends by the Bank to the Company is subject to continued compliance with minimum regulatory capital requirements and the filing of notices or applications with the Bank's and the Company's regulators. The Bank's primary regulator may disapprove a dividend if: the Bank would be undercapitalized following the distribution; the proposed capital distribution raises safety and soundness concerns; or the capital distribution would violate a prohibition contained in any statue, regulator or agreement between the Bank and a regulator or a condition imposed in a previously approved application or notice. Currently the Bank meets the regulatory definition of a well-capitalized institution. During 2019, the Bank could declare dividends of approximately \$85.8 million plus any 2019 net profits retained to the date of the dividend declaration.

Benefit Plans

The Company has a defined benefit pension plan covering substantially all of its employees. The benefits are based on years of service and the employee's compensation. This plan was frozen as of December 31, 2006.

The Company has a postretirement benefit plan that permits retirees under age 65 to participate in the Company's medical plan by which retirees pay all of their premiums.

Under certain employment contracts with selected executive officers, the Company is obligated to provide postretirement benefits to these individuals once they attain certain vesting requirements.

The Company recognized in the Consolidated Statement of Condition the funded status of the pension plan and postretirement benefit plan with an offset, net of tax, recorded in accumulated other comprehensive loss.

Stock-Based Compensation Plans

The Company has stock-based compensation plans for employees and directors. Compensation cost is recognized for stock options and restricted stock awards issued to employees and directors based on the fair value of these awards at the date of grant. A Black-Scholes model is utilized to estimate the fair value of stock options while, for restricted stock awards, the fair value of the Company's common stock at the date of grant is used.

Compensation cost for stock options and restricted stock awards to be settled in stock are recognized over the required service period generally defined as the vesting period. The expense is recognized over the shorter of each award's vesting period or the retirement date for any awards that vest immediately upon eligible retirement

Awards to be settled in cash based on the fair value of the Company's stock at vesting are treated as liability based awards.

Compensation costs for liability based awards are re-measured at each reporting date and recognized over the vesting period. For awards with performance based conditions, compensation cost is recognized over the performance period based on the Company's expectation of the likelihood of meeting the specific performance criteria.

Earnings Per Share

Basic earnings per common share is net income divided by the weighted average number of common shares outstanding during the period. All outstanding unvested share-based payment awards that contain rights to non-forfeitable dividends are considered participating securities for this calculation. Diluted earnings per common share includes the dilutive effect of additional potential common shares issuable under stock options. At December 31, 2018, 2017, and 2016, the Company did not have any unvested awards that would be considered participating securities.

Segment Reporting

The Company's operations are exclusively in the financial services industry and include the provision of traditional banking services. Management evaluates the performance of the Company based on only one business segment, that of community banking. The Company operates primarily in the geographical region of Upstate New York with branches also in Florida and the mid-Hudson valley region of New York. In the opinion of management, the Company does not have any other reportable segments as defined by "Accounting Standards Codification" (ASC) Topic 280, "Disclosure about Segments of an Enterprise and Related Information."

Cash and Cash Equivalents

The Company classifies cash on hand, cash due from banks, Federal Funds sold, and other short-term investments as cash and cash equivalents for disclosure purposes.

Trust Assets

Assets under management with the Trustco Financial Services Department are not included in the Company's consolidated financial statements because Trustco Financial Services holds these assets in a fiduciary capacity.

Comprehensive Income (Loss)

Comprehensive income (loss) represents the sum of net income and items of other comprehensive income or loss, which are reported directly in shareholders' equity, net of tax, such as the change in net unrealized gain or loss on securities available for sale and changes in the funded position of the pension and postretirement benefit plans. Accumulated other comprehensive income or loss, which is a component of shareholders' equity, represents the net unrealized gain or loss on securities available for sale, net of tax and the funded position in the Company's pension plan and postretirement benefit plans, net of tax.

Fair Value of Financial Instruments

Fair values of financial instruments are estimated using relevant market information and other assumptions, as more fully disclosed in Note 13. Fair value estimates involve uncertainties and matters of significant judgment regarding interest rates, credit risk, prepayments, and other factors, especially in the absence of broad markets for particular items. Changes in assumptions or in market conditions could significantly affect these estimates.

(2) Balances at Other Banks

The Company is required to maintain certain reserves of vault cash and/or deposits with the Federal Reserve Bank. The amount of this reserve requirement, included in cash and due from banks and federal funds sold and other short-term investments, was approximately \$ 35.8 million and \$34.5 million at December 31, 2018 and 2017, respectively.

December 31, 2018

(3) Investment Securities

(a) Securities available for sale

(dollars in thousands)

The amortized cost and fair value of the securities available for sale are as follows:

			Gross	Gross				
	A	mortized	Unrealized	Unrealized	Fair			
		Cost	Gains	Losses	Value			
U.S. government sponsored enterprises	\$	154,868	-	2,708	152,160			
State and political subdivisions		168	5	-	173			
Mortgage backed securities and collateralized								
mortgage obligations - residential		271,386	53	9,407	262,032			
Corporate bonds		30,048	-	110	29,938			
Small Business Administration - guaranteed								
participation securities		58,376	-	1,901	56,475			
Other		685	-	-	685			
Total securities available for sale	\$	515,531	58	14,126	501,463			
			D 1	21 2017				
(dollars in thousands)		December 31, 2017						
			Gross	Gross				
	A	mortized	Unrealized	Unrealized	Fair			
	A	mortized Cost			Fair Value			
U.S. government sponsored enterprises	A 		Unrealized	Unrealized Losses	Value			
U.S. government sponsored enterprises State and political subdivisions		Cost	Unrealized Gains	Unrealized				
State and political subdivisions		Cost 139,890	Unrealized Gains	Unrealized Losses	Value 137,851			
State and political subdivisions Mortgage backed securities and collateralized		Cost 139,890	Unrealized Gains	Unrealized Losses	Value 137,851			
State and political subdivisions		Cost 139,890 515	Unrealized Gains 27	Unrealized Losses 2,066	Value 137,851 525			
State and political subdivisions Mortgage backed securities and collateralized mortgage obligations - residential Corporate bonds		Cost 139,890 515 320,614	Unrealized Gains 27	Unrealized Losses 2,066 - 4,715	Value 137,851 525 315,983			
State and political subdivisions Mortgage backed securities and collateralized mortgage obligations - residential		Cost 139,890 515 320,614	Unrealized Gains 27	Unrealized Losses 2,066 - 4,715	Value 137,851 525 315,983			
State and political subdivisions Mortgage backed securities and collateralized mortgage obligations - residential Corporate bonds Small Business Administration - guaranteed		Cost 139,890 515 320,614 40,270	Unrealized Gains 27	Unrealized Losses 2,066 - 4,715 108	Value 137,851 525 315,983 40,162			
State and political subdivisions Mortgage backed securities and collateralized mortgage obligations - residential Corporate bonds Small Business Administration - guaranteed participation securities		Cost 139,890 515 320,614 40,270	Unrealized Gains 27	Unrealized Losses 2,066 - 4,715 108	Value 137,851 525 315,983 40,162			
State and political subdivisions Mortgage backed securities and collateralized mortgage obligations - residential Corporate bonds Small Business Administration - guaranteed participation securities Mortgage backed securities and collateralized		Cost 139,890 515 320,614 40,270 68,921	Unrealized Gains 27	Unrealized Losses 2,066 - 4,715 108 1,862	Value 137,851 525 315,983 40,162 67,059			

The following table distributes the amortized cost and fair value of debt securities included in the available for sale portfolio as of December 31, 2018, based on the securities' final maturity. Actual maturities may differ because of securities prepayments and the right of certain issuers to call or prepay their obligations without penalty. Securities not due at a single maturity are shown separately:

(dollars in thousands)	A	mortized	Fair
		Cost	Value
Due in one year or less	\$	10,065	10,053
Due in one year through five years		175,635	172,834
Due after five years through ten years		69	69
Mortgage backed securities and collateralized mortgage obligations - residential		271,386	262,032
Small Business Administration - guaranteed participation securities		58,376	56,475
	\$	515,531	501,463

Gross unrealized losses on securities available for sale and the related fair values aggregated by the length of time that individual securities have been in an unrealized loss position, were as follows:

(dollars in thousands)				December	31, 2018		
	Less than			12 mo	nths		
		12 mo	nths	or me	ore	Total	
			Gross	Gross			Gross
		Fair	Unreal.	Fair	Unreal.	Fair	Unreal.
		Value	Loss	Value	Loss	Value	Loss
U.S. government sponsored enterprises	\$	29,870	106	112,291	2,602	142,161	2,708
Mortgage backed securities and collateralized							
mortgage obligations - residential		1,102	11	259,729	9,396	260,831	9,407
Corporate bonds		14,943	98	9,995	12	24,938	110
Small Business Administration - guaranteed							
participation securities		_	-	56,475	1,901	56,475	1,901
Total	\$	45,915	215	438,490	13,911	484,405	14,126
(dollars in thousands)				December	21 2017		
(donars in thousands)	_	T 4	1				
		Less t 12 mo		12 mo		Tota	-1
	_	12 mo		or me		100	
			Gross		Gross		Gross
		Fair	Unreal.	Fair	Unreal.	Fair	Unreal.
		Value	Loss	Value	Loss	Value	Loss
U.S. government sponsored enterprises	\$	29,734	266	98,090	1,800	127,824	2,066
Mortgage backed securities and collateralized							
mortgage obligations - residential		48,080	371	266,394	4,344	314,474	4,715
Corporate bonds		-	-	40,162	108	40,162	108
Small Business Administration - guaranteed							
participation securities		-	-	67,059	1,862	67,059	1,862
Mortgage backed securities and collateralized							
mortgage obligations - commercial		-	-	9,700	110	9,700	110
Total	\$	77,814	637	481,405	8,224	559,219	8,861

The proceeds from sales and calls/paydowns of securities available for sale, gross realized gains and gross realized losses from sales and calls during 2018, 2017 and 2016 are as follows:

(dollars in thousands)	Years ended December 31,						
	 2018	2017	2016				
Proceeds from sales	\$ -	-	44,829				
Proceeds from calls/paydowns	78,230	124,624	201,100				
Gross realized gains	-	-	668				
Gross realized losses	_	_	_				

There were no sales of securities in 2018 and 2017. Tax expense on gain on sale of securities for the year ended December 31, 2016 totaled \$267 thousand.

The amount of securities that have been pledged to secure short-term borrowings and for other purposes amounted to \$205.5 million and \$326.5 million at December 31, 2018 and 2017, respectively.

(b) Held to maturity securities

The amortized cost and fair value of the held to maturity securities are as follows:

		December	r 31, 2018	
(dollars in thousands)		Gross	Gross	
	Amortized	Unrecognized	Unrecognized	Fair
	 Cost	Gains	Losses	Value
Mortgage backed securities and collateralized mortgage obligations				
- residential	\$ 22,501	577	154	22,924
Total held to maturity	\$ 22,501	577	154	22,924
		December	31, 2017	
(dollars in thousands)		Gross	Gross	
	Amortized	Unrecognized	Unrecognized	Fair
	Cost	Gains	Losses	Value
Mortgage backed securities and collateralized mortgage				
obligations - residential	\$ 27,551	1,150	-	28,701
Total held to maturity	\$ 27,551	1,150	-	28,701

The following table distributes the debt securities included in the held to maturity portfolio as of December 31, 2018, based on the securities' final maturity. Actual maturities may differ because of securities prepayments and the right of certain issuers to call or prepay their obligations without penalty. Securities not due at a single maturity date are shown separately.

(dollars in thousands)	Amortized	Fair
	 Cost	Value
Mortgage backed securities and collateralized mortgage obligations - residential	\$ 22,501	22,924
	\$ 22,501	22,924

Held to maturity securities in unrecognized losses as of December 31, 2018 had a fair value of \$11.0 million and a loss of \$154 thousand, all of which was in a loss position under 12 months as of December 31, 2018. There were no sales or transfers of held to maturity securities during 2018 and 2017.

(c) Concentrations

The Company has the following balances of securities held in the available for sale and held to maturity portfolios as of December 31, 2018 that represent greater than 10% of shareholders' equity:

(dollars in thousands)	Amortized	Fair
	 Cost	Value
Federal Home Loan Mortgage Corporation	\$ 96,320	93,630
Federal National Mortgage Association	200,717	193,767
Federal Home Loan Bank NY	69,976	68,969
Small Business Administration	58,376	56,475
Federal Farm Credit Bureau	49,992	49,066

(d) Other-Than-Temporary-Impairment

Management evaluates securities for other-than-temporary impairment ("OTTI") at least on a quarterly basis, and more frequently when economic or market conditions warrant such an evaluation. The investment securities portfolio is evaluated for OTTI by segregating the portfolio by type and applying the appropriate OTTI model.

In determining OTTI for debt securities, 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 intent to sell the debt security or more likely than not will be required to sell the debt security before its anticipated recovery. The assessment of whether any other-than-temporary decline exists involves a high degree of subjectivity and judgment and is based on the information available to management at a point in time.

When OTTI occurs, the amount of the OTTI recognized in earnings depends on whether management intends to sell the security or it is more likely than not it will be required to sell the security before recovery of its amortized cost basis. If management intends to sell or it is more likely than not it will be required to sell the security before recovery of its amortized cost basis, the OTTI shall be recognized in earnings equal to the entire difference between the investment's amortized cost basis and its fair value at the balance sheet date. If management does not intend to sell the security and it is not more likely than not that the entity will be required to sell the security before recovery of its amortized cost basis, the OTTI on debt securities shall be separated into the amount representing the credit loss and the amount related to all other factors. The amount of the total OTTI related to the credit loss is determined based on the present value of cash flows expected to be collected and is recognized in earnings. The amount of the total OTTI related to other factors is recognized in other comprehensive income, net of applicable taxes. The previous amortized cost basis less the OTTI recognized in earnings becomes the new amortized cost basis of the investment.

As of December 31, 2018, the Company's security portfolio included certain securities which were in an unrealized loss position, and are discussed below.

U.S. government sponsored enterprises

In the case of unrealized losses on U.S. government sponsored enterprises, because the decline in fair value is attributable to changes in interest rates, and not credit quality, and because the Company does not have the intent to sell these securities and it is likely that it will not be required to sell the securities before their anticipated recovery, the Company does not consider these securities to be other-than-temporarily impaired at December 31, 2018.

Mortgage backed securities and collateralized mortgage obligations – residential

At December 31, 2018, all mortgage backed securities and collateralized mortgage obligations held by the Company were issued by U.S. government sponsored entities and agencies, primarily Ginnie Mae, Fannie Mae and Freddie Mac, institutions which the government has affirmed its commitment to support. Because the decline in fair value is attributable to changes in interest rates, and not credit quality, and because the Company does not have the intent to sell these securities and it is likely that it will not be required to sell the securities before their anticipated recovery, the Company does not consider these securities to be other-than-temporarily impaired at December 31, 2018.

Corporate Bonds

At December 31, 2018, corporate bonds held by the Company are investment grade quality. Because the decline in fair value is attributable to changes in interest rates, and not credit quality, and because the Company does not have the intent to sell these securities and it is likely that it will not be required to sell the securities before their anticipated recovery, the Company does not consider these securities to be other-than-temporarily impaired at December 31, 2018.

Small Business Administration (SBA) - guaranteed participation securities

At December 31, 2018, all of the SBA securities held by the Company were issued and guaranteed by U.S. Small Business Administration. Because the decline in fair value is attributable to changes in interest rates, and not credit quality, and because the Company does not have the intent to sell these securities and it is likely that it will not be required to sell the securities before their anticipated recovery, the Company does not consider these securities to be other-than-temporarily impaired at December 31, 2018.

Mortgage backed securities and collateralized mortgage obligations – commercial

As of December 31, 2018, all of the mortgage backed securities and collateralized mortgage obligations held by the Company were issued by U.S. government sponsored entities and agencies, are current as to the payment of interest and principal and the Company expects to collect the full amount of the principal and interest payments. Because the decline in fair value is attributable to changes in interest rates, and not credit quality, and because the Company does not have the intent to sell these securities and it is likely that it will not be required to sell the securities before their anticipated recovery, the Company does not consider these securities to be other-than-temporarily impaired at December 31, 2018.

As a result of the above analysis, for the year ended December 31, 2018, the Company did not recognize any other-than-temporary impairment losses for credit or any other reason.

(4) Loans and Allowance for Loan Losses

The following tables present the recorded investment in loans by loan class:

	December 31, 2018						
(dollars in thousands)	Ne	w York and					
	ot	her states*	Florida	Total			
Commercial:							
Commercial real estate	\$	156,278	15,275	171,553			
Other		24,330	263	24,593			
Real estate mortgage - 1 to 4 family:							
First mortgages		2,442,711	845,166	3,287,877			
Home equity loans		71,523	17,308	88,831			
Home equity lines of credit		243,765	45,775	289,540			
Installment		9,462	2,240	11,702			
Total loans, net	\$	2,948,069	926,027	3,874,096			
Less: Allowance for loan losses				44,766			
Net loans			\$	3,829,330			
	December 31, 2017 New York and						
(dollars in thousands)			•				
		w York and her states*	Florida	Total			
Commercial:	ot	her states*	Florida				
Commercial: Commercial real estate		her states* 149,368	Florida 12,524	161,892			
Commercial: Commercial real estate Other	ot	her states*	Florida				
Commercial: Commercial real estate Other Real estate mortgage - 1 to 4 family:	ot	149,368 23,606	Florida 12,524 709	161,892 24,315			
Commercial: Commercial real estate Other Real estate mortgage - 1 to 4 family: First mortgages	ot	149,368 23,606 2,286,148	Florida 12,524 709 765,929	161,892 24,315 3,052,077			
Commercial: Commercial real estate Other Real estate mortgage - 1 to 4 family: First mortgages Home equity loans	ot	149,368 23,606 2,286,148 66,455	Florida 12,524 709 765,929 13,989	161,892 24,315 3,052,077 80,444			
Commercial: Commercial real estate Other Real estate mortgage - 1 to 4 family: First mortgages Home equity loans Home equity lines of credit	ot	149,368 23,606 2,286,148 66,455 263,275	Florida 12,524 709 765,929 13,989 45,641	161,892 24,315 3,052,077 80,444 308,916			
Commercial: Commercial real estate Other Real estate mortgage - 1 to 4 family: First mortgages Home equity loans	ot	149,368 23,606 2,286,148 66,455	Florida 12,524 709 765,929 13,989	161,892 24,315 3,052,077 80,444			
Commercial: Commercial real estate Other Real estate mortgage - 1 to 4 family: First mortgages Home equity loans Home equity lines of credit	ot	149,368 23,606 2,286,148 66,455 263,275	Florida 12,524 709 765,929 13,989 45,641	161,892 24,315 3,052,077 80,444 308,916			
Commercial: Commercial real estate Other Real estate mortgage - 1 to 4 family: First mortgages Home equity loans Home equity lines of credit Installment		149,368 23,606 2,286,148 66,455 263,275 7,141	Florida 12,524 709 765,929 13,989 45,641 1,622	161,892 24,315 3,052,077 80,444 308,916 8,763			

^{*} Includes New York, New Jersey, Vermont and Massachusetts.

At December 31, 2018 and 2017, the Company had approximately \$26.7 million and \$30.9 million of real estate construction loans, respectively. Of the \$26.7 million in real estate construction loans at December 31, 2018, approximately \$14.2 million were secured by first mortgages to residential borrowers with the remaining \$12.5 million were to commercial borrowers for residential construction projects. Of the \$30.9 million in real estate construction loans at December 31, 2017, approximately \$21.1 million were secured by first mortgages to residential borrowers with the remaining \$9.8 million were to commercial borrowers for residential construction projects. The vast majority of construction loans are in the Company's New York market.

At December 31, 2018 and 2017, loans to executive officers, directors, and to associates of such persons aggregated \$5.5 million and \$6.9 million, respectively. During 2018, approximately \$1.0 million of new loans were made and repayments of loans totaled approximately \$2.4 million. The composition of related parties did not change at December 31, 2018. The composition of related parties did change during the year ended December 31, 2017 resulting in a reduction of approximately \$100 thousand to outstanding loans to related parties. All loans are current according to their terms.

TrustCo lends in the geographic territory of its branch locations in New York, Florida, Massachusetts, New Jersey and Vermont. Although the loan portfolio is diversified, a portion of its debtors' ability to repay depends significantly on the economic conditions prevailing in the respective geographic territory.

The following tables present the recorded investment in non-accrual loans by loan class:

	December 31, 2018						
(dollars in thousands)	New	York and					
	othe	er states*	Florida	Total			
Loans in non-accrual status:							
Commercial:							
Commercial real estate	\$	639	=	639			
Other		6	-	6			
Real estate mortgage - 1 to 4 family:							
First mortgages		18,202	1,812	20,014			
Home equity loans		247	-	247			
Home equity lines of credit		3,924	103	4,027			
Installment		4	15	19			
Total non-accrual loans		23,022	1,930	24,952			
Restructured real estate mortgages - 1 to 4 family		34	=	34			
Total nonperforming loans	\$	23,056	1,930	24,986			
	December 31, 2017						
		De	cember 31, 2017				
(dollars in thousands)	New	De York and	cember 31, 2017				
(dollars in thousands)			cember 31, 2017 Florida	Total			
(dollars in thousands) Loans in non-accrual status:		York and	•	Total			
		York and	•	Total			
Loans in non-accrual status:		York and	•	Total 1,443			
Loans in non-accrual status: Commercial:	othe	York and er states*	•				
Loans in non-accrual status: Commercial: Commercial real estate	othe	York and er states*	•	1,443			
Loans in non-accrual status: Commercial: Commercial real estate Other	othe	York and er states*	•	1,443			
Loans in non-accrual status: Commercial: Commercial real estate Other Real estate mortgage - 1 to 4 family:	othe	York and er states* 1,443 100	Florida - -	1,443 100			
Loans in non-accrual status: Commercial: Commercial real estate Other Real estate mortgage - 1 to 4 family: First mortgages	othe	York and er states* 1,443 100 16,654	Florida - -	1,443 100 18,913			
Loans in non-accrual status: Commercial: Commercial real estate Other Real estate mortgage - 1 to 4 family: First mortgages Home equity loans	othe	York and er states* 1,443 100 16,654 93	Florida	1,443 100 18,913 93			
Loans in non-accrual status: Commercial: Commercial real estate Other Real estate mortgage - 1 to 4 family: First mortgages Home equity loans Home equity lines of credit	othe	York and er states* 1,443 100 16,654 93 3,603	Florida	1,443 100 18,913 93 3,733			
Loans in non-accrual status: Commercial: Commercial real estate Other Real estate mortgage - 1 to 4 family: First mortgages Home equity loans Home equity lines of credit Installment	othe	York and er states* 1,443 100 16,654 93 3,603 57	Florida	1,443 100 18,913 93 3,733 57			

^{*} Includes New York, New Jersey, Vermont and Massachusetts.

The Company transfers loans to other real estate owned, at fair value less cost to sell, in the period the Company obtains physical possession of the property (through legal title or through a deed in lieu). As of December 31, 2018 and December 31, 2017, other real estate owned included \$1.1 million and \$2.7 million, respectively, of residential foreclosed properties. In addition, non-accrual residential mortgage loans that are in the process of foreclosure had a recorded investment of \$12.4 million and \$12.6 million as of December 31, 2018 and December 31, 2017, respectively.

	December 31, 2018									
New York and other states*:		30-59	60-89	90 +	Total					
		Days	Days	Days	30+ days		Total			
(dollars in thousands)		Past Due	Past Due	Past Due	Past Due	Current	Loans			
Commercial:										
Commercial real estate	\$	198	-	370	568	155,710	156,278			
Other		-	-	-	-	24,330	24,330			
Real estate mortgage - 1 to 4 family:										
First mortgages		3,276	898	13,267	17,441	2,425,270	2,442,711			
Home equity loans		158	94	212	464	71,059	71,523			
Home equity lines of credit		963	348	1,691	3,002	240,763	243,765			
Installment	_	44	29	2	75	9,387	9,462			
Total	\$	4,639	1,369	15,542	21,550	2,926,519	2,948,069			
Florida:		30-59	60-89	90 +	Total					
		Days	Days	Days	30+ days		Total			
(dollars in thousands)	_	Past Due	Past Due	Past Due	Past Due	Current	Loans			
Commercial:										
Commercial real estate	\$	-	-	-	-	15,275	15,275			
Other Real estate mortgage - 1 to 4 family:		-	-	-	-	263	263			
First mortgages		417	407	721	1,545	843,621	845,166			
Home equity loans		50	-	721	50	17,258	17,308			
Home equity lines of						17,200	1.,000			
credit		40	_	50	90	45,685	45,775			
Installment		12	7	15	34	2,206	2,240			
Total	\$	519	414	786	1,719	924,308	926,027			
Total:		30-59	60-89	90 +	Total					
		Days	Days	Days	30+ days		Total			
(dollars in thousands)		Past Due	Past Due	Past Due	Past Due	Current	Loans			
Commercial:										
Commercial real estate	\$	198	-	370	568	170,985	171,553			
Other		-	-	-	-	24,593	24,593			
Real estate mortgage - 1 to 4 family:										
First mortgages		3,693	1,305	13,988	18,986	3,268,891	3,287,877			
Home equity loans		208	94	212	514	88,317	88,831			
Home equity lines of credit		1,003	348	1,741	3,092	286,448	289,540			
Installment		56	36	17	109	11,593	11,702			
Total	\$	5,158	1,783	16,328	23,269	3,850,827	3,874,096			

^{*} Includes New York, New Jersey, Vermont and Massachusetts.

							_
New York and other states*:		30-59	60-89	90 +	Total		
TVCW TOTA and other states .		Days	Days	Days	30+ days		Total
(dollars in thousands)		Past Due	Past Due	Past Due	Past Due	Current	Loans
(donars in thousands)		T ust B uc	Tust Duc	T dot D de	Tust Buc	Carront	Louis
Commercial:							
Commercial real estate	\$	183	174	1,332	1,689	147,679	149,368
Other		-	-	100	100	23,506	23,606
Real estate mortgage - 1 to 4 family:							
First mortgages		5,669	1,300	9,014	15,983	2,270,165	2,286,148
Home equity loans		6	-	45	51	66,404	66,455
Home equity lines of credit		489	18	2,139	2,646	260,629	263,275
Installment		46	17	25	88	7,053	7,141
						•	
Total	\$	6,393	1,509	12,655	20,557	2,775,436	2,795,993
		20.50					
Florida:		30-59	60-89	90 +	Total		
(1.11 · · · · · · · · · · · · · · · · · ·		Days	Days	Days	30+ days	G	Total
(dollars in thousands)		Past Due	Past Due	Past Due	Past Due	Current	Loans
Commercial:							
Commercial real estate	\$	-	-	-	-	12,524	12,524
Other		_	-	-	-	709	709
Real estate mortgage - 1 to 4							
family:							
First mortgages		277	-	1,404	1,681	764,248	765,929
Home equity loans		-	-	-	-	13,989	13,989
Home equity lines of credit						45 641	45 641
Installment		3	5	26	34	45,641	45,641
Instanment		3	3	20	34	1,588	1,622
Total	\$	280	5	1,430	1,715	838,699	840,414
					•	•	
Total:		30-59	60-89	90 +	Total		
		Days	Days	Days	30+ days		Total
(dollars in thousands)		Past Due	Past Due	Past Due	Past Due	Current	Loans
Commercial:							
Commercial real estate	\$	183	174	1,332	1,689	160,203	161,892
Other	Ψ	-	-	100	100	24,215	24,315
Real estate mortgage - 1 to 4 family:				100	100	= ,= 10	2 1,5 10
First mortgages		5,946	1,300	10,418	17,664	3,034,413	3,052,077
Home equity loans		6	-	45	51	80,393	80,444
Home equity lines of credit		489	18	2,139	2,646	306,270	308,916
Installment		49	22	51	122	8,641	8,763
		.,,				0,011	3,733
Total	\$	6,673	1,514	14,085	22,272	3,614,135	3,636,407

^{*} Includes New York, New Jersey, Vermont and Massachusetts.

At December 31, 2018 and 2017, there were no loans that are 90 days past due and still accruing interest. As a result, non-accrual loans includes all loans 90 days past due and greater as well as certain loans less than 90 days past due that were placed in non-accruing status for reasons other than delinquent status. There are no commitments to extend further credit on nonaccrual or restructured loans.

	For the year ended December 31, 2018								
			Real Estate Mortgage-						
(dollars in thousands)	Comr	nercial	1 to 4 Family	Installment	Total				
		4 22 4	20.055	7 (0)	44.150				
Balance at beginning of period Loans charged off:	\$	4,324	39,077	769	44,170				
New York and other states*		100	846	224	1,170				
Florida		100	040	33	33				
Total loan chargeoffs		100	846	257	1,203				
Total loan chargeons		100	040	231	1,203				
Recoveries of loans previously charged off:									
New York and other states*		10	348	32	390				
Florida		-	3	6	9				
Total recoveries		10	351	38	399				
Net loans charged off (recoveries)		90	495	219	804				
Provision (recoveries) for loan losses		(186)	1,190	396	1,400				
Balance at end of period	\$	4,048	39,772	946	44,766				
		For the year ended December 31, 2017							
			Real Estate						
/1.11 · · · · · · · · · · · · · · · · · ·	G.		Mortgage-	T . 11	m . 1				
(dollars in thousands)	Comr	nercial	1 to 4 Family	Installment	Total				
Balance at beginning of period	\$	4,929	38,231	730	43,890				
Loans charged off:	Ψ	1,727	30,231	730	15,070				
New York and other states*		72	2,053	200	2,325				
Florida		-	167	19	186				
Total loan chargeoffs		72	2,220	219	2,511				
			•						
Recoveries of loans previously charged off:									
New York and other states*		96	596	26	718				
Florida		-	73	-	73				
Total recoveries		96	669	26	791				
Net loans charged off (recoveries)		(24)	1,551	193	1,720				
Provision (recoveries) for loan losses		(629)	2,397	232	2,000				
Balance at end of period	\$	4,324	39,077	769	44,170				
		_							
		ŀ	or the year ended I	December 31, 2016					
			Real Estate						
(dollars in thousands)	Cor	mmercial	Mortgage- 1 to 4 Family	Installment	Total				
(donars in thousands)		illillercial	1 to 4 Family	mstamment	Total				
Balance at beginning of period	\$	4,491	39,753	518	44,762				
Loans charged off:	•	, .	,		,,,,				
New York and other states*		795	3,447	303	4,545				
Florida		-	126	39	165				
Total loan chargeoffs		795	3,573	342	4,710				
Recoveries of loans previously charged off:		207	(12	C 4	004				
New York and other states* Florida		207	613 4	64	884 4				
Total recoveries		207		-					
		207	617	64	888				
Net loans charged off (recoveries)		588	2,956	278	3,822				
Provision (recoveries) for loan losses	Ф	1,026	1,434	490	2,950				
Balance at end of period	\$	4,929	38,231	730	43,890				

^{*} Includes New York, New Jersey, Vermont and Massachusetts.

The following tables present the balance in the allowance for loan losses and the recorded investment in loans by portfolio segment and based on impairment method as of December 31, 2018 and 2017:

	December 31, 2018								
	_		1-to-4 Family						
		Commercial	Residential	Installment					
(dollars in thousands)	_	Loans	Real Estate	Loans	Total				
Allowance for loan losses:									
Ending allowance balance attributable to loans:									
Individually evaluated for impairment	\$	_	_	_	_				
Collectively evaluated for impairment	-	4,048	39,772	946	44,766				
,	_	<u> </u>							
Total ending allowance balance	\$	4,048	39,772	946	44,766				
					_				
Loans:									
Individually evaluated for impairment	\$	1,424	20,864	-	22,288				
Collectively evaluated for impairment		194,722	3,645,384	11,702	3,851,808				
Total ending loans balance	\$	196,146	3,666,248	11,702	3,874,096				
			December 3	1, 2017					
			1-to-4 Family						
		Commercial	Residential	Installment					
(dollars in thousands)	_	Loans	Real Estate	Loans	Total				
Allowance for loan losses:									
Ending allowance balance attributable to loans:									
Individually evaluated for impairment	\$								
Collectively evaluated for impairment	Ψ	4,324	39,077	769	44,170				
Concentrary evaluated for impairment	_	7,327	37,011	707	77,170				
Total ending allowance balance	\$	4,324	39,077	769	44,170				
Loans:									
Individually evaluated for impairment	\$	2,248	22,032	-	24,280				
Collectively evaluated for impairment	_	183,959	3,419,405	8,763	3,612,127				
Total ending loans balance	\$	186,207	3,441,437	8,763	3,636,407				
Total Shalls balance	φ	100,207	/ עד, ודד, ע	0,703	3,030,707				

The Company has identified nonaccrual commercial and commercial real estate loans, as well as all loans restructured under a troubled debt restructuring (TDR), as impaired loans. A loan is considered impaired when it is probable that the borrower will be unable to repay the loan according to the original contractual terms of the loan agreement or the loan is restructured in a TDR.

A loan for which the terms have been modified, and for which the borrower is experiencing financial difficulties, is considered a TDR and is classified as impaired. TDR's at December 31, 2018 and 2017 are measured at the present value of estimated future cash flows using the loan's effective rate at inception or the fair value of the underlying collateral if the loan is considered collateral dependent.

	December 31, 2018								
New York and other states*:		Recorded	Unpaid Principal	Related	YTD Avg Recorded				
(dollars in thousands)	_	Investment	Balance	Allowance	Investment				
Commercial:									
Commercial real estate	\$	1,274	1,444	-	1,503				
Other		38	88	-	123				
Real estate mortgage - 1 to 4 family:									
First mortgages		15,210	15,661	-	15,577				
Home equity loans		252	272	-	262				
Home equity lines of credit		2,772	2,996	-	2,772				
Total	<u>\$</u>	19,546	20,461	-	20,237				
Florida:									
i iorida.			Unpaid		YTD Avg				
		Recorded	Principal	Related	Recorded				
(dollars in thousands)		Investment	Balance	Allowance	Investment				
(donars in thousands)	_	mvestment	Bulance	7 tho wance	mvestment				
Commercial:									
Commercial real estate	\$	112	112	-	57				
Real estate mortgage - 1 to 4 family:									
First mortgages		2,293	2,399	-	2,455				
Home equity loans		84	84	-	86				
Home equity lines of credit		253	253	-	326				
Total	\$	2,742	2,848	-	2,924				
Total:	_								
10141.			Unpaid		YTD Avg				
		Recorded	Principal	Related	Recorded				
(dollars in thousands)		Investment	Balance	Allowance	Investment				
Commercial: Commercial real estate	s	1,386	1 55(1.5(0				
Other	ð	38	1,556 88	-	1,560 123				
Real estate mortgage - 1 to 4 family:		38	00	<u>-</u>	123				
First mortgages		17,503	18,060	_	18,032				
Home equity loans		336	356	<u>-</u>	348				
Home equity lines of credit		3,025	3,249	-	3,098				
frome equity fines of eledit		3,023	3,243	-	3,076				
Total	\$	22,288	23,309	-	23,161				
	_								

 $[\]boldsymbol{*}$ Includes New York, New Jersey, Vermont and Massachusetts.

	_		December 3	31, 2017	
New York and other states*: (dollars in thousands)	_	Recorded Investment	Unpaid Principal Balance	Related Allowance	YTD Avg Recorded Investment
Commercial:					
Commercial real estate	\$	2,148	3,120	-	2,711
Other		100	100	-	87
Real estate mortgage - 1 to 4 family:					
First mortgages		15,850	16,540	-	16,508
Home equity loans		270	291	-	263
Home equity lines of credit	<u> </u>	2,606	2,847	-	2,193
Total	\$	20,974	22,898	-	21,762
Florida: (dollars in thousands)		Recorded Investment	Unpaid Principal Balance	Related Allowance	YTD Avg Recorded Investment
(10-1111)	_				
Commercial:					
Commercial real estate	\$	-	-	-	-
Other		-	-	-	-
Real estate mortgage - 1 to 4 family:			• 04.0		
First mortgages		2,707	2,813	-	2,335
Home equity loans		89	89	-	92
Home equity lines of credit	_	510	510	<u> </u>	561
Total	\$	3,306	3,412	-	2,988
Total:					
			Unpaid		YTD Avg
		Recorded	Principal	Related	Recorded
(dollars in thousands)	_	Investment	Balance	Allowance	Investment
Commercial:					
Commercial real estate	\$	2,148	3,120	-	2,711
Other	Ψ	100	100	-	87
Real estate mortgage - 1 to 4 family:					3,
First mortgages		18,557	19,353	-	18,843
Home equity loans		359	380	-	355
Home equity lines of credit	_	3,116	3,357	-	2,754
Total	ď.	24 200	26.210		24.750
Total	\$	24,280	26,310	-	24,750

^{*} Includes New York, New Jersey, Vermont and Massachusetts.

The Company has not committed to lend additional amounts to customers with outstanding loans that are classified as impaired. Interest income recognized on impaired loans was not material in 2018, 2017, and 2016.

Included in impaired loans as of December 31, 2018 and 2017 are approximately \$11.1 million and \$11.8 million, respectively, of loans in accruing status that were identified as TDR's.

Management evaluates impairment on impaired loans on a quarterly basis. If, during this evaluation, impairment of the loan is identified, a charge-off is taken at that time if necessary. As a result, as of December 31, 2018 and 2017, based upon management's evaluation and due to the sufficiency of charge-offs taken, none of the allowance for loan losses has been allocated to a specific impaired loan(s).

The following table presents modified loans by class that were determined to be TDR's that occurred during the years ended December 31, 2018, 2017 and 2016:

	Ye	ar en	ded 12/31	/2018	Ye	ear	ended 12/31	/2017	Year ended 12/31/2			
New York and other states*: (dollars in thousands)	Number of Contracts	Out Re	Pre- dification estanding ecorded restment	Post- Modification Outstanding Recorded Investment	Number of Contracts	(Pre- Modification Outstanding Recorded Investment	Post- Modification Outstanding Recorded Investment	Number of Contracts	Pre- Modification Outstanding Recorded Investment	Post- Modification Outstanding Recorded Investment	
Commercial:												
Commercial real estate	6	\$	747	747	4	\$	426	426	2	\$ 401	401	
Real estate mortgage - 1 to 4 family:												
First mortgages	18		2,349	2,349	44		5,653	5,653	30	2,871	2,871	
Home equity loans	1		6	6	3		56	56	1	44	44	
Home equity lines of credit	5		325	325	18		868	868	10	402	402	
Total	30	\$	3,427	3,427	69	\$	7,003	7,003	43	\$ 3,718	3,718	
Florida:												
(dollars in thousands)	Number of Contracts	Mod Out Re	Pre- lification standing corded estment	Post- Modification Outstanding Recorded Investment	Number of Contracts	C	Pre- Modification Outstanding Recorded Investment	Post- Modification Outstanding Recorded Investment	Number of Contracts	Pre- Modification Outstanding Recorded Investment	Post- Modification Outstanding Recorded Investment	
(donars in thousands)	Contracts	1111	Cottificate	mvestment	Contracts		in vestinent	m v estiment	Contracts	mvestment	THY COMMON	
Real estate mortgage - 1 to 4 family:												
First mortgages	1	\$	35	35	10	\$	1,076	1,076	4	\$ 504	504	
Home equity loans	-		-	-	-		-	-	1	45	45	
Home equity lines of credit	_		-		2		95	95	1	6	6	
Total	1	\$	35	35	12	\$	1,171	1,171	6	\$ 555	555	

^{*} Includes New York, New Jersey, Vermont and Massachusetts.

The addition of these TDR's did not have a significant impact on the allowance for loan losses.

The following table presents loans by class modified as TDR's that occurred during the years ended December 31, 2018, 2017 and 2016 for which there was a payment default within 12 months of modification:

	Year ended 12/31/2018				Year e	12/31/201	7	Year ended 12/31/2016				
New York and other states*: (dollars in thousands)	Number of Recorded Contracts Investment		Number of Recorded Contracts Investment				Number of Contracts		Recorded Investment			
Real estate mortgage - 1 to 4 family:												
First mortgages		1	\$	101		1	\$	72		3	\$	291
Home equity lines of credit		-		-		1		3		1		141
Total		1	\$	101		2	\$	75		4	\$	432
Florida: (dollars in thousands)	Number of Contracts	Recorded Investment		Number of Contracts	Recorded Investment			Number of Contracts		Recorded Investment		
Real estate mortgage - 1 to 4 family:												
First mortgages	-	\$		-		- \$		-		-	\$	-
Home equity lines of credit	-			-		-		-		-		-
Total	-	\$				- \$				-	\$	

^{*} Includes New York, New Jersey, Vermont and Massachusetts.

In situations where the Bank considers a loan modification, management determines whether the borrower is experiencing financial difficulty by performing an evaluation of the probability that the borrower will be in payment default on any of its debt in the foreseeable future without the modification. This evaluation is performed under the Company's underwriting policy. Generally, the modification of the terms of loans was the result of the borrower filing for bankruptcy

protection. Chapter 13 bankruptcies generally include the deferral of all past due amounts for a period of generally 60 months in accordance with the bankruptcy court order. In the case of Chapter 7 bankruptcies, even though there is no modification of terms, the borrowers' debt to the Company was discharged and they may not reaffirm the debt.

A loan is considered to be in payment default once it is 90 days contractually past due under the modified terms. In situations involving a borrower filing for Chapter 13 bankruptcy protection, however, a loan is considered to be in payment default once it is 30 days contractually past due, consistent with the treatment by the bankruptcy court.

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The TDR's that subsequently defaulted described above did not have a material impact on the allowance for loan losses as the underlying collateral was evaluated at the time these loans were identified as TDR's, and a charge-off was taken at that time, if necessary. Collateral values on these loans are reviewed for collateral sufficiency on a quarterly basis.

The Company categorizes non-homogenous loans such as commercial and commercial real estate 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. On at least an annual basis, in accordance with the Company's Loan Policy, the Company analyzes non-homogeneous loans, individually by grading the loans based on credit risk. The loan grades assigned to all loan types are also tested by the Company's external loan review firm in accordance with the Company's loan review policy.

The Company uses the following definitions for classified loans:

<u>Special Mention</u>: 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.

<u>Substandard</u>: 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.

<u>Doubtful:</u> Loans classified as doubtful have all the weaknesses inherent in those loans 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. All doubtful loans are considered impaired.

Loans not meeting the criteria above that are analyzed individually as part of the above-described process are considered to be pass rated loans.

As of December 31, 2018 and 2017, and based on the most recent analysis performed, the risk category of loans by class of loans is as follows:

		D	ecember 31, 2018	
New York and other states*: (dollars in thousands)		Pass	Classified	Total
(donars in thousands)		1 ass	Classified	Total
Commercial:				
Commercial real estate	\$	152,045	4,233	156,278
Other		23,331	999	24,330
	\$	175,376	5,232	180,608
Florida:				
(dollars in thousands)	<u> </u>	Pass	Classified	Total
Commercial:				
Commercial real estate	\$	15,163	112	15,275
Other		263	-	263
	\$	15,426	112	15,538
Total:				
(dollars in thousands)	<u> </u>	Pass	Classified	Total
Commercial:				
Commercial real estate	\$	167,208	4,345	171,553
Other		23,594	999	24,593
	\$	190,802	5,344	196,146

^{*} Includes New York, New Jersey and Massachusetts.

	 Ι	December 31, 2017	
New York and other states*: (dollars in thousands)	 Pass	Classified	Total
Commercial:			
Commercial real estate	\$ 140,806	8,562	149,368
Other	 21,936	1,670	23,606
	\$ 162,742	10,232	172,974
Florida: (dollars in thousands)	 Pass	Classified	Total
Commercial:			
Commercial real estate	\$ 12,406	118	12,524
Other	 709	-	709
	\$ 13,115	118	13,233
Total:			
(dollars in thousands)	 Pass	Classified	Total
Commercial:			
Commercial real estate	\$ 153,212	8,680	161,892
Other	22,645	1,670	24,315
	\$ 175,857	10,350	186,207

^{*} Includes New York, New Jersey and Massachusetts.

Included in classified loans in the above tables are impaired loans of \$1.4 million and \$1.5 million at December 31, 2018 and 2017, respectively.

For homogeneous loan pools, such as residential mortgages, home equity lines of credit, and installment loans, the Company uses payment status to identify the credit risk in these loan portfolios. Payment status is reviewed on a daily basis by the Bank's collection area and on a monthly basis with respect to determining the adequacy of the allowance for loan losses. The payment status of these homogeneous pools at December 31, 2018 and 2017 is included in the aging of the recorded investment of past due loans table. In addition, the total nonperforming portion of these homogeneous loan pools at December 31, 2018 and 2017 is presented in the recorded investment in non-accrual loans table.

(5) Bank Premises and Equipment

A summary of premises and equipment at December 31, 2018 and 2017 follows:

(dollars in thousands)	2018	2017
Land	\$ 2,308	\$ 2,308
Buildings	34,969	34,599
Furniture, fixtures and equipment	52,153	50,832
Leasehold improvements	31,906	30,275
Total bank premises and equipment	 121,336	118,014
Accumulated depreciation and amortization	 (86,642)	(82,857)
Total	\$ 34,694	\$ 35,157

Depreciation and amortization expense was approximately \$4.1 million, \$3.8 million, and \$4.0 million for the years 2018, 2017, and 2016, respectively. Occupancy expense of the Bank's premises included rental expense of \$8.0 million in 2018, \$7.8 million in 2017, and \$7.6 million in 2016.

(6) Deposits

Interest expense on deposits was as follows:

(dollars in thousands)	For the yea	r ended December 3	31,
	 2018	2017	2016
		450	453
Interest bearing checking accounts	\$ 442	478	473
Savings accounts	1,657	1,729	2,148
Time deposits and money market accounts	 16,859	10,983	11,592
Total	\$ 18,958	13,190	14,213

At December 31, 2018, the maturity of total time deposits is as follows:

(dollars in thousands)

Under 1 year	\$ 941,376
1 to 2 years	276,224
2 to 3 years	48,048
3 to 4 years	4,815
4 to 5 years	3,747
Over 5 years	296
	\$ 1,274,506

Included in total time deposits as of December 31, 2018 and 2017 is \$ 182.2 million and \$136.8 million in time deposits with balances in excess of \$250,000.

(7) Short-Term Borrowings

Short-term borrowings of the Company were cash management accounts as follows:

(dollars in thousands)	 2018	2017	2016
Amount outstanding at December 31,	\$ 161,893	242,991	209,406
Maximum amount outstanding at any month end	233,522	252,996	209,406
Average amount outstanding	194,810	228,086	185,672
Weighted average interest rate:			
For the year	0.65%	0.61	0.59
As of year end	0.95	0.62	0.59

Cash management accounts represent retail accounts with customers for which the Bank has pledged certain assets as collateral.

Trustco Bank also has an available line of credit with the Federal Home Loan Bank of New York which approximates the balance of securities and/or loans pledged against such borrowings. The line of credit requires securities and/or loans to be pledged as collateral for the amount borrowed. As of December 31, 2018 and 2017, the Company had no outstanding borrowings with the Federal Home Loan Bank of New York.

Trustco Bank is approved to borrow on a short-term basis from the Federal Reserve Bank of New York. The Bank can pledge certain securities to the Federal Reserve Bank to support this arrangement. As of December 31, 2018 and 2017, the Bank had no outstanding borrowings and loans with the Federal Reserve Bank of New York.

(8) Income Taxes

A summary of income tax expense included in the Consolidated Statements of Income follows:

(dollars in thousands)	For the year ended December 31,			
	 2018		2017	2016
Current tax expense:				
Federal	\$ 13,897	\$	26,510	20,904
State	1,756		2,221	1,524
Total current tax expense	15,653		28,731	22,428
Enactment of Federal Tax Reform	-		5,054	-
Deferred tax (benefit) expense	2,556		(183)	3,261
Total income tax expense	\$ 18,209	\$	33,602	25,689

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at December 31, 2018 and 2017, are as follows:

		Decem	ber	31,	
(dollars in thousands)	2018			2017	
		Deductible		Deductible	
		temporary		temporary	
	_	differences		differences	
Benefits and deferred remuneration	\$	(5,204)	\$	(4,087)	
Difference in reporting the allowance for loan losses, net	Ψ	12,082	Ψ	12,002	
Other income or expense not yet reported for tax purposes		(210)		(327)	
Depreciable assets		(1,961)		(325)	
Net deferred tax asset at end of year		4,707		7,263	
Net deferred tax asset at beginning of year		7,263		12,134	
Enactment of Federal Tax Reform		-		5,054	
Deferred tax expense	\$	2,556	\$	(183)	

Deferred tax assets are recognized subject to management's judgment that realization is more likely than not. Based primarily on the sufficiency of expected future taxable income, management believes it is more likely than not that the remaining deferred tax asset of \$4.7 million and \$7.3 million at December 31, 2018 and 2017, respectively, will be realized.

In addition to the deferred tax items described in the preceding table, the Company has deferred tax assets of \$3.7 million and \$2.3 million at December 31, 2018 and 2017, respectively, relating to the net unrealized losses on securities available for sale and deferred tax (liabilities) assets of approximately (\$200) thousand and (\$1.2) million at December 31, 2018 and 2017, respectively, as a result of changes in the unrecognized overfunded position in the Company's pension and postretirement benefit plans recorded, net of tax, as an adjustment to accumulated other comprehensive loss.

The effective tax rates differ from the statutory federal income tax rate. The reasons for these differences are as follows:

	For the years ended December 31,				
•	2018	2017	2016		
Statutory federal income tax rate	21.0%	35.0	35.0		
Increase/(decrease) in taxes resulting from:					
Tax exempt income	(0.1)	(0.1)	(0.1)		
State income tax, net of federal tax benefit	2.4	1.6	1.8		
Enactment of Federal Tax Reform	-	6.6	-		
Other items	(0.4)	0.7	0.9		
Effective income tax rate	22.9%	43.8	37.6		

On a periodic basis, the Company evaluates its income tax positions based on tax laws and regulations and financial reporting considerations, and records adjustments as appropriate. This evaluation takes into consideration the status of taxing authorities' current examinations of the Company's tax returns, recent positions taken by the taxing authorities on similar transactions, if any, and the overall tax environment in relation to uncertain tax positions.

The Company does not anticipate a material charge to the amount of unrecognized tax benefits in the next twelve months.

The Company recognizes interest and/or penalties related to income tax matters in noninterest expense. For the years 2018, 2017, and 2016, these amounts were not material. The Company and its subsidiaries file income tax returns in the U.S. federal jurisdiction as well as in various states. In the normal course of business, the Company is subject to U.S. federal, state, and local income tax examinations by tax authorities. The Company's federal and state income tax returns for the years 2015 through 2018 remain open to examination. The Company's 2014, 2015 and 2016 New York State income tax returns are currently under examination.

On December 22, 2017 H.R.1, commonly known as the Tax Cuts and Jobs Act (the "Act"), was signed into law. The Act included many provisions that affect our income tax expense, including reducing our federal tax rate from 35% to 21%, effective January 1, 2018. As a result of this rate reduction, we were required to re-measure, through income tax expense in the period of enactment, our deferred tax assets and liabilities using the enacted rate at which we expect them to be recovered or settled. The re-measurement of our net deferred tax asset resulted in additional 2017 income tax expense of \$5.1 million.

Also on December 22, 2017, the U.S. Securities and Exchange Commission ("SEC") released Staff Accounting Bulletin No. 118 ("SAB 118") to address any uncertainty or diversity of views in practice in accounting for the income tax effect of the Act in situations where a registrant did not have the necessary information available, prepared, or analyzed in reasonable detail to complete this accounting in the reporting period that included the enactment date. SAB 118 allowed for a measurement period, not to extend beyond one year of the Act's enactment date, to complete the necessary accounting.

As of December 31, 2018, the Company's deferred tax liability for temporary differences between the tax and financial reporting bases of fixed assets and the implementation of software updates to process the calculations associated with the Act's provisions has been completed. This Act's provision allows for 100% bonus depreciation on fixed assets placed in service after September 27, 2017. The adjustment to the temporary difference between the tax and financial reporting bases of fixed assets resulted in a one-time benefit of \$880 thousand.

The Company made no adjustments to deferred tax assets representing future deductions for accrued compensation that may be subject to new limitations under Internal Revenue Code Section 162(m) which, generally, limits, the annual deduction for certain compensation paid to certain employees to \$1 million. As of December 31, 2017, there was uncertainty regarding how the newly-enacted rules in this area apply to existing contracts. These matters were finalized in 2018 with no material impact to Income tax expense.

(9) Benefit Plans

(a) Retirement Plan

The Company maintains a trusteed non-contributory pension plan covering employees that have completed one year of employment and 1,000 hours of service. The benefits are based on the sum of (a) a benefit equal to a prior service benefit plus the average of the employees' highest five consecutive years' compensation in the ten years preceding retirement multiplied by a percentage of service after a specified date plus (b) a benefit based upon career average compensation. The amounts contributed to the plan are determined annually on the basis of (a) the maximum amount that can be deducted for federal income tax purposes or (b) the amount certified by a consulting actuary as necessary to avoid an accumulated funding deficiency as defined by the Employee Retirement Income Security Act of 1974. Contributions are intended to provide for benefits attributed to service to date. Assets of the plan are administered by Trustco Bank's Financial Services Department. This plan was frozen as of December 31, 2006.

The following tables set forth the plan's funded status and amounts recognized in the Company's consolidated statements of condition at December 31, 2018 and 2017:

Change in Projected Benefit Obligation:

	December 3	1,
(dollars in thousands)	2018	2017
Projected benefit obligation at beginning of year	\$ 31,219	30,730
Service cost	34	42
Interest cost	1,197	1,303
Benefit payments and expected expenses	(1,937)	(2,050)
Net actuarial (gain) loss	 (1,995)	1,194
Projected benefit obligation at end of year	\$ 28,518	31,219

Change in Plan Assets and Reconciliation of Funded Status:

	 December 3	1,
(dollars in thousands)	 2018	2017
Fair Value of plan assets at beginning of year	\$ 47,227	43,100
Actual (loss) gain on plan assets	(1,126)	6,169
Benefit payments and actual expenses	 (1,944)	(2,042)
Fair value of plan assets at end of year	44,157	47,227
Funded status at end of year	\$ 15,639	16,008

Amounts recognized in accumulated other comprehensive loss consist of the following as of:

	 December 31,		
	2018		
Net actuarial loss	\$ 5,122	2,972	

The accumulated benefit obligation was \$28.5 million and \$31.2 million at December 31, 2018 and 2017, respectively.

Components of Net Periodic Pension Income and Other Amounts Recognized in Other Comprehensive (Loss) Income:

		For the years ended December 31,			
(dollars in thousands)		2018	2017	2016	
Service cost	\$	34	42	61	
Interest cost	Ψ	1,197	1,303	1,371	
Expected return on plan assets		(3,012)	(2,742)	(2,648)	
Amortization of net loss		<u>-</u>	67	184	
Net periodic pension credit		(1,781)	(1,330)	(1,032)	
Amortization of net loss		-	(67)	(184)	
Net actuarial loss (gain) included in other comprehensive income (loss)		2,149	(2,240)	(367)	
Total recognized in other comprehensive income (loss)		2,149	(2,307)	(551)	
Total recognized in net periodic benefit cost (credit) and other comprehensive income		260	(2, (2.7)	(1.502)	
(loss)	\$	368	(3,637)	(1,583)	

The estimated net loss for the plan that will be amortized from accumulated other comprehensive loss into net periodic benefit income over the next fiscal year is \$74 thousand.

Estimated Future Benefit Payments

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

(dollars in thousands)

Year	Pension Benefits
2019	\$ 1,743
2020	1,782
2021	1,857
2022	1,842
2023	1,832
2024 - 2028	9,255

The assumptions used to determine benefit obligations at December 31 are as follows:

2018	2017	2016
4.53%	3.93	4.41

The assumptions used to determine net periodic pension expense (benefit) for the years ended December 31 are as follows:

	2018	2017	2016
Discount rate	3.93%	4.41	4.55
Expected long-term rate of return on assets	6.50	6.50	6.50

The annual rate assumption used for purposes of computing the service and interest costs components is determined based upon factors including the yields on high quality corporate bonds and other appropriate yield curves along with analysis prepared by the Company's actuaries.

(b) Supplemental Retirement Plan

The Company also has a supplementary pension plan under which additional retirement benefits are accrued for eligible executive officers. This plan supplements the defined benefit retirement plan for eligible employees that exceed the Internal Revenue Service limit on the amount of pension payments that are allowed from a retirement plan. The supplemental plan provides eligible employees with total benefit payments as calculated by the retirement plan without regard to this limitation. Benefits under this plan are calculated using the same actuarial assumptions and interest rates as used for the retirement plan calculations. The accumulated benefits under this supplementary pension plan was approximately \$2.3 million and \$5.6 million as of December 31, 2018 and 2017, respectively. In 2018 retirement benefits of \$3.2 million was paid out to a former executive officer. Effective as of December 31, 2008, this plan has been frozen and no additional benefits will accrue. Instead, the amount of the Company's annual contribution to the plan plus interest is paid directly to each eligible employee. The expense recorded for this plan was \$1.4 million, \$1.1 million, and \$1.0 million, in 2018, 2017, and 2016, respectively.

Rabbi trusts have been established for this plan. These trust accounts are administered by the Trustco Financial Services Department and invest primarily in bonds issued by government-sponsored enterprises and money market instruments. These assets are recorded at their fair value and are included in short-term investments in the Consolidated Statements of Condition. As of December 31, 2018 and 2017, the trusts had assets totaling \$2.5 million and \$5.6 million, respectively.

(c) Postretirement Benefits

The Company permits retirees under age 65 to participate in the Company's medical plan by making certain payments. In addition, the plan provides a death benefit to certain eligible employees and retirees.

In 2003, the Company amended the medical plan to reflect changes to the retiree medical insurance coverage portion. The Company's subsidy of the retiree medical insurance premiums was eliminated at that time. The Company continues to provide postretirement medical benefits for a limited number of executives in accordance with their employment contracts.

The following tables show the plan's funded status and amounts recognized in the Company's Consolidated Statements of Condition at December 31, 2018 and 2017:

Change in Accumulated Benefit Obligation:

(dollars in thousands)

	December 31,		
		2018	2017
Accumulated benefit obligation at beginning of year	\$	5,613	5,120
Service cost		53	103
Interest cost		202	218
Benefits paid		(178)	(93)
Net actuarial (gain) loss		(290)	265
Accumulated benefit obligation at end of year	\$	5,400	5,613

Change in Plan Assets and Reconciliation of Funded Status:

(dollars in thousands)

	 December 31,		
	 2018	2017	
Fair value of plan assets at beginning of year	\$ 22,922	20,338	
Actual (loss) gain on plan assets	(798)	2,611	
Company contributions	145	66	
Benefits paid	(178)	(93)	
Fair value of plan assets at end of year	 22,091	22,922	
Funded status at end of year	\$ 16,691	17,309	

The accumulated benefit obligation was \$5.4 million and \$5.6 million at December 31, 2018 and 2017, respectively.

Components of Net Periodic Benefit Income and Other Amounts Recognized in Other Comprehensive Income (Loss):

(dollars in thousands)		For the years ended December 31,			
		2018	2017	2016	
Service cost	\$	53	103	116	
Interest cost		202	218	221	
Expected return on plan assets		(1,028)	(761)	(720)	
Amortization of net actuarial gain		(556)	(356)	(274)	
Amortization of prior service (credit) cost		(100)	90	90	
Net periodic benefit credit		(1,429)	(706)	(567)	
Net loss (gain)		830	(1,584)	(966)	
Amortization of prior service credit (cost)		100	(90)	(90)	
Prior service cost		705	-	-	
Amortization of net gain		556	356	274	
Total amount recognized in other comprehensive (loss) income		2,191	(1,318)	(782)	
Total amount recognized in net periodic benefit cost and other comprehensive income (loss)	\$	762	(2,024)	(1,349)	

The estimated amount of net gain that will be amortized from accumulated other comprehensive loss into net periodic benefit income over the next fiscal year is approximately \$556 thousand while the estimated amount of prior service cost that will be amortized from accumulated other comprehensive loss into net periodic benefit loss over the next fiscal year is approximately \$100 thousand.

Expected Future Benefit Payments

The following benefit payments are expected to be paid:

(dollars in thousands)

Year	Postretirement Benefi	ts
2019	\$ 17	7
2020	16	3
2021	13	7
2022	15	55
2023	17	2
2024 - 2028	1,22	5

The discount rate assumption used to determine benefit obligations at December 31 is as follows:

2018	2017	2016
4.53%	3.93	4.41

The assumptions used to determine net periodic pension expense (benefit) for the years ended December 31 are as follows:

_	2018	2017	2016
Discount rate	3.93%	4.41	4.55
Expected long-term rate of return on assets, net of tax	4.50	3.75	3.75

The annual rate assumption used for purposes of computing the service and interest costs components is determined based upon factors including the yields on high quality corporate bonds and other appropriate yield curves along with analysis prepared by the Company's actuaries.

For measurement purposes, a graded annual rate of increase in the per capita cost of covered benefits (i.e., health care cost trend rate) was assumed for 2018 and thereafter. A one percentage point increase in the assumed health care cost in each year would have an approximate \$1.0 million impact on the accumulated postretirement benefit obligation as of December 31, 2018, while a 1% decrease would have an approximate (\$821) thousand impact. The impact on the interest and service components of net periodic postretirement benefit credit for the year ended December 31, 2018 would be \$51 thousand for a one percentage point increase and (\$40) thousand for a one percentage point decrease.

(d) Components of Accumulated Other Comprehensive Loss Related to Retirement and Postretirement Benefit Plans

The following table details the change in the components of other comprehensive (loss) income related to the retirement plan and the postretirement benefit plan, at December 31, 2018 and 2017, respectively:

(dollars in thousands)		De	cember 31, 2018	
		Retirement Plan	Post- Retirement Benefit Plan	Total
Change in overfunded position of pension and	e.	2.140	830	2.070
postretirement benefits Prior service cost	\$	2,149	705	2,979 705
Amortization of net actuarial gain		<u>-</u>	556	556
Amortization of prior service credit		-	100	100
Total	\$	2,149	2,191	4,340
	December 31, 2017			
			Post-	
		Retirement	Retirement	
		Plan	Benefit Plan	Total
Change in overfunded position of pension and				
postretirement benefits	\$	(2,240)	(1,584)	(3,824)
Amortization of net actuarial gain (loss)		(67)	356	289
Amortization of prior service cost		-	(90)	(90)
Total	\$	(2,307)	(1,318)	(3,625)

(e) Major Categories of Pension and Postretirement Benefit Plan Assets:

The asset allocations of the Company's pension and postretirement benefit plans at December 31, were as follows:

	Pension Benefit		Postretirement Benefit	
	Plan Assets		Plan Assets	<u> </u>
	2018	2017	2018	2017
Debt Securities	31%	29	29	34
Equity Securities	62	69	62	64
Other	7	2	9	2
Total	100%	100	100	100

The expected long-term rate-of-return on plan assets, noted in sections (a) and (b) above, reflects long-term earnings expectations on existing plan assets. In estimating that rate, appropriate consideration was given to historical returns earned by plan assets and the rates of return expected to be available for reinvestment. Rates of return were adjusted to reflect current capital market assumptions and changes in investment allocations.

The Company's investment policies and strategies for the pension benefit and postretirement benefit plans prescribe a target allocation of 50% to 70% equity securities, 25% to 40% debt securities, and 0% to 10% for other securities for the asset categories. The Company's investment goals are to maximize returns subject to specific risk management policies. Its risk management policies permit direct investments in equity and debt securities and mutual funds while prohibiting direct investment in derivative financial instruments. The Company addresses diversification by the use of mutual fund investments whose underlying investments are in domestic and international debt and equity securities. These mutual funds are readily marketable and can be sold to fund benefit payment obligations as they become payable.

Fair Value of Plan Assets:

Fair value is the exchange price that would be received for an asset in the principal or most advantageous market for the asset in an orderly transaction between market participants on the measurement date.

The Company used the following methods and significant assumptions to estimate the fair value of each type of financial instrument:

Equity mutual funds, Fixed Income mutual funds and Debt Securities: The fair values for investment securities are determined by quoted market prices, if available (Level 1). For securities where quoted prices are not available, fair values are calculated based on market prices of similar securities (Level 2).

The fair value of the plan assets at December 31, 2018 and 2017, by asset category, is as follows:

			Fair Value Measurements at December 31, 2018 Using: Significant		
Retirement Plan					
(dollars in thousands)			Quoted Prices in	Other	Significant
			Active Markets for	Observable	Unobservable
		Carrying	Identical Assets	Inputs	Inputs
		Value	(Level 1)	(Level 2)	(Level 3)
Plan Assets					· · · · ·
Cash and cash equivalents	\$	3,147	3,147	_	-
Equity mutual funds		27,420	27,420	-	-
U.S. government sponsored enterprises		9,376	-	9,376	-
Corporate bonds		3,638	-	3,638	-
Fixed income mutual funds		576	576	-	-
	<u> </u>				
Total Plan Assets	\$	44,157	31,143	13,014	-
			- ***-	lue Measurements	
			- ***-	ber 31, 2018 Usir	
Postretirement Benefits			- ***-		
Postretirement Benefits (dollars in thousands)			Decem Quoted Prices in	ber 31, 2018 Usir	significant
			Decem	ber 31, 2018 Usin Significant	Significant Unobservable
		Carrying	Decem Quoted Prices in	ber 31, 2018 Usin Significant Other	significant
		Carrying Value	Quoted Prices in Active Markets for	ber 31, 2018 Usin Significant Other Observable	Significant Unobservable
		, .	Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs
(dollars in thousands)	<u> </u>	, .	Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs
(dollars in thousands) Plan Assets	<u> </u>	Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs	Significant Unobservable Inputs
(dollars in thousands) Plan Assets Cash and cash equivalents	\$	Value 2,046	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs	Significant Unobservable Inputs
(dollars in thousands) Plan Assets Cash and cash equivalents Equity mutual funds	\$	2,046 13,590	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs
Plan Assets Cash and cash equivalents Equity mutual funds U.S. government sponsored enterprises	\$	2,046 13,590 3,111	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs
Plan Assets Cash and cash equivalents Equity mutual funds U.S. government sponsored enterprises Corporate bonds	\$	2,046 13,590 3,111 3,118	Quoted Prices in Active Markets for Identical Assets (Level 1) 2,046 13,590	ber 31, 2018 Usin Significant Other Observable Inputs (Level 2) 3,111 3,118	Significant Unobservable Inputs

Fair Value Measurements at December 31, 2017 Using:

3.512

3,610

15,109

688

7,810

			Decem	10C1 51, 2017 Using.	
Retirement Plan				Significant	
(dollars in thousands)			Quoted Prices in	Other	Significant
			Active Markets for	Observable	Unobservable
		Carrying	Identical Assets	Inputs	Inputs
		Value	(Level 1)	(Level 2)	(Level 3)
Plan Assets					
Cash and cash equivalents	\$	1,034	1,034	-	-
Equity mutual funds		32,509	32,509	-	-
U.S. government sponsored enterprises		6,920	-	6,920	-
Corporate bonds		6,163	-	6,163	-
Fixed income mutual funds		601	601	-	
T (I DI) A	Ф	47.227	24 144	12.002	
Total Plan Assets	\$	47,227	34,144	13,083	
			Fair Va	lue Measurements at	
				aber 31, 2017 Using:	
Postretirement Benefits			Beccin	Significant	
(dollars in thousands)			Quoted Prices in	Other	Significant
(,			Active Markets for	Observable	Unobservable
		Carrying	Identical Assets	Inputs	Inputs
		Value	(Level 1)	(Level 2)	(Level 3)
Plan Assets					
Cash and cash equivalents	\$	406	406	-	-
Equity mutual funds		14,703	14,703	-	-

At December 31, 2018 and 2017, the majority of the equity mutual funds included in the plan assets of the retirement plan and postretirement benefit plan consist of large-cap index funds, while the remainder of the equity mutual funds consists of mid-cap, small-cap and international funds.

3,512

3,610

22,919

688

There were no transfers between Level 1 and Level 2 in 2018 and 2017.

U.S. government sponsored enterprises

State and political subdivisions

Corporate bonds

Total Plan Assets

The Company made no contributions to its pension and postretirement benefit plans in 2018 or 2017. The Company does not expect to make any contributions to its pension and postretirement benefit plans in 2019.

(f) Incentive and Bonus Plans

During 2006, the Company amended its profit sharing plan to include a 401(k) feature. Under the 401(k) feature, the Company matches 100% of the aggregate salary contribution up to the first 3% of compensation and 50% of the aggregate contribution of the next 3%. No profit sharing contributions were made in 2018, 2017 or 2016 but were replaced with Company contributions to the 401(k) feature of the plan. Expenses related to the plan aggregated \$1.1 million for 2018, \$1.0 million in 2017 and \$986 thousand in 2016.

The Company also has an officers and executive incentive plan. The expense of these plans generally are based on the Company's performance and estimated distributions to participants are accrued during the year and generally paid in the following year. The expense recorded for this plan was \$2.7 million, \$1.9 million and \$1.7 million in 2018, 2017 and 2016, respectively.

The Company has also awarded 1.5 million performance bonus units to the executive officers and directors. These units become vested and exercisable only under a change of control as defined in the plan. The units were awarded based upon the stock price at the time of grant and, if exercised under a change of control, allow the holder to receive the increase in value offered in the exchange over the stock price at the date of grant for each unit, if any. As of December 31, 2018, the weighted average strike price of each unit was \$8.81.

(g) Stock-Based Compensation Plans-Equity Awards

Equity awards are types of stock-based compensation that are to be settled in shares. As such, the amount of compensation expense to be paid at the time of settlement is included in surplus in the Consolidated Statement of Condition.

Under the Amended and Restated TrustCo Bank Corp NY 2010 Equity Incentive Plan (Equity Incentive Plan), the Company may grant stock options and restricted stock to its eligible employees for up to approximately 2.3 million shares of common stock, and may make certain other equity based, cash-settled awards (description in section (h) below) for up to the equivalent of approximately 1.4 million shares of common stock.

Under the Amended and Restated TrustCo Bank Corp NY 2010 Directors Equity Incentive Plan (Directors Plan), the Company may grant stock options and restricted stock to its directors for up to approximately 250 thousand shares of common stock, and may make certain other equity based, cash-settled awards (description in section (h) below) for up to the equivalent of approximately 250 thousand shares of common stock.

Under each of these plans, the exercise price of each option equals the fair value of the Company's stock on the date of grant, and an option's maximum term is ten years. Options vest over five years from the date the options are granted for the employees plans and they are immediately vested under the directors' plans. A summary of the status of TrustCo's stock option awards as of December 31, 2018 and changes during the year then ended, are as follows:

	C	utsta	nding Options	
				Weighted
			Weighted	Average
			Average	Remaining
	Number of		Exercise	Contractual
	Options		Price	Life
Balance, January 1, 2018	742,941	\$	6.78	
New options awarded - 2018	-		-	
Expired options - 2018	-		-	
Options forfeited - 2018	(11,750)		_	
Exercised options - 2018	(176,550)		7.13	
Balance, December 31, 2018	554,641	\$	6.65	5.5 years
	F	Exerci	sable Options	
Balance, December 31, 2018	458,891	\$	6.64	5.3 years

At December 31, 2018, the intrinsic value of outstanding stock options and vested stock options was approximately \$144 thousand and \$140 thousand, respectively. The Company expects all unvested options to vest according to plan provisions.

During 2018, 2017 and 2016, options for 177 thousand, 784 thousand and 241 thousand shares of stock were exercised, respectively. The intrinsic value and related tax benefits of stock options exercised in these years was not material. It is the Company's policy to generally issue stock for stock option exercises from previously unissued shares of common stock or treasury shares.

Unrecognized stock-based compensation expense related to non-vested stock options totaled \$38 thousand at December 31, 2018. At such date, the weighted-average period over which this unrecognized expense was expected to be recognized was 1.59 years. Income tax benefits recognized in the accompanying Consolidated Statements of Income related to stock-based compensation were not material.

Valuation of Stock-Based Compensation: The fair value of the Company's employee and director stock options granted is estimated on the measurement date, which, for the Company, is the date of grant. The Company did not grant new stock option awards in 2018.

During 2018, 2017 and 2016, the Company recognized \$173 thousand, \$150 thousand and \$224 thousand in stock-based compensation expense related to the equity awards, respectively.

(h) Stock-Based Compensation Plans-Liability Awards

Liability awards are types of stock-based compensation that can be settled in cash (not shares). As such, the amount of compensation expense to be paid at the time of settlement is included in accrued expenses and other liabilities in the Consolidated Statement of Condition. The Company granted both service-based and performance based liability awards in 2018, 2017 and 2016.

The activity for service-based awards during 2018 was as follows:

Restricted share units

	Outstanding Units
Balance, December 31, 2017	213,100
New awards granted	104,424
Forfeited awards	(13,350)
Awards settled	(85,747)
Balance, December 31, 2018	218,427

Service-Based Awards: During 2018 and 2017, the Company issued restricted share units to certain eligible officers, executives and its board of directors. The restricted share units do not hold voting powers, and are not eligible for common stock dividends. Depending on the year of the grant the awards either become 100% vested after three years based upon a cliff-vesting schedule, or vest in whole units in equal installments from the first through the third year following the award date. Upon issuance, the fair value of these awards is the fair value of the Company's common stock on the grant date. Thereafter, the amount of compensation expense recognized is based on the fair value of the Company's stock.

During 2018, 2017 and 2016, the Company recognized \$458 thousand, \$633 thousand and \$610 thousand, respectively, in stock-based compensation expense related to these awards. Unrecognized stock-based compensation expense related to the outstanding restricted share units totaled approximately \$1 million at December 31, 2018. During 2018, awards granted in 2015 became fully vested and settled. The weighted average period over which the unrecognized expense is expected to be recognized was approximately 29 months as of December 31, 2018.

The liability related to service-based liability awards was approximately \$526 thousand and \$749 thousand at December 31, 2018 and 2017, respectively.

The activity for performance-based awards during 2018 was as follows:

Performance share units

	Outstanding
	Units
Balance, December 31, 2017	370,100
New awards granted	138,643
Awards settled	(82,076)
Forfeited awards	(17,774)
Balance, December 31, 2018	408,893

Performance Based Awards: During 2018, 2017 and 2016, the Company issued performance share units to certain eligible officers and executives. These units do not hold voting powers, are not eligible for common stock dividends, and become 100% vested after three years based upon a cliff-vesting schedule. Upon issuance, fair value of these units was the fair value of the Company's common stock on the grant date. Thereafter, the amount of compensation expense recognized is based upon the Company's achievement of certain performance criteria in accordance with Plan provisions as well as the fair value of the Company's stock.

For units granted in 2015, those have been fully vested and unpaid. For units granted subsequent to 2015, all of the units are unvested as of December 31, 2018 and the company expects to meet the required performance criteria of the awards.

During 2018, 2017 and 2016, the Company recognized approximately \$644 thousand, \$1.2 million and \$23 thousand, respectively, in stock based compensation expense (benefit) related to these units. Unrecognized stock-based compensation expense related to the outstanding performance share units totaled \$1.6 million at December 31, 2018. The weighted average period over which the unrecognized expense is expected to be recognized was approximately 27 months as of December 31, 2018.

The liability related to performance based liability awards totaled \$1.7 million and \$1.5 million at December 31, 2018 and 2017, respectively.

(10) Commitments and Contingent Liabilities

(a) Leases

The Bank leases certain banking premises. These leases are accounted for as operating leases with minimum rental commitments in the amounts presented below. The majority of these leases contain options to renew.

2019	\$ 7,799
2020	7,622
2021	7,555
2022	7,048
2023	6,673
2024 and after	 32,722
	\$ 69,419

(b) Litigation

Existing litigation arising in the normal course of business is not expected to result in any material loss to the Company.

(c) Outsourced Services

The Company contracted with third-party service providers to perform certain banking functions. The outsourced services include data and item processing for the Bank and trust operations. The service expense can vary based upon the volume and nature of transactions processed. Outsourced service expense was \$7.5 million for 2018, \$6.4 million for 2017 and \$6.2 million in 2016. The Company is contractually obligated to pay these third-party service providers approximately \$7 to \$8 million per year through 2025.

(11) Earnings Per Share

The Company computes earnings per share in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 260, Earnings Per Share ("ASC 260"). TrustCo adopted FASB Staff Position on Emerging Issues Task Force 03-6-1, Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities, as codified in FASB ASC 260-10 ("ASC 260-10"), which clarified that unvested share-based payment awards that contain nonforfeitable rights to receive dividends or divided equivalents (whether paid or unpaid) are participating securities, and thus, should be included in the two-class method of computing earnings per share ("EPS"). Participating securities under this statement include the unvested employees' and directors' restricted stock awards with time-based vesting, which receive nonforfeitable dividend payments. At December 31, 2018, 2017 and 2016, the Company no longer has unvested awards that would be considered participating securities.

A reconciliation of the component parts of earnings per share for 2018, 2017 and 2016 follows:

(dollars in thousands, except per share data)

	2018		2017	2016	
For the years ended December 31:					
Net income	\$	61,445	43,145	42,601	
Weighted average common shares		96,505	96,111	95,548	
Effect of dilutive common stock options		141	111	100	
Weighted average common shares including potential dilutive shares		96,646	96,222	95,648	
Basic EPS	\$	0.637	0.449	0.446	
Diluted EPS	\$	0.636	0.448	0.445	

For the year ended December 31, 2018, there were 319 thousand antidilutive stock options excluded from diluted earnings per share. For the year ended December 31, 2017, there were no antidilutive stock options excluded from diluted earnings per share. The stock options are antidilutive because the strike price is greater than the average fair value of the Company's common stock for the periods presented.

(12) Off-Balance Sheet Financial Instruments

Loan commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract. Commitments generally have fixed expiration dates or other termination clauses and may require a fee. Commitments sometimes expire without being drawn upon. Therefore, the total commitment amounts do not necessarily represent future cash requirements. These arrangements have credit risk essentially the same as that involved in extending loans to customers and are subject to the Bank's normal credit policies, including obtaining collateral. The Bank's maximum exposure to credit loss for loan commitments, including unused lines of credit, at December 31, 2018 and 2017, was \$432.6 million and \$414.3 million, respectively. Approximately 80% of these commitments were for variable rate products at the end of 2018 and 2017.

The Company does not issue any guarantees that require liability-recognition or disclosure, other than its standby letters of credit. The Company has issued conditional commitments in the form of standby letters of credit to guarantee payment on behalf of a customer and guarantee the performance of a customer to a third party. Standby letters of credit generally arise in connection with lending relationships. The credit risk involved in issuing these instruments is essentially the same as that involved in extending loans to customers. Contingent obligations under standby letters of credit totaled approximately \$6.6 million and \$3.8 million at December 31, 2018 and 2017, respectively, and represent the maximum potential future payments the Company could be required to make. Typically, these instruments have terms of 12 months or less and expire unused; therefore, the total amounts do not necessarily represent future cash requirements. Each customer is evaluated individually for creditworthiness under the same underwriting standards used for commitments to extend credit and on-balance sheet instruments. Company policies governing loan collateral apply to standby letters of credit at the time of credit extension. Loan-to-value ratios are generally consistent with loan-to-value requirements for other commercial loans secured by similar types of collateral. The fair value of the Company's standby letters of credit at December 31, 2018 and 2017 was insignificant.

No losses are anticipated as a result of loan commitments or standby letters of credit.

(13) Fair Value

Fair value measurements (ASC 820) defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The standard describes three levels of inputs that may be used to measure fair values:

Level 1 – Quoted prices (unadjusted) for identical assets or liabilities in active markets that the entity can access as of the measurement date.

Level 2 – Significant other observable inputs other than Level 1 prices such as quoted prices or similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.

Level 3 – Significant unobservable inputs that reflect a company's own assumptions about the value that market participants would use in pricing an asset or liability.

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

Securities Available for Sale: The fair value of securities available for sale are determined utilizing an independent pricing service for identical assets or significantly similar securities. The pricing service uses a variety of techniques to arrive at fair value including market maker bids, quotes and pricing models. Inputs to the pricing models include recent trades, benchmark interest rates, spreads and actual and projected cash flows. This results in a Level 2 classification of the inputs for determining fair value. Interest and dividend income is recorded on the accrual method and included in the income statement in the respective investment class under total interest income. The Company does not have any securities that would be designated as level 3.

Other Real Estate Owned: Assets acquired through loan foreclosure are initially recorded at fair value less costs to sell when acquired, establishing a new cost basis. These assets are subsequently accounted for at lower of cost or fair value less estimated costs to sell. Fair value is commonly based on recent real estate appraisals. These appraisals may utilize a single valuation approach or a combination of approaches including comparable sales and the income approach. Adjustments are routinely made in the appraisal process to adjust for differences between the comparable sales and income data available. This results in a Level 3 classification of the inputs for determining fair value.

Impaired Loans: At the time a loan is considered impaired, it is valued at the lower of cost or fair value. Impaired loans carried at fair value generally have had a charge-off through the allowance for loan losses. For collateral dependent loans, fair value is commonly based on recent real estate appraisals. These appraisals may utilize a single valuation approach or a combination of approaches including comparable sales and the income approach. Adjustments are routinely made in the appraisal process to adjust for differences between the comparable sales and income data available. Such adjustments may be significant and typically result in a Level 3 classification of the inputs for determining fair value. When obtained, non-real estate collateral may be valued using an appraisal, net book value per the borrower's financial statements, or aging reports, adjusted or discounted based on management's historical knowledge, changes in market conditions from the time of the valuation, and management's expertise and knowledge of the client and client's business, resulting in a Level 3 fair value classification. Impaired loans are evaluated on a quarterly basis for additional impairment and adjusted accordingly.

Assets and liabilities measured at fair value under ASC 820 on a recurring basis are summarized below:

				Fair Value Mea				
		Carrying		Quoted Prices in Active Markets for Identical Assets		Significant Other Observable Inputs		Significant Unobservable Inputs
(dollars in thousands)		Value		(Level 1)		(Level 2)		(Level 3)
Securities available for sale:								
U.S. government sponsored enterprises	\$	152,160	\$	_	\$	152,160	\$	_
State and political subdivisions	-	173	-	<u>-</u>	-	173	-	_
Mortgage backed securities and collateralized mortgage								
obligations - residential		262,032		_		262,032		_
Corporate bonds		29,938		-		29,938		_
Small Business Administration - guaranteed						,		
participation securities		56,475		-		56,475		_
Other		685		-		685		-
				Fair Value M December 3		17 Using:		
(dollars in thousands)	-	Carryi Val	_	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)
Securities available for sale:								
U.S. government sponsored enterprises	(\$ 137,8	51	\$ -	\$	137,851	\$	_
State and political subdivisions		5.	25	-		525		-
Mortgage backed securities and collateralized mortgage obligations - residential		315,9	83	_		315,983		-
Corporate bonds		40,1	62	-		40,162		-
Small Business Administration - guaranteed participation securities		67,0	59	-		67,059		
Mortgage backed securities and collateralized mortgage		0.5	0.0			0.700		
obligations - commercial		9,70		-		9,700		-
Other		6	85	35		650		
Total securities available for sale	•	\$ 571,9	65	\$ 35	\$	571,930	\$	

There were no transfers between Level 1 and Level 2 in 2018 and 2017.

Assets measured at fair value on a non-recurring basis are summarized below:

Fair Value Measurements at

			December 31,	2018	3 Using:				
(dollars in thousands)	_	Carrying Value	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Valuation technique	Unobservable inputs	Range (Weighted Average)
Other real estate owned	\$	1,675	\$ -	\$	-	\$ 1,675	Sales comparison approach	Adjustments for differences between comparable sales	1% - 14% (7%)
Impaired loans:									
Real estate mortgage - 1 to 4 family		459	-		-	459	Sales comparison approach	Adjustments for differences between comparable sales	5% - 14% (10%)
			Fair Value Mea December 31,		Using:				
(dollars in thousands)		Carrying Value	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Valuation technique	Unobservable inputs	Range (Weighted Average)
Other real estate owned	\$	3,246	\$ -	\$	-	\$ 3,246	Sales comparison approach	Adjustments for differences between comparable sales	1% - 14% (7%)
Impaired loans: Real estate mortgage - 1 to 4 family		844	-			844	Sales comparison approach	Adjustments for differences between comparable sales	5% - 14% (10%)

Other real estate owned, which is carried at fair value less costs to sell, was approximately \$1.7 million at December 31, 2018, and consisted of \$560 thousand of commercial real estate and \$1.1 million of residential real estate properties. A valuation charge of \$769 thousand is included in earnings for the year ended December 31, 2018.

Of the total impaired loans of \$22.3 million at December 31, 2018, \$459 thousand are collateral dependent and are carried at fair value measured on a non-recurring basis. Due to the sufficiency of charge-offs taken on these loans and the adequacy of the underlying collateral, there were no specific valuation allowances for these loans at December 31, 2018. Gross charge-offs related to residential impaired loans included in the table above amounted to \$67 thousand.

Other real estate owned, which is carried at fair value less costs to sell, was approximately \$3.2 million at December 31, 2017, and consisted of \$541 thousand of commercial real estate and \$2.7 million of residential real estate properties. A valuation charge of \$1.1 million is included in earnings for the year ended December 31, 2017.

Of the total impaired loans of \$24.1 million at December 31, 2017, \$844 thousand are collateral dependent and are carried at fair value measured on a non-recurring basis. Due to the sufficiency of charge-offs taken on these loans and the adequacy of the underlying collateral, there were no specific valuation allowances for these loans at December 31, 2017. Gross charge-offs related to residential impaired loans included in the table above amounted to \$151 thousand.

In accordance with ASC 825, the carrying amounts and estimated fair values (exit price) of financial instruments at December 31, 2018 and 2017 are as follows:

(dollars in thousands)		Carrying	Fair Value Measurements at December 31, 2018 Using:						
		Value	Level 1	Level 2	Level 3	Total			
Financial assets:									
Cash and cash equivalents	\$	503,709	503,709	-	=	503,709			
Securities available for sale		501,463	-	501,463	-	501,463			
Held to maturity securities		22,501	=	22,924	=	22,924			
Federal Reserve Bank and Federal Home Loan	ı								
Bank stock		8,953	N/A	N/A	N/A	N/A			
Net loans		3,829,330	=	-	3,753,966	3,753,966			
Accrued interest receivable		11,341	353	2,371	8,617	11,341			
Financial liabilities:									
Demand deposits		405,069	405,069	-	-	405,069			
Interest bearing deposits		3,869,178	2,594,672	1,264,772	-	3,859,444			
Short-term borrowings		161,893	-	161,893	-	161,893			
Accrued interest payable		1,024	104	920	-	1,024			

(dollars in thousands)		Carrying	December 31, 2017 Using:						
		Value	Level 1	Level 2	Level 3	Total			
Financial assets:		<u> </u>							
Cash and cash equivalents	\$	612,740	612,740	=	-	612,740			
Securities available for sale		571,965	35	571,930	-	571,965			
Held to maturity securities		27,551	-	28,701	-	28,701			
Federal Reserve Bank and Federal Home Loar	ı								
Bank stock		8,779	N/A	N/A	N/A	N/A			
Net loans		3,592,237	-	=	3,598,213	3,598,213			
Accrued interest receivable		11,441	243	2,440	8,758	11,441			
Financial liabilities:									
Demand deposits		398,399	398,399	-	-	398,399			
Interest bearing deposits		3,774,927	2,707,961	1,076,213	-	3,784,174			
Short-term borrowings		242,991	-	242,991	-	242,991			
Accrued interest payable		537	77	460	-	537			

Fair Value Measurements at

(14) Regulatory Capital Requirements

Banks and bank holding companies are subject to regulatory capital requirements administered by federal banking agencies. Capital adequacy regulations and, additionally for banks, the 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. Failure to meet capital requirements can result in regulatory action. The final rules implementing Basel Committee on Banking Supervision's capital guidelines for U.S. banks (Basel III rules) became effective for the Company on January 1, 2015 with full compliance with all of the requirements being phased in over a multi-year schedule, and fully phased in by January 1, 2019. The capital rules include a capital conservation buffer that is designed to absorb losses during periods of economic stress and to require increased capital levels before capital distributions and certain other payments can be made. Failure to meet the full amount of the buffer will result in restrictions on the Company's ability to make capital distributions, including dividend payments and stock repurchases, and to pay discretionary bonuses to executive officers. Implementation of the buffer began in January 2016 at the 0.625% level, and the buffer increases 0.625% each year thereafter until it reaches 2.5% on January 1, 2019. Management believes, as of December 31, 2018, the Company and Bank meet all capital adequacy requirements to which they are subject.

Prompt corrective action regulations provide five classifications: well capitalized, adequately capitalized, undercapitalized, significantly undercapitalized, and critically undercapitalized, although these terms are not used to represent overall financial condition. If a bank is adequately capitalized, regulatory approval is required to accept brokered deposits. If a bank is undercapitalized, capital distributions are limited, as is asset growth and expansion, and capital restoration plans are required. The federal banking agencies are required to take certain supervisory actions (and may take additional discretionary actions) with respect to an undercapitalized institution or its holding company. Such actions could have a direct material effect on an institution's or its holding company's financial statements. As of December 31, 2018 and December 31, 2017, the most recent regulatory notifications categorized the Bank as well capitalized under the regulatory framework for prompt corrective action. There are no conditions or events since that notification that management believes have changed the Bank's category.

The following is a summary of actual capital amounts and ratios as of December 31, 2018 and 2017, for Trustco Bank:

	As of December 31, 2018				Adequately	
(dollars in thousands)		Amount	Ratio	Capitalized(1)	Capitalized(1)(2)	
Tier 1 leverage ratio	\$	484,581	9.767%	5.000%	4.000%	
Common equity Tier 1 capital		484,581	18.233	6.500	6.380	
Tier 1 risk-based capital		484,581	18.233	8.000	7.880	
Total risk-based capital		517,948	19.489	10.000	9.880	
		As of December	31, 2017	Well	Adequately	
(dollars in thousands)		Amount	Ratio	Capitalized(1)	Capitalized(1)	
Tier 1 leverage ratio	\$	444,931	9.152%	5.000%	4.000%	
Common equity Tier 1 capital		444,931	17.460	6.500	5.750	
Tier 1 risk-based capital		444,931	17.460	8.000	7.250	
Total risk-based capital		476,942	18.720	10.000	9.250	

The following is a summary of actual capital amounts and ratios as of December 31, 2018 and 2017 for TrustCo on a consolidated basis.

		As of December		Minimum for Capital Adequacy plus Capital Conservation
(dollars in thousands)		Amount	Ratio	Buffer(1)(2)
Tier 1 leverage ratio	\$	499,626	10.129%	4.000%
Common equity Tier 1 capital		499,626	18.790	6.380
Tier 1 risk-based capital		499,626	18.790	7.880
Total risk-based capital		533,009	20.046	9.880
	_	As of Decembe	r 31, 2017	Minimum for Capital Adequacy plus Capital Conservation
(dollars in thousands)	_	Amount	Ratio	Buffer (1)(2)
m: 11	Ф	450.561	0.4400/	4.0000/
Tier 1 leverage ratio	\$	459,561	9.449%	4.000%
Common equity Tier 1 capital		459,561	18.020	5.750
Tier 1 risk-based capital		459,561	18.020	7.250
Total risk-based capital		491,590	19.280	9.250

⁽¹⁾ Federal regulatory minimum requirements to be considered to be Well Capitalized and Adequately Capitalized

⁽²⁾ The December 31, 2018 and 2017 common equity tier 1, tier 1 risk-based, and total risk-based capital ratios include a transition capital conservation buffer of 1.88 percent, and 1.25 percent repectively.

(15) Accumulated Other Comprehensive Loss

The following is a summary of the accumulated other comprehensive loss balances, net of tax:

				Year ended 12/31/2018		
(dollars in thousands)		Balance at 12/31/2017	Other Comprehensive Income (loss)- Before Reclassifications	Amount reclassified from Accumulated Other Comprehensive Income	Other Comprehensive Income (loss)- year ended 12/31/2018	Balance at 12/31/2018
Net unrealized holding loss on securities available for sale, net of tax	\$	(5,030)	(3,944)	-	(3,944)	(8,974)
Net change in overfunded position in pension and postretirement plans arising during the year, net of tax		3,054	(2,727)	-	(2,727)	327
Net change in net actuarial loss and prior service cost on pension and pension and postretirement benefit plans, net of tax		170	· · · · · · · · · · · · · · · · · · ·	(486)	(486)	(316)
Tax Cuts and Jobs Act of 2017, Reclassification from AOCI to Retained Earnings, Tax Effect	_	<u>-</u>	-	(1,346)	-	(1,346)
Accumulated other comprehensive loss, net of tax	\$	(1,806)	(6,671)	(1,832)	(7,157)	(10,309)
				Year ended 12/31/2017		
			Other Comprehensive Income (loss)-	Amount reclassified from Accumulated	Other Comprehensive Income (loss)-	
(dollars in thousands)		Balance at 12/31/2016	Before Reclassifications	Other Comprehensive Income	year ended 12/31/2017	Balance at 12/31/2017
Net unrealized holding loss on securities available for sale, net of tax	\$	(6,762)	1,732		1,732	(5,030)
Net change in overfunded position in pension and postretirement plans arising during the year, net of tax		42	3,012	_	3,012	3,054
Net change in net actuarial loss and prior service cost on pension and pension and postretirement benefit plans, net			·	(200)		
of tax		469	-	(299)	(299)	170
Accumulated other comprehensive loss, net of tax	\$	(6,251)	4,744	(299)	4,445	(1,806)
				Year ended 12/31/2016		
		Balance at	Other Comprehensive Income (loss)- Before	Amount reclassified from Accumulated Other Comprehensive	Other Comprehensive Income (loss)- year ended	Balance at
(dollars in thousands)		12/31/2015	Reclassifications	Income	12/31/2016	12/31/2016
Net unrealized holding loss on securities available for sale, net of tax	\$	(4,492)	(1,869)	(401)	(2,270)	(6,762)
Net change in overfunded position in pension and postretirement plans arising during the year, net of tax		(758)	800	-	800	42
Net change in net actuarial loss and prior service cost on pension and pension and postretirement benefit plans, net of tax		469	-	-	-	469
Accumulated other comprehensive loss, net of tax	\$	(4,781)	(1,069)	(401)	(1,470)	(6,251)

The following represents the reclassifications out of accumulated other comprehensive loss for the years ended December 31, 2018, 2017 and 2016:

(dollars in thousands)]	December 31,		
	 2018	2017	2016	Affected Line Item in Financial Statements
Unrealized gains on securities available for sale:				
Realized gain on securities transactions	\$ -	-	668	Net gain on securities transactions
Income tax expense	 -	-	(267) Income taxes
Net of tax	 -	-	401	

Amortization of pension and postretirement benefit

items:			
Amortization of net actuarial gain (loss)	556	289	90 Salaries and employee benefits
Amortization of prior service cost	100	(90)	(90) Salaries and employee benefits
Income tax benefit	 (170)	100	- Income taxes
Net of tax	 486	299	-
Total reclassifications, net of tax	\$ 486	299	401

(16) Revenue from Contracts with Customers

All of the Company's revenue from contracts with customers in the scope of ASC 606 is recognized within Non-Interest Income. The following table presents the Company's sources of Non-Interest Income for the years ended December 31, 2018 and 2017. Items outside the scope of ASC 606 are noted as such.

(dollars in thousands)	 For the years December	
	 2018	2017
Non-interest income		
Service Charges on Deposits		
Overdraft fees	\$ 3,543	3,492
Other	455	477
Interchange Income	4,822	4,743
Wealth management fees	6,283	6,584
Other (a)	2,978	3,077
Total non-interest income	\$ 18,081	18,373

(a) Not within the scope of ASC 606.

A description of the Company's revenue streams accounted in accordance with ASC 606 as follows:

<u>Service charges on Deposit Accounts</u>: The Company earns fees from its deposit customers for transaction-based, account maintenance and overdraft services. Transaction-based fees, which include services such as stop payment charges, statement rendering and ACH fees, are recognized at the time the transaction is executed as that is the point in time the Company fulfills the customer's request. Account maintenance fees, which relate primarily to monthly maintenance, are earned over the course of a month, representing the period over which the Company satisfies the performance obligation. Overdraft fees are recognized at the point in time that the overdraft occurs. Service charges on deposits are withdrawn from the customer's account balance.

Interchange Income: Interchange revenue primarily consists of interchange fees, volume-related incentives and ATM charges. As the card-issuing bank, interchange fees represent our portion of discount fees paid by merchants for credit / debit card transactions processed through the interchange network. The levels and structure of interchange rates are set by the card processing companies and are based on cardholder purchase volumes. The Company earns interchange income as cardholder transactions occur and interchange fees are settled on a daily basis concurrent with the transaction processing services provided to the cardholder.

Wealth Management fees: Trustco Financial Services provides a comprehensive suite of trust and wealth management products and services, including financial and estate planning, trustee and custodial services, investment management, corporate retirement plan recordkeeping and administration of which a fee is charged to manage assets for investment or transact on accounts. These fees are earned over time as the Company provides the contracted monthly or quarterly services and are generally assessed over the period in which services are performed based on a percentage of the fair value of assets under management or administration. Other services are based on a fixed fee for certain account types, or based on transaction activity and are recognized when services are rendered. Fees are withdrawn from the customer's account balance.

Gains/Losses on Sales of Other real Estate Owned "OREO": The Company records a gain or loss from the sale of OREO when control of the property transfers to the buyer, which generally occurs at the time of an executed deed. When the company finances the sale of OREO to the buyer, the Company assesses whether the buyer is committed to perform their obligations under the contract and whether collectability of the transaction price is probable. Once these criteria are met, the OREO asset is derecognized and the gain or loss on sale is recorded upon the transfer of control of the property to the buyer. In determining the gain or loss on the sale, the Company adjusts the transaction price and related gain/(loss) on sale if a significant financing component is present.

(17) Recent Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update ("ASU") 2014-09, "Revenue from Contracts with Customers (Topic 606)" which 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 Company has adopted this ASU on January 1, 2018. Upon adoption the Company determined that there were no accumulated adjustments needed and no changes to the patterns on how the company recognized revenue. The Company did add disclosures for the items in-scope as described in Note 16.

In January 2016, the FASB issued ASU No. 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities" which amended existing guidance to improve accounting standards for financial instruments including clarification and simplification of accounting and disclosure requirements and the requirement for public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes. The ASU was adopted on January 1, 2018, and does not significantly impact the Company's consolidated financial statements. The Company has amended disclosures to comply with the exit price notion as required under the ASU for the period ended September 30, 2018.

In February 2018, the FASB issued ASU 2018-02, "Income statement – Reporting Comprehensive Income (Topic 220) Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income" which will allow a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act. These amendments are effective for all entities for fiscal years beginning after December 15, 2018. For Interim periods within those fiscal years, early adoption of the amendment is permitted including public business entities for reporting periods for which financial statements have not yet been issued. The Company did adopt the ASU in the first quarter of 2018 and reclassified the stranded tax effect in accumulated other comprehensive income to retained earnings in the period ended March 31, 2018.

In February 2016, the FASB issued ASU No. 2016-02, "Leases" which amended existing guidance to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. These amendments are effective for public business entities for annual periods and interim periods within those annual periods beginning after December 15, 2018. The Company will adopt the ASU in the first quarter of 2019 and expects an increase in the lease assets and lease liabilities of approximately \$50 million to \$60 million, with no material effect on the Company's key financial ratios.

In September 2016, the FASB released ASU 2016-13, "Financial Instruments – Credit Losses" which amended existing guidance to replace current generally accepted accounting principles used to measure a reporting entity's credit losses. The main objective of this update is to provide financial statement users with more decision-useful information about the expected credit losses on financial instruments and other commitments to extend credit held by a reporting entity at each reporting date. To achieve this objective, the amendments in this update replace the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. These amendments are effective for public business entities for annual periods and interim periods within those annual periods beginning after December 15, 2019. The ASU represents a significant departure from current GAAP and the Company is evaluating the impact of the ASU on its consolidated financial statements, which includes developing a roadmap for implementation of the new standard. The Company has formed a committee which is performing implementation planning and evaluating the impact of the ASU on its consolidated financial statements. In addition, the Company has selected a software vendor for the CECL model and are working with outside consultants to assist with implementation.

(18) Parent Company Only

The following statements pertain to TrustCo Bank Corp NY (Parent Company):

Statements of Comprehensive Income

(dollars in thousands)		Years en	ded December 31,	
		2018	2017	2016
Income:				
Dividends and interest from subsidiaries	\$	24,920	24,510	24,498
Net gain on securities transactions		-	-	-
Miscellaneous income		-	-	<u>-</u>
Total income		24,920	24,510	24,498
Evenones				
Expense:		122	26	21
Operating supplies Professional services			122	=-
		438		461
Miscellaneous expense	_	1,755	2,573	1,258
Total expense		2,315	2,721	1,740
Income before income taxes and subsidiaries' undistributed earnings		22,605	21,789	22,758
Income tax benefit		(523)	(1,171)	(578)
Income before subsidiaries' undistributed earnings		23,128	22,960	23,336
Equity in undistributed earnings of subsidiaries		38,317	20,185	19,265
Net income	\$	61,445	43,145	42,601
Change in other comprehensive (loss) income		(7,157)	4,445	(1,470)
Comprehensive income	\$	54,288	47,590	41,131

Statements of Condition

(dollars in thousands)	December		
	 2018	2017	
Assets:			
Cash in subsidiary bank	\$ 22,665	21,773	
Investments in subsidiaries	474,838	443,692	
Securities available for sale	35	35	
Other assets	683	771	
Total assets	 498,221	466,271	
Liabilities and shareholders' equity:			
Accrued expenses and other liabilities	 8,350	7,964	
Total liabilities	8,350	7,964	
Shareholders' equity	489,871	458,307	
Total liabilities and shareholders' equity	\$ 498,221	466,271	

Statements of Cash Flows

(dollars in thousands)	 Years en	ided December 31,	
	 2018	2017	2016
Increase/(decrease) in cash and cash equivalents:			
Cash flows from operating activities:			
Net income	\$ 61,445	43,145	42,601
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in undistributed earnings of subsidiaries	(38,317)	(20,185)	(19,265)
Stock based compensation expense	173	150	224
Net change in other assets and accrued expenses	214	853	(196)
Total adjustments	(37,930)	(19,182)	(19,237)
Net cash provided by operating activities	23,515	23,963	23,364
Cash flows from financing activities:			
Proceeds from exercise of stock options	1,259	5,236	1,368
Dividends paid	(25,555)	(25,184)	(25,055)
Payments to acquire treasury stock	(718)	(4,608)	(701)
Proceeds from sales of treasury stock	 2,391	2,480	2,447
Net cash used in financing activities	 (22,623)	(22,076)	(21,941)
Net increase in cash and cash equivalents	892	1,887	1,423
Cash and cash equivalents at beginning of year	21,773	19,886	18,463
	 •		
Cash and cash equivalents at end of year	\$ 22,665	21,773	19,886

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Branch Locations

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Altamont Ave. West Office 1900 Altamont Ave. Rotterdam, NY

Telephone: (518) 355-1900

Amsterdam Office 4931 Route 30 Amsterdam, NY

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Ardsley Office 33-35 Center St. Ardsley, NY

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Ballston Spa Office 235 Church Ave. Ballston Spa, NY

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Balltown Road Office 1475 Balltown Rd. Niskayuna, NY

Telephone: (518) 377-2460

Brandywine Office 1048 State St. Schenectady, NY

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Briarcliff Manor Office 75 North State Rd. Briarcliff Manor, NY Telephone: (914) 762-7133

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Bronxville, NY

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Telephone: (518) 426-7291

Chatham Office 193 Hudson Ave. Chatham, NY

Telephone: (518) 392-0031

Clifton Country Road Office 7 Clifton Country Rd. Clifton Park, NY

Telephone: (518) 371-5002

Clifton Park Office 1026 Route 146 Clifton Park, NY

Telephone: (518) 371-8451

Cobleskill Office 104 Merchant Pl. Cobleskill, NY

Telephone: (518) 254-0290

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Delmar Office 167 Delaware Ave. Delmar, NY

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Orlando, FL

Telephone: (407) 207-3773

Juno Beach Office 14051 US Highway 1 Juno Beach, FL

Telephone: (561) 630-4521

Lady Lake Office

873 North US Highway 27/441

Lady Lake, FL

Telephone: (352) 205-8893

Lake Brantley Office 909 North SR 434 Altamonte Springs, FL Telephone: (407) 339-3396

Lake Mary Office

350 West Lake Mary Blvd.

Sanford, FL

Telephone: (407) 330-7106

Lake Nona Office 9360 Narcoossee Rd. Orlando, FL (407) 801-7330

Lake Square Office 10105 Route 441 Leesburg, FL

Telephone: (352) 323-8147

Lee Road Office 1084 Lee Rd., Suite 11

Orlando, FL

Telephone: (407) 532-5211

Lee Vista Office

8288 Lee Vista Blvd., Suite E

Orlando, FL

Telephone: (321) 235-5583

Leesburg Office

1330 Citizens Blvd., Suite 101

Leesburg, FL

Telephone: (352) 365-1305

Maitland Office

9400 US Route 17/92, Suite 101

Maitland, FL

Telephone: (407) 332-6071

Melbourne Office 2481 Croton Rd. Melbourne, FL

Telephone: (321) 752 0446

Metro West Office 2619 S. Hiawassee Rd. Orlando, FL

Telephone: (407) 293-1580

North Clermont Office 12302 Roper Blvd. Clermont, FL

Telephone: (352) 243-2563

Orange City Office 902 Saxon Blvd., Suite 101 Orange City, FL Telephone: (386) 775-1392

Ormond Beach Office 115 North Nova Rd. Ormond Beach, FL Telephone: (386) 256-3813

Osprey Office 1300 South Tamiami Trl. Osprey, FL

Telephone: (941) 918-9380

Oviedo Office 1875 West County Rd. 419

Suite 600 Oviedo, FL

Telephone: (407) 365-1145

Pleasant Hill Commons Office 3307 South Orange Blossom Trl.

Kissimmee, FL

Telephone: (407) 846-8866

Port Orange Office 3751 Clyde Morris Blvd. Port Orange, FL

Telephone: (386) 322-3730

Rinehart Road Office 1185 Rinehart Rd. Sanford, FL

Telephone: (407) 268-3720

Sarasota Office 2704 Bee Ridge Rd. Sarasota, FL

Telephone: (941) 929-9451

South Clermont Office 16908 High Grove Blvd.

Clermont, FL

Telephone: (352) 243-9511

Stuart Office

951 SE Federal Highway

Stuart, FL

Telephone: (772) 286-4757

Sun City Center 4441 Sun City Center Sun City Center, FL Telephone: (813) 633-1468

Sweetwater Office 671 North Hunt Club Rd. Longwood, FL

Telephone: (407) 774-1347

Tuskawilla Road Office 1295 Tuskawilla Rd., Suite 10 Winter Springs, FL

Telephone: (407) 695-5558

Venice Office 2057 South Tamiami Trl.

Venice, FL

Telephone: (941) 496-9100

Vero Beach Office 4125 20th Street Vero Beach, FL

Telephone: (772) 492-9295

Westwood Plaza Office 4942 West State Route 46

Suite 1050 Sanford, FL

Telephone: (407) 321-4925

Windermere Office 2899 Maguire Rd. Windermere, FL

Telephone: (407) 654-0498

Winter Garden Office 16118 Marsh Rd. Winter Garden, FL

Telephone: (407) 654-4609

Winter Haven Office

7476 Cypress Gardens Blvd. Southeast

Winter Haven, FL

Telephone: (863) 326-1918

Winter Park Office 1211 N. Orange Ave. Winter Park, FL

Telephone: (407) 755-6707

Winter Springs Office 851 East State Route 434 Winter Springs, FL

Telephone: (407) 327-6064

Massachusetts

Allendale Office 5 Cheshire Rd. Suite 18 Pittsfield, MA

Telephone: (413) 236-8400

Great Barrington Office 326 Stockbridge Rd. Great Barrington, MA Telephone: (413) 644-0054

Lee Office 43 Park St. Lee, MA

Telephone: (413) 243-4300

Pittsfield Office 1 Dan Fox Dr. Pittsfield, MA

Telephone: (413) 442-1330

New Jersey

Northvale Office 220 Livingston St. Northvale, NJ

Telephone: (201) 750-1501

Ramsey Office 385 North Franklin Tpk. Ramsey, NJ

Telephone: (201) 934-1429

Vermont

Bennington Office 215 North St. Bennington, VT

Telephone: (802) 447-4952

EXECUTIVE OFFICERS

CHAIRMAN, PRESIDENT AND CHIEF **EXECUTIVE OFFICER**

Robert J. McCormick

EXECUTIVE VICE PRESIDENT AND CHIEF **OPERATIONS OFFICER**

Kevin M. Curley

EXECUTIVE VICE PRESIDENT AND CHIEF RISK OFFICER

Robert M. Leonard

EXECUTIVE VICE PRESIDENT AND CHIEF FINANCIAL OFFICER

Michael M. Ozimek

EXECUTIVE VICE PRESIDENT AND CHIEF LENDING OFFICER

Scot R. Salvador

SENIOR VICE PRESIDENT AND

TREASURER

Eric W. Schreck

GENERAL COUNSEL AND CORPORATE

SECRETARY

Michael J. Hall

Directors of TrustCo Bank Corp NY are also Directors of Trustco Bank

HONORARY DIRECTORS

Lionel O. Barthold Robert A. McCormick

Nancy A. McNamara

BOARD OF DIRECTORS

Dennis A. De Gennaro, President Camelot Associates Corporation

Commercial and Residential Construction

Brian C. Flynn, CPA

KPMG LLP

Retired Partner

Lisa M. Lucarelli, Owner

LMKD Properties, LLC

Property Management

Thomas O. Maggs, President

Maggs & Associates

Insurance Agency

Anthony J. Marinello, M.D., Ph.D.

Physician

Robert J. McCormick,

Chairman, President and Chief Executive Officer

TrustCo Bank Corp NY

Chairman, TrustCo Bank Corp NY

William D. Powers,

Powers & Co., LLC

Retired Partner

John S. Morris, Ph.D

Richard J. Murray, Jr.

James H. Murphy, D.D.S.

William F. Terry

Trustco Bank Officers

CHAIRMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER

Robert J. McCormick

EXECUTIVE VICE PRESIDENT AND CHIEF OPERATIONS OFFICER

Kevin M. Curley

EXECUTIVE VICE PRESIDENT AND CHIEF RISK OFFICER

Robert M. Leonard

EXECUTIVE VICE PRESIDENT AND CHIEF FINANCIAL OFFICER

Michael M. Ozimek

EXECUTIVE VICE PRESIDENT AND CHIEF LENDING OFFICER

Scot R. Salvador

GENERAL COUNSEL AND CORPORATE SECRETARY

Michael J. Hall, Esq.

ACCOUNTING/FINANCE

Vice Presidents Andrea A. McGuire Michael Rydberg Officer

Lynn M. Hallenbeck

AUDIT

Director of Internal Audit

Daniel R. Saullo

Officers

Kenneth E. Hughes Jr. Jeff P. Klingbeil

Allison R. Pillans

BRANCH ADMINISTRATION

Senior Vice President and Florida Regional President

Eric W. Schreck

Administrative Vice President

Carly K. Batista

Assistant Vice Presidents

Mark J. Cooper Gloryvel Morales Jocelyn E. Vizcara

Officers

Victor J. Berger

BRANCH ADMINISTRATION

(continued)

William B. Jansz Lesly Jean-Louis Kevin R. Mason Nicolette C. Messina

Carmen Ramjeet Pratik A. Shah Berkley K. Young

COLLECTIONS/ OPERATIONS/

CREDIT

Vice Presidents Stacy L. Marble Michael V. Pitnell

Officers

Aislinn E. Melia June M. Ryder

COMPLIANCE/ RISK/ BSA/ CREDIT ADMINISTRATION

Administrative Vice President and Chief Compliance Officer and Information

Security Officer

Michael J. Ewell

Administrative Vice President

Michael J. Lofrumento

Vice President

Lara Ann Gough

Assistant Vice President

Jennifer L. Meadows

Officers

Amanda L. Biance

James A.P. McCarthy, Esq.

FINANCIAL SERVICES

Administrative Vice President and

Chief Trust Officer

Patrick J. LaPorta, Esq.

Vice President

Thomas M. Poitras

Officers

Michael D. Bates

John W. Bresonis

William J. Heslin

Clint M. Mallard

Lauren A. Maxwell

GENERAL SERVICES

Officer

Joseph N. Marley

INFORMATION TECHNOLOGY/ PLANNING AND SYSTEMS

Administrative Vice President

John R. George

Vice President and

Chief Technology Officer

Volney R. LaRowe

Officers

Jonathan R. Goodell

Michael F. McMahon

LENDING

Administrative Vice President

Michelle L. Simmonds

Vice President

Patrick M. Canavan

Assistant Vice Presidents

Amy E. Anderson

Suzanne E. Breen

Officers

Kevin P. Bailey

Rebecca L. O'Hare

Joseph M. Rice

MARKETING

Vice President

Adam E. Roselan

PERSONNEL/ QUALITY CONTROL/

TRAINING

Vice President and

Director of Human Resources

Mary-Jean Riley

Assistant Vice President

Jessica M. Marshall

Officers

Takla A. Awad

Jason T. Goodell

General Information

ANNUAL MEETING

Thursday, May 23, 2019 10:00 AM Trustco Bank's Loan Center 6 Metro Park Road Albany, NY 12205

CORPORATE HEADOUARTERS

5 Sarnowski Drive Glenville, NY 12302 (518) 377-3311

DIVIDEND REINVESTMENT PLAN

A Dividend Reinvestment Plan is available to shareholders of TrustCo Bank Corp NY. It provides for the reinvestment of cash dividends and optional cash payments to purchase additional shares of TrustCo stock. The Dividend Reinvestment Plan has certain administrative charges and provides a convenient method of acquiring additional shares. Computershare acts as administrator for this service and is the agent for shareholders in these transactions. Shareholders who want additional information may contact Computershare at 1-800-368-5948.

DIRECT DEPOSIT OF DIVIDENDS

Electronic deposit of dividends, which offers safety and convenience, is available to TrustCo shareholders who wish to have dividends deposited directly to personal checking, savings or other accounts. If you would like to arrange direct deposit, please write to Computershare listed as transfer agent at the bottom of this page.

FORM 10-K

TrustCo Bank Corp NY will provide, without charge, a copy of its Form 10-K for the year ended December 31, 2018 upon written request. Requests and related inquiries should be directed to Robert M. Leonard, Executive Vice President and Chief Risk Officer, TrustCo Bank Corp NY, P.O. Box 380, Schenectady, New York 12301-0380.

CODE OF CONDUCT

TrustCo Bank Corp NY will provide, without charge, a copy of its Code of Conduct upon written request. Requests and related inquiries should be directed to Robert M. Leonard, Executive Vice President and Chief Risk Officer, TrustCo Bank Corp NY, P.O. Box 1082, Schenectady, New York 12301-1082.

NASDAQ SYMBOL: TRST

The Corporation's common stock trades on The Nasdaq Stock Market under the symbol TRST. There were approximately 11,575 shareholders of record of TrustCo common stock as of January 19, 2019.

SUBSIDIARIES:

Trustco Bank

Glenville, New York Member FDIC (and its wholly owned subsidiaries)

Trustco Realty Corp

Glenville, New York

Trustco Insurance Agency, Inc.

Glenville, New York

ORE Property, Inc.

Glenville, New York (and its wholly owned subsidiaries)

ORE Property One, Inc.

Orlando, Florida

ORE Property Two, Inc.

Orlando, Florida

ORE Subsidiary Corporation

Glenville, New York

TRANSFER AGENT

Computershare Regular Mail PO BOX 505000 Louisville, KY 40233-5000 UNITED STATES

Overnight Delivery 462 South 4th Street Suite 1600 Louisville, KY 40202 UNITED STATES

Toll Free: 1-800-368-5948 or 1-781-575-4223

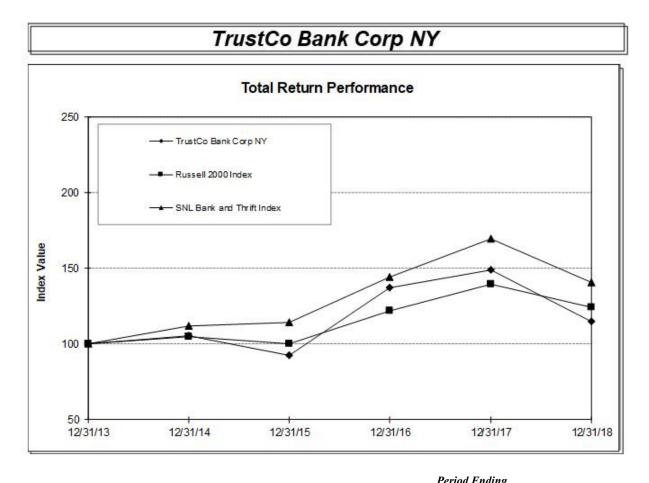
Trustco Bank ${}^\circledR$ is a registered service mark with the U.S. Patent & Trademark Office.

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Share Price Information

The following graph shows changes over a five-year period in the value of \$100 invested in: (1) TrustCo's common stock; (2) Russell 2000 and (3) the SNL Bank and Thrift Index, an industry group compiled by S&P Global Market Intelligence, that includes all major exchange (NYSE, NYSE MKT, NASDAQ) banks and thrifts in S&P's coverage universe. The index included 398 companies as of February 15, 2019. A list of the component companies can be obtained by contacting TrustCo.



			Perioa Ena	ung		
Index	12/31/13	12/31/14	12/31/15	12/31/16	12/31/17	12/31/18
TrustCo Bank Corp NY	100.00	105.10	92.60	137.12	148.84	114.58
Russell 2000 Index	100.00	104.89	100.26	121.63	139.44	124.09
SNL Bank and Thrift Index	100.00	111.63	113.89	143.78	169.07	140.45

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SUBSIDIARIES OF TRUSTCO BANK CORP NY

Trustco Bank	Federal savings bank
ORE Subsidiary Corp.	New York corporation
Trustco Realty Corp.	New York corporation (Subsidiary of Trustco Bank)
Trustco Insurance Agency, Inc.	New York corporation (Subsidiary of Trustco Bank)
ORE Property, Inc.	New York corporation (Subsidiary of Trustco Bank)
ORE Property One, Inc.	Florida corporation (Subsidiary of ORE Property, Inc.)
ORE Property Two, Inc.	Florida corporation (Subsidiary of ORE Property, Inc.)

Each subsidiary does business under its own name. The activities of each are described in Part I, Item 1 of Form 10-K.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors TrustCo Bank Corp NY

We consent to incorporation by reference in the Registration Statements, Form S-8 (No. 333-175868), Form S-8 (No. 333-175867), Form S-8 (No. 333-21685), Form S-3 (No. 333-218227), and Form S-3 (No. 333-217712). o f TrustCo Bank Corp NY (the "Company") of our report dated March 1, 2019, with respect to the consolidated financial statements of TrustCo Bank Corp NY and the effectiveness of internal control over financial reporting which report is incorporated by reference in the Annual Report on Form 10-K of TrustCo Bank Corp NY for the year ended December 31, 2018.

/s/ Crowe LLP

New York, New York March 1, 2019

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that each of the undersigned, being a director of TrustCo Bank Corp NY, a New York corporation (the "Company"), hereby constitutes and appoints Michael M. Ozimek and Robert M. Leonard, and each of them, his or her true and lawful attorney-in-fact and agent, with full power to act separately and full power of substitution and resubstitution, for him and in his name, place and stead in any and all capacities, to sign the Annual Report on Form 10-K for the year ended December 31, 2018, and any amendments thereto, each in such form as they or any one of them may approve, and to file the same with all exhibits thereto and other documents in connection therewith with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing as fully and to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them or their substitute or resubstitute, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand on this 19th day of February, 2019.

/s/ Brian C. Flynn	/s/ Dennis A. De Gennaro
Brian C. Flynn	Dennis A. De Gennaro
/s/ Robert J. McCormick	/s/ Thomas O. Maggs
Robert J. McCormick	Thomas O. Maggs
/s/ William D. Powers	/s/ Dr. Anthony J. Marinello
William D. Powers	Dr. Anthony J.Marinello
/s/ Lisa M. Lucarelli	
Lisa M. Lucarelli	

Exhibit 31(i)(a)

Certification

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

Date: March 1, 2019

/s/ Robert J. McCormick
Robert J. McCormick
Chairman President and Chief Evecu

Chairman, President and Chief Executive Officer

Exhibit 31(i)(b)

Certification

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

Date: March 1, 2019

/s/ Michael M. Ozimek Michael M. Ozimek

Executive Vice President and Chief Financial Officer

Section 1350 Certifications

In connection with the Annual Report of TrustCo Bank Corp NY (the "Company") on Form 10-K for the period ending December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned hereby certifies pursuant to 18 U.S. C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ Robert J. McCormick
Robert J. McCormick
Chairman, President and Chief Executive Officer

/s/ Michael M. Ozimek
Michael M. Ozimek
Executive Vice President and Chief Financial Officer

March 1, 2019