CASS INFORMATION SYSTEMS INC
Form 10-K
March 01, 2019
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _______ to _______

Commission file number 000-20827

CASS INFORMATION SYSTEMS, INC.
(Exact name of registrant as specified in its charter)

Missouri	43-1265338
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

12444 Powerscourt Drive, Suite 550, St. Louis, Missouri 63131		(314) 506-5500
(Address of principal executive offices)	(Zip Code)	(Telephone Number, incl. area code)

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

Title of each Class	Name of each exchange on which registered
Common Stock, par value $.50	The Nasdaq Global Select Market

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.
Yes No

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

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

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

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

company: Emerging growth company:

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

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The aggregate market value of the common stock held by non-affiliates of the Registrant was approximately $846,000,000 based on the closing price of the common stock of $57.35 on June 30, 2018, as reported by The Nasdaq Global Select Market. As of February 19, 2019, the Registrant had 14,523,407 shares outstanding of common stock.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information required for Part III of this report is incorporated by reference to the Registrant's Proxy Statement for the 2019 Annual Meeting of Shareholders.

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Forward-looking Statements - Factors That May Affect Future Results

This report may contain or incorporate by reference forward-looking statements made pursuant to the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Although we believe that, in making any such statements, our expectations are based on reasonable assumptions, forward-looking statements are not guarantees of future

performance and involve risks, uncertainties, and other factors beyond our control, which may cause future performance to be materially different from expected performance summarized in the forward-looking statements. These risks, uncertainties and other factors are discussed in the section Part I, Item 1A, “Risk Factors.” We undertake no obligation to publicly update or revise any forward-looking statements to reflect changed assumptions, the occurrence of anticipated or unanticipated events, or changes to future results over time.

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PART I.

ITEM 1. BUSINESS

Description of Business

Cass Information Systems, Inc. (“Cass” or the “Company”) is a leading provider of payment and information processing services to large manufacturing, distribution and retail enterprises across the United States. The Company provides transportation invoice rating, payment processing, auditing, accounting and transportation information to many of the nation’s largest companies. It is also a processor and payer of energy invoices, including electricity, gas, waste, and other facility related expenses. Further, Cass competes in the telecommunications expense management market which includes bill processing, audit and payment services for telephone, data line, wireless and communication equipment expense. Cass also provides a B2B payment platform for clients that require an agile fintech partner. The Company, through its wholly owned bank subsidiary, Cass Commercial Bank (the “Bank”), also provides commercial banking services. The Bank’s primary focus is to support the Company’s payment operations and provide banking services to its target markets, which include privately-owned businesses and faith-based ministries. Services include commercial and commercial real estate loans, checking, savings and time deposit accounts and other cash management services.

Company Strategy and Core Competencies

Cass is an information services company with a primary focus on processing payables and payables-related transactions for large corporations located in the United States. Cass possesses four core competencies that encompass most of its processing services.

Data acquisition – This refers to the gathering of data elements from diverse, heterogeneous sources and the building of complete databases for our customers. Data is the raw material of the information economy. Cass gathers vital data from complex and diverse input documents, electronic media, proprietary databases and data feeds, including data acquired from vendor invoices as well as customer procurement and sales systems. Through its numerous methods of obtaining streams and pieces of raw data, Cass is able to assemble vital data into centralized data management systems and warehouses, thus producing an engine to create the power of information for managing critical corporate functions and processing systems.

Data management – Once data is assembled, Cass is able to utilize the power from derived information to produce significant savings and benefits for its clients. This information is integrated into customers’ unique financial and accounting systems, eliminating the need for internal accounting processing and providing internal and external support for these critical systems. Information is also used to produce management and exception reporting for operational control, feedback, planning assistance and performance measurement.

Business Intelligence – Receiving information in the right place at the right time and in the required format is paramount for business survival. Cass’ information delivery solutions provide reports, digital images, data files and retrieval capabilities through the internet or directly into customer internal systems. Cass’ proprietary internet management delivery system is the foundation for driving these critical functions. Transaction, operational, control, status and processing exception information are all delivered through this system creating an efficient, accessible and highly reliable asset for Cass customers.

Financial exchange – Since Cass is unique among its competition in that it owns a commercial bank, it is also able to manage the movement of funds from its customers to their suppliers. This is a distinguishing factor, which clearly requires the processing capability, operating systems and financial integrity of a banking organization. Cass provides immediate, accurate, controlled and protected funds management and transfer system capabilities for all of its customers. Old and costly check processing and delivery mechanisms are replaced with more efficient electronic cash management and funds transfer systems.

Cass’ core competencies allow it to perform the highest volumes of transaction processing in an integrated, efficient and systematic approach. Not only is Cass able to process the transaction, it is also able to collect the data defining the transaction and effect the financial payment governing its terms.

These core competencies, enhanced through shared business processes, drive Cass’ strategic business units. Building upon these foundations, Cass continues to explore new business opportunities that leverage these competencies and processes.

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Marketing, Customers and Competition

The Company, through its Transportation Information Services business unit, is one of the largest firms in the transportation bill processing and payment industry in the United States based on the total dollars of transportation bills paid and items processed. Competition consists of a few primary competitors and numerous small transportation bill audit firms located throughout the United States. While offering transportation payment services, few of these audit firms compete on a national basis. These competitors compete mainly on price, functionality and service levels. The Company, through its Expense Management business unit, also competes with other companies located throughout the United States that pay energy and waste bills and provide management reporting. Available data indicates that the Company is one of the largest providers of energy information processing and payment services. Cass is unique among these competitors in that it is not exclusively affiliated with any one energy service provider (“ESP”). Various ESPs market the Company’s services, adding value with their unique auditing, consulting and technological capabilities. Many of Cass’ services are customized for the ESPs, providing a full-featured solution without any development costs to the ESP. The Company, through its Telecom Information Services business unit, is a leader in the growing telecom expense management market and competes with other companies located throughout the United States in this market. The Company, through its Waste Expense Management business competes against small expense management companies along with large national account programs of major haulers. Also, the Company through its Integrated Payments business competes with providers of corporate payment solutions.

The Bank is organized as a Missouri trust company with banking powers and was founded in 1906. The Company was originally classified as a bank holding corporation due to its ownership of a federally-insured commercial bank and was originally organized in 1982 as Cass Commercial Corporation under the laws of Missouri. Approval by the Board of Governors of the Federal Reserve System was received in February 1983. The Company changed its name to Cass Information Systems, Inc. in January 2001. In December 2011, the Federal Reserve Bank (“FRB”) of St. Louis approved the election of Cass Information Systems, Inc. to become a financial holding company. As a financial holding company, Cass may engage in activities that are financial in nature or incidental to a financial activity. The Bank encounters competition from numerous banks and financial institutions located throughout the St. Louis, Missouri metropolitan area and other areas in which the Bank competes. The Bank’s principal competitors, however, are large bank holding companies that are able to offer a wide range of banking and related services through extensive branch networks. The Bank targets its services to privately held businesses located in the St. Louis, Missouri area and faith-based ministries located in St. Louis, Missouri, Orange County, California, Colorado Springs, Colorado, and other selected cities located throughout the United States.

The Company holds several trademarks for the payment and rating services it provides. These include: FreightPay®, Transdata®, Ratemaker®, Best Rate®, Rate Exchange®, CassPort®, Cass Freight Index®, Cass Truckload Linehaul Index®, Cass Intermodal Price Index® Expense$mart®, ExpenseSmart®, WasteVision™ and Direct2Carrier Payments™. The Company holds patents for methods and systems for managing employee-liable expenses and methods and systems for communicating expense management information. The Company and its subsidiaries are not dependent on any one customer for a significant portion of their businesses. The Company and its subsidiaries have a varied client base with no individual client exceeding 10% of total revenue.

Employees

The Company and its subsidiaries had 870 full-time and 273 part-time employees as of February 19, 2019. Of these employees, the Bank had 51 full-time and one part-time employees.

Supervision and Regulation

The Company and its bank subsidiary are extensively regulated under federal and state law. These laws and regulations are intended to primarily protect depositors, not shareholders. The Bank is subject to regulation and supervision by the Missouri Division of Finance, the FRB and the Federal Deposit Insurance Corporation (the “FDIC”). The Company is a financial holding company within the meaning of the Bank Holding Company Act of 1956, as amended (the “BHC Act”), and as such, it is subject to regulation, supervision and examination by the FRB. Significant elements of the laws and regulations applicable to the Company and the Bank are described below. The description is qualified in its entirety by reference to the full text of the statutes, regulations and policies that are described. Also, such statutes, regulations and policies are continually under review by Congress and state legislatures and federal and state regulatory agencies. A change in statutes, regulations or regulatory policies applicable to the Company and its subsidiaries could have a material effect on the business, financial condition and results of operations of the Company.

Bank Holding Company Activities – In general, the BHC Act limits the business of bank holding companies to banking, managing or controlling banks and other related activities. In addition, bank holding companies that qualify and elect to be financial holding companies, such as the Company, may engage in any activity, or acquire and retain the shares of a company engaged in any activity, that is either (i) financial in nature or incidental to such financial activity or (ii) complementary to a financial activity and does not pose a substantial risk to the safety and soundness of depository institutions or the financial system generally. Such permitted activities include securities underwriting and dealing, insurance underwriting and making merchant banking investments.

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To maintain financial holding company status, a financial holding company and all of its depository institution subsidiaries must be "well capitalized" and "well managed." A depository institution subsidiary is considered to be "well capitalized" if it satisfies the requirements for this status discussed in the section "Prompt Corrective Action" below. A depository institution subsidiary is considered "well managed" if it received a composite rating and management rating of at least "satisfactory" in its most recent examination. A financial holding company's status will also depend upon it maintaining its status as "well capitalized" and "well managed' under applicable FRB regulations. If a financial holding company ceases to meet these capital and management requirements, the FRB may impose limitations or conditions on the conduct of its activities during the non-compliance period, and the company may not commence any of the broader financial activities permissible for financial holding companies or acquire a company engaged in such financial activities without prior approval of the FRB. If the company does not return to compliance within 180 days, the FRB may require divestiture of the holding company's depository institutions.

In order for a financial holding company to commence any new activity permitted by the BHC Act or to acquire a company engaged in any new activity permitted by the BHC Act, each insured depository institution subsidiary of the financial holding company must have received a rating of at least "satisfactory" in its most recent examination under the Community Reinvestment Act. See "Community Reinvestment Act" below.

The FRB has the power to order any bank holding company or its subsidiaries to terminate any activity or to terminate its ownership or control of any subsidiary when the FRB has reasonable grounds to believe that continuation of such activity or such ownership or control constitutes a serious risk to the financial soundness, safety or stability of any bank subsidiary of the bank holding company.

The BHC Act, the Bank Merger Act, and other federal and state statutes regulate acquisitions of banks and banking companies. The BHC Act requires the prior approval of the FRB for the direct or indirect acquisition by the Company of more than 5% of the voting shares or substantially all of the assets of a bank or bank holding company. Under the Bank Merger Act, the prior approval of the FRB or other appropriate bank regulatory authority is required for the Bank to merge with another bank or purchase the assets or assume the deposits of another bank. In reviewing acquisition applications, the bank regulatory authorities will consider, among other things, the competitive effect and public benefits of the transactions, the capital position of the combined organization, the risks to the stability of the U.S. banking or financial system, the applicant's performance record under the Community Reinvestment Act and its compliance with fair housing laws.

The Dodd-Frank Act – The Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), enacted in July 2010, significantly restructured the financial regulatory environment in the United States, affecting all bank holding companies and banks, including the Company and the Bank, some of which are described in more detail below. The impact of the Dodd-Frank Act on the Company and the Bank has been substantial.

Dividends – Both the Company and the Bank are subject to various regulations that restrict their ability to pay dividends and the amount of dividends that they may pay. Under the Federal Deposit Insurance Corporation Improvement Act of 1991 ("FDICIA"), a depository institution, such as the Bank, may not pay dividends if payment would cause it to become undercapitalized or if it is already undercapitalized. The payment of dividends by the Company and the Bank may also be affected or limited by other factors, such as the requirement to maintain adequate capital and, under certain circumstances, the ability of federal regulators to prohibit dividend payments as an unsound or unsafe practice.

Capital Requirements – As a bank holding company, the Company and the Bank are subject to capital requirements pursuant to the FRB's capital guidelines which include (i) risk-based capital guidelines, which are designed to make capital requirements more sensitive to various risk profiles and account for off-balance sheet exposure; (ii) guidelines that consider market risk, which is the risk of loss due to change in value of assets and liabilities due to changes in interest rates; and (iii) guidelines that use a leverage ratio which places a constraint on the maximum degree of risk to which a financial holding company may leverage its equity capital base.

Effective July 2, 2013, the FRB approved final rules known as the "Basel III Capital Rules" that substantially revised the risk-based capital and leverage capital requirements applicable to bank holding companies and depository institutions, including the Company and the Bank. The Basel III Capital Rules implement aspects of the Basel III capital framework agreed upon by the Basel Committee and incorporate changes required by the Dodd-Frank Act. The Basel III Capital Rules came into effect for the Company and the Bank on January 1, 2015, subject to a phase-in period that ended on December 31, 2018.

The Basel III Capital Rules implemented common equity Tier 1 capital as a new capital measure, which is generally defined as common stockholders' equity and retained earnings. Tier 1 capital is generally defined as common equity Tier 1 and Additional Tier 1 capital. Additional Tier 1 capital generally includes certain noncumulative perpetual preferred stock and related surplus and minority interests in equity accounts of consolidated subsidiaries. Total capital includes Tier 1 capital (common equity Tier 1 capital plus Additional Tier 1 capital) and Tier 2 capital. Tier 2 capital is comprised of capital instruments and related surplus meeting specified requirements. Also included in Tier 2 capital is the allowance for loan losses limited to a maximum of 1.25% of risk-weighted assets and, for non-advanced approaches institutions like Cass that have exercised a one-time 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. The calculation of all types of regulatory

capital is subject to deductions and adjustments specified in the regulations.

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In determining the amount of risk-weighted assets for purposes of calculating risk-based capital ratios, all assets, including certain off-balance sheet assets are multiplied by a risk weight factor assigned by the regulations based on the risks believed inherent in the type of asset. Higher levels of capital are required for asset categories believed to present greater risk. For example, a risk weight of 0% is assigned to cash and U.S. government securities, a risk weight of 50% is generally assigned to prudently underwritten first lien one to four-family residential mortgages, a risk weight of 100% is assigned to commercial and consumer loans, a risk weight of 150% is assigned to certain past due loans, and a risk weight of between 0% to 600% is assigned to permissible equity interests, depending on certain specified factors.

Fully phased-in as of January 1, 2019, the Basel III Capital Rules require banking organizations, like Cass, to maintain:

- a minimum ratio of common equity Tier 1 capital to risk-weighted assets of at least 4.5%, plus a 2.5% capital conservation buffer;
- a minimum ratio of Tier 1 capital to risk-weighted assets of at least 6.0%, plus a 2.5% capital conservation buffer;
- a minimum ratio of total capital (that is, Tier 1 plus Tier 2 capital) to risk-weighted assets of at least 8.0%, plus the 2.5% capital conservation buffer; and
- a minimum leverage ratio of 4.0%, calculated as the ratio of Tier 1 capital to adjusted average consolidated assets.

The capital conservation buffer is designed to absorb losses during periods of economic stress. Banking institutions with a ratio of common equity Tier 1 capital to risk-weighted assets above the minimum but below the conservation buffer will face limitations on the payment of dividends, common stock repurchases and discretionary cash payments to executive officers based on the amount of the shortfall.

The FRB has authority to establish individual minimum capital requirements in appropriate cases upon a determination that an institution's capital level is or may become inadequate in light of the particular risks or circumstances. As of December 31, 2018, the Company and the Bank met all capital adequacy requirements under the Basel III Capital Rules.

In September 2017, the federal bank regulators proposed to revise and simplify the capital treatment for certain deferred tax assets, mortgage servicing assets, investments in non-consolidated financial entities and minority interests for banking organizations, such as Cass, that are not subject to the advanced approaches capital framework that applies to large, internationally active banking organizations with at least $250 billion in total consolidated assets or at least $10 billion in total on-balance sheet foreign exposure. In November 2017, the federal banking regulators revised the Basel III Capital Rules to extend the current transitional treatment of these items for non-advanced approaches banking organizations until the September 2017 proposal is finalized.

In December 2017, the Basel Committee published standards that it described as the finalization of the Basel III post-crisis regulatory reforms (commonly referred to as "Basel IV"). Among other things, these standards revise the Basel Committee's standardized approach for credit risk (including by recalibrating risk weights and introducing new capital requirements for certain "unconditionally cancellable commitments," such as unused credit card lines of credit) and provides a new standardized approach for operational risk capital. Under the Basel framework, these standards will generally be effective on January 1, 2022, with an aggregate output floor phasing in through January 1, 2027. Under the current U.S. capital rules, operational risk capital requirements and a capital floor apply only to advanced approaches institutions, and not to the Company or the Bank. The impact of Basel IV on the Company will depend on the manner in which it is implemented by the federal bank regulators.

Source of Strength Doctrine – FRB and other regulations require bank holding companies to act as a source of financial and managerial strength to their subsidiary banks. Under this requirement, the Company is expected to commit resources to support the Bank. Any capital loans by a bank holding company to any of its subsidiary banks are subordinate in right of payment to depositors and to certain other indebtedness of such subsidiary banks. In the event of a bank holding company's bankruptcy, any commitment by the bank holding company to a federal bank regulatory agency to maintain the capital of a subsidiary bank will be assumed by the bankruptcy trustee and entitled to priority of payment.

Deposit Insurance – Substantially all of the deposits of the Bank are insured up to applicable limits by the Deposit Insurance Fund ("DIF") of the FDIC, and the Bank is subject to deposit insurance assessments to maintain the DIF. Deposit insurance assessments are based on average consolidated total assets minus average tangible equity. Under the FDIC's risk-based assessment system, insured institutions with less than $10 billion in assets, such as the Bank, are assigned to one of four risk categories based on supervisory evaluations, regulatory capital level, and certain other factors, with less risky institutions paying lower assessments. An institution's assessment rate depends upon the category to which it is assigned and certain other factors.

In October 2010, the FDIC adopted a new DIF restoration plan to ensure that the DIF reserve ratio reaches 1.35% by September 30, 2020, as required by the Dodd-Frank Act. At least semi-annually, the FDIC will update its loss and income projections for the fund and, if needed, will increase or decrease assessment rates, following notice-and-comment rulemaking if required. FDIC insurance expense totaled approximately $222,200, $220,100 and $309,700 for the years ended December 31, 2018, 2017 and 2016, respectively.

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The FDIC may terminate deposit insurance upon a finding that the institution has engaged in unsafe and 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.

Prompt Corrective Action – The Basel III Capital Rules incorporate new requirements into the prompt correction action framework, described above. The Federal Deposit Insurance Act ("FDIA") requires that federal banking agencies take "prompt corrective action" against depository institutions that do not meet minimum capital requirements and includes the following five capital tiers: "well-capitalized," "adequately capitalized," "undercapitalized," "significantly undercapitalized" and "critically undercapitalized." A depository institution's capital tier will depend upon how its capital levels compare with various relevant capital measures and certain other factors, as established by regulation.

A depository institution is deemed to be (i) "well-capitalized" if the institution has a total risk-based capital ratio of 10% or greater, a Tier 1 risk-based capital ratio of 8% or greater, a leverage ratio of 5% or greater, a common equity Tier 1 ratio of 6.5% or greater and is not subject to any regulatory order agreement or written directive to meet and maintain a specific capital level for any capital measure; (ii) "adequately capitalized" if the institution has a total risk-based capital ratio of 8% or greater, a Tier 1 risk-based capital ratio of 6% or greater, a leverage ratio of 4% or greater, a common equity Tier 1 ratio of 4.5% or greater and does not meet the definition of "well capitalized"; (iii) "undercapitalized" if the institution has a total risk-based capital ratio that is less than 8%, a Tier 1 risk-based capital ratio of less than 6%, a leverage ratio of less than 4% or a common equity Tier 1 ratio of less than 4.5%; (iv) "significantly undercapitalized" if the institution has a total risk-based capital ratio of less than 6%, a Tier 1 risk-based capital ratio of less than 4%, a leverage ratio of less than 3% or a common equity Tier 1 ratio of less than 3%; and (v) "critically undercapitalized" if the institution has a ratio of tangible equity (as defined in the regulations) to total assets that is equal to or less than 2%. An institution may be deemed to be in a capital category that is lower than indicated by its capital ratios if it is determined to be in an unsafe or unsound condition or if it receives an unsatisfactory examination rating with respect to certain matters. A bank's capital category is determined solely for the purpose of applying prompt corrective action regulations, and the capital category may not constitute an accurate representation of the bank's overall financial condition or prospects for other purposes.

Subject to a narrow exception, a receiver or conservator is required to be appointed for an institution that is "critically undercapitalized" within specified time frames. The regulations also provide that a capital restoration plan must be filed with the FRB within 45 days of the date an institution is deemed to have received notice that it is "undercapitalized," "significantly undercapitalized" or "critically undercapitalized." Compliance with the plan must be guaranteed by any parent holding company up to the lesser of 5% of the institution's total assets when it was deemed to be undercapitalized or the amount necessary to achieve compliance with applicable capital requirements. In addition, numerous mandatory supervisory actions become immediately applicable to an undercapitalized institution including, but not limited to, increased monitoring by regulators and restrictions on growth, capital distributions and expansion. The FRB could also take any one of a number of discretionary supervisory actions, including the issuance of a capital directive and the replacement of senior executive officers and directors. Significantly and critically undercapitalized institutions are subject to additional mandatory and discretionary measures.

As of December 31, 2018, the most recent notification from the regulatory agencies categorized the Company and the Bank as well-capitalized. For further information regarding the capital ratios and leverage ratio of the Company and the Bank, see Item 8, Note 2 of this report.

Safety and Soundness Regulations – In accordance with the FDIA, the federal banking agencies adopted guidelines establishing general standards relating to internal controls, information systems, internal audit systems, loan documentation, credit underwriting, interest rate risk exposure, asset growth, asset quality, earnings, compensation, fees and benefits. In general, the guidelines require that institutions maintain appropriate systems and practices to identify and manage the risks and exposures specified in the guidelines. The guidelines prohibit excessive compensation as an unsafe and unsound practice and describe compensation as excessive when the amounts paid are unreasonable or disproportionate to the services performed by an executive officer, employee, director or principal shareholder. In addition, regulations adopted by the federal banking agencies authorize the agencies to require that an institution that has been given notice that it is not satisfying any of such safety and soundness standards to submit a compliance plan. If the institution fails to submit an acceptable compliance plan or fails in any material respect to implement an accepted compliance plan, the agency must issue an order directing corrective actions and may issue an order directing other actions of the types to which an undercapitalized institution is subject under the "prompt corrective action" provisions of FDIA. If the institution fails to comply with such an order, the agency may seek to enforce such order in judicial proceedings and to impose civil money penalties.

Loans-to-One-Borrower – The Bank generally may not make loans or extend credit to a single or related group of borrowers in excess of 15% of unimpaired capital and surplus. An additional amount may be loaned, up to 10% of unimpaired capital and surplus, if the loan is secured by readily marketable collateral, which generally does not include real estate. As of December 31, 2018, the Bank was in compliance with the loans-to-one-borrower limitations.

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

Community Reinvestment Act – The Community Reinvestment Act of 1977 ("CRA") requires depository institutions to assist in meeting the credit needs of their market areas consistent with safe and sound banking practice. Under the CRA, each depository institution is required to help meet the credit needs of its market areas by, among other things, providing credit to low- and moderate-income individuals and communities. Depository institutions are periodically examined for compliance with the CRA and are assigned ratings that must be publicly disclosed. In order for a financial holding company to commence any new activity permitted by the BHC Act, or to acquire any company engaged in any new activity permitted by the BHC Act, each insured depository institution subsidiary of the financial holding company must have received a rating of at least "satisfactory" in its most recent examination under the CRA. The Bank received a rating of "satisfactory" in its most recent CRA exam.

Financial Privacy – Banks and other financial institutions are subject to regulations that limit their ability to disclose non-public information about consumers to nonaffiliated third parties. These limitations require disclosure of privacy policies to consumers and affect how consumer information is transmitted through diversified financial companies and conveyed to outside vendors.

The Bank is also subject to regulatory guidelines establishing standards for safeguarding customer information and maintaining information security programs. The standards set forth in the guidelines are intended to ensure the security and confidentiality of customer records and information, protect against any anticipated threats or hazards to the security or integrity of such records and protect against unauthorized access to or use of such records or information that could result in substantial harm or inconvenience to any customer.

Transactions with Affiliates – Transactions between the Bank and its affiliates are subject to regulations that limit the types and amounts of covered transactions engaged in by the Bank and generally require those transactions to be on an arm's-length basis. The term "affiliate" is defined to mean any company that controls or is under common control with the Bank and includes the Company and its non-bank subsidiaries. "Covered transactions" include a loan or extension of credit, as well as a purchase of securities issued by an affiliate, certain purchases of assets from the affiliate, certain derivative transactions that create a credit exposure to an affiliate, the acceptance of securities issued by the affiliate as collateral for a loan, and the issuance of a guarantee, acceptance or letter of credit on behalf of an affiliate. In general, these regulations require that any such transaction by the Bank (or its subsidiaries) with an affiliate must be secured by designated amounts of specified collateral and must be limited to certain thresholds on an individual and aggregate basis.

Federal law also limits the Bank's authority to extend credit to its directors, executive officers and 10% shareholders, as well as to entities controlled by such persons. Among other things, extensions of credit to insiders are required to 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. Also, the terms of such extensions of credit 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, which limits are based, in part, on the amount of the Bank's capital.

Federal Reserve System – FRB regulations require depository institutions to maintain cash reserves against their transaction accounts (primarily negotiable order of withdrawal and demand deposit accounts). A reserve of 3% is to be maintained against aggregate transaction accounts between $15.2 million and $110.2 million (subject to adjustment by the FRB) plus a reserve of 10% (subject to adjustment by the FRB between 8% and 14%) against that portion of total transaction accounts in excess of $110.2 million. The first $15.2 million of otherwise reservable balances (subject to adjustment by the FRB) is exempt from the reserve requirements. The Bank is in compliance with the foregoing requirements.

Cybersecurity – In March 2015, federal regulators issued two related statements regarding cybersecurity. One statement indicates that financial institutions should design multiple layers of security controls to establish lines of defense and to ensure that their risk management processes address the risk posed by compromised customer credentials, including security measures to reliably authenticate customers accessing internet-based services of the financial institution. The other statement indicates that a financial institution's management is expected to maintain sufficient business continuity planning processes to ensure the rapid recovery, resumption and maintenance of the institution's operations after a cyber-attack involving destructive malware. A financial institution is expected to develop appropriate processes to enable recovery of data and business operations and address rebuilding network capabilities and restoring data if the institution or its critical service providers fall victim to this type of cyber-attack. If the Company fails to observe the regulatory guidance, it could be subject to various regulatory sanctions, including financial penalties.

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In the ordinary course of business, the Company relies on electronic communications and information systems to conduct operations and store sensitive data. The Company employs an in-depth, layered, defensive approach that leverages people, processes and technology to manage and maintain cybersecurity controls. The Company also employs a variety of preventative and detective tools to identify, protect, detect, respond, and recover against suspicious activity, as well as to report on any suspected advanced persistent threats. Notwithstanding the strength of the Company's defensive measures, the threat from cyber attacks is severe, attacks are sophisticated and increasing in volume, and attackers respond rapidly to changes in defensive measures. While the Company has not experienced a significant compromise to date, significant data loss or any material financial losses related to cybersecurity attacks, the Company's systems and those of its customers and third-party service providers are under constant threat and it is possible that the Company could experience a significant event in the future. Risks and exposures related to cybersecurity attacks are expected to remain high for the foreseeable future due to the rapidly evolving nature and sophistication of these threats, as well as due to the expanding use of internet banking, mobile banking and other technology-based products and services by the Company and its customers. See Item 1A, "Risk Factors" for a further discussion of risks related to cybersecurity.

Other Regulations – The operations of the Company and the Bank are also subject to:

- Truth-In-Lending Act, governing disclosures of credit terms to consumer borrowers;
- Fair Credit Reporting Act, governing the provision of consumer information to credit reporting agencies and the use of consumer information;
- Fair Debt Collection Act, governing the manner in which consumer debts may be collected by collection agencies;
- Electronic Funds Transfer Act, governing automatic deposits to and withdrawals from deposit accounts and customers' rights and liabilities arising from the use of automated teller machines and other electronic banking services.
- Real Estate Settlement Procedures Act, requiring that borrowers for mortgage loans for one- to four-family residential real estate receive various disclosures, including good faith estimates of settlement costs, lender servicing and escrow account practices, and prohibiting certain practices that increase the cost of settlement services;
- Equal Credit Opportunity Act, prohibiting discrimination on the basis of race, creed or other prohibited factors in extending credit;
- Check Clearing for the 21st Century Act (also known as "Check 21"), which gives "substitute checks," such as digital check images and copies made from that image, the same legal standing as the original paper check;
- The USA PATRIOT Act, which requires banks and savings institutions to establish broadened anti-money laundering compliance programs and due diligence policies and controls to ensure the detection and reporting of money laundering; and
- The Bank Secrecy Act, which requires U.S. financial institutions to collaborate with the U.S. government in cases of suspected money laundering and fraud.

Certain of these laws are consumer protection laws that extensively govern the Company's relationship with its customers. Violations of applicable consumer protection laws can result in significant potential liability from litigation brought by customers, including actual damages, restitution and attorneys' fees. Federal bank regulators, state attorneys general and state and local consumer protection agencies may also seek to enforce consumer protection requirements and obtain these and other remedies, including regulatory sanctions, customer rescission rights, action by the state and local attorneys general in each jurisdiction in which the Company operates and civil money penalties. Failure to comply with consumer protection requirements may also result in the Company's inability to pursue merger or acquisition transactions.

Website Availability of SEC Reports

Cass files annual, quarterly and current reports with the Securities and Exchange Commission (the "SEC"). Cass will, as soon as reasonably practicable after they are electronically filed with or furnished to the SEC, make available free of charge on its website each of its Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, all amendments to those reports, and its definitive proxy statements. The address of Cass' website is: www.cassinfo.com.

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The reference to the Company's website address does not constitute incorporation by reference of the information contained on the website and should not be considered part of this report.

Statistical Disclosure by Bank Holding Companies

For the statistical disclosure by bank holding companies, refer to Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

ITEM 1A. RISK FACTORS

This section highlights specific risks that could affect the Company's business. Although this section attempts to highlight key factors, please be aware that other risks may prove to be important in the future. New risks may emerge at any time, and Cass cannot predict such risks or estimate the extent to which they may affect the Company's financial performance. In addition to the factors discussed elsewhere or incorporated by reference in this report, the identified risks that could cause actual results to differ materially include the following:

General political, economic or industry conditions may be less favorable than expected.

Local, domestic, and international economic, political and industry-specific conditions and governmental monetary and fiscal policies affect the industries in which the Company competes, directly and indirectly. Conditions such as inflation, recession, unemployment, volatile interest rates, tight money supply, real estate values, international conflicts and other factors outside of Cass' control may adversely affect the Company. Economic downturns could result in the delinquency of outstanding loans, which could have a material adverse impact on Cass' earnings.

Unfavorable developments concerning customer credit quality could affect Cass' financial results.

Although the Company regularly reviews credit exposure related to its customers and various industry sectors in which it has business relationships, default risk may arise from events or circumstances that are difficult to detect or foresee. Under such circumstances, the Company could experience an increase in the level of provision for credit losses, delinquencies, nonperforming assets, net charge-offs and allowance for credit losses.

The Company has lending concentrations, including, but not limited to, faith-based ministries located in selected cities and privately-held businesses located in or near St. Louis, Missouri, that could suffer a significant decline which could adversely affect the Company.

Cass' customer base consists, in part, of lending concentrations in several segments and geographical areas. If any of these segments or areas is significantly affected by weak economic conditions, the Company could experience increased credit losses, and its business could be adversely affected.

Fluctuations in interest rates could affect Cass' net interest income and balance sheet.

The operations of financial institutions such as the Company are dependent to a large degree on net interest income, which is the difference between interest income from loans and investments and interest expense on deposits and borrowings. Prevailing economic conditions, the fiscal and monetary policies of the federal government and the policies of various regulatory agencies all affect market rates of interest, which in turn significantly affect financial institutions' net interest income. Fluctuations in interest rates affect Cass' financial statements, as they do for all financial institutions. Volatility in interest rates can also result in disintermediation, which is the flow of funds away from financial institutions into direct investments, such as federal government and corporate securities and other investment vehicles, which, because of the absence of federal insurance premiums and reserve requirements, generally pay higher rates of return than financial institutions. As discussed in greater detail in Item 7A, "Quantitative and Qualitative Disclosures about Market Risk," a low level of interest rates would have a negative impact on the Company's net interest income.

Operational difficulties or cyber-security problems could damage Cass' reputation and business.

In the ordinary course of business, the Company depends on the reliable operation of its computer operations and network connections from its clients to its systems. Any failure, interruption, or breach in security of these systems would cause Cass to be unable to process transactions for its clients, resulting in decreased revenues. Additionally, any failure, interruption, breach in security or loss of data, whatever the cause, could reduce client satisfaction with the Company's products and services and harm Cass' financial results. These types of threats may derive from human error, fraud or malice on the part of external or internal parties, or may result from accidental technological failure. Further, to access the Company's products and services, Cass' customers may use computers and mobile devices that are beyond the Company's security control systems. The Company's technologies, systems, networks and software, and those of other financial institutions have been, and are likely to continue to be, the target of cybersecurity threats and attacks, which may range from uncoordinated individual attempts to sophisticated and

targeted measures directed at Cass. The risk of a security breach or disruption, particularly through cyber-attack or cyber intrusion, has increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. A material security problem affecting Cass could damage its reputation, deter prospects from purchasing its products and services, deter customers from using its products and services or result in liability to Cass.

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Although the Company makes significant efforts to maintain the security and integrity of Cass' information systems and have implemented various measures to manage the risk of a security breach or disruption, there can be no assurance that Cass' security efforts and measures will be effective or that attempted security breaches or disruptions would not be successful or damaging. Even the most well protected information, networks, systems and facilities remain potentially vulnerable because attempted security breaches, particularly cyber-attacks and intrusions, or disruptions will occur in the future, and because the techniques used in such attempts are constantly evolving and generally are not recognized until launched against a target, and in some cases are designed not to be detected and, in fact, may not be detected. Accordingly, the Company may be unable to anticipate these techniques or to implement adequate security barriers or other preventative measures, and thus it is virtually impossible to entirely mitigate this risk. While specific "cyber" insurance coverage is maintained, which would apply in the event of various breach scenarios, the amount of coverage may not be adequate in any particular case. Furthermore, because cyber threat scenarios are inherently difficult to predict and can take many forms, some breaches may not be covered under Cass' cyber insurance coverage. A security breach or other significant disruption of Cass' information systems or those related to customers, merchants and third party vendors, including as a result of cyber-attacks, could 1) disrupt the proper functioning of Cass' networks and systems and therefore operations and/or those of certain customers; 2) result in the unauthorized access to, and destruction, loss, theft, misappropriation or release of confidential, sensitive or otherwise valuable information of the Company or its customers; 3) result in a violation of applicable privacy, data breach and other laws, subjecting the Company to additional regulatory scrutiny and expose Cass to civil litigation, governmental fines and possible financial liability; 4) require significant management attention and resources to remedy the damages that result; or 5) harm Cass' reputation or cause a decrease in the number of customers that choose to do business with the Company. The occurrence of any of the foregoing could have a material adverse effect on Cass' business, financial condition and results of operations.

Cass must respond to rapid technological changes and these changes may be more difficult or expensive than anticipated.

If competitors introduce new products and services embodying new technologies, or if new industry standards and practices emerge, the Company's existing product and service offerings, technology and systems may become obsolete. Further, if Cass fails to adopt or develop new technologies or to adapt its products and services to emerging industry standards, Cass may lose current and future customers. Finally, Cass' ability to adopt these technologies can also be inhibited by intellectual property rights of third parties. Any of these could have a material adverse effect on its business, financial condition and results of operations. The payment processing and financial services industries are changing rapidly and in order to remain competitive, Cass must continue to enhance and improve the functionality and features of its products, services and technologies. These changes may be more difficult or expensive than the Company anticipates.

Operations of the Company's customer base are impacted by macro-economic factors such as a strong dollar and/or volatility in commodity prices. A reduction in its customers' operations could have a material adverse effect on Cass' results of operations.

A decline in the cost of oil worldwide can have a negative effect on both the number of freight transactions processed and the dollar amount of invoices processed. For example, lower oil prices can cause a significant drop in drilling supplies being transported to fracking operations by domestic railroads and trucks. Lower oil prices can also result in lower gas and fuel prices, negatively affecting the dollar amounts of the invoices that Cass processes for its freight and shipping customers. A decline in oil prices could have an adverse effect on the Company's revenues and could significantly impact its results of operations.

Methods of reducing risk exposures might not be effective.

Instruments, systems and strategies used to hedge or otherwise manage exposure to various types of credit, interest rate, market and liquidity, operational, regulatory/compliance, business risks and enterprise-wide risks could be less effective than anticipated. As a result, the Company may not be able to effectively mitigate its risk exposures in particular market environments or against particular types of risk.

Customer borrowing, repayment, investment, deposit, and payable processing practices may be different than anticipated.

The Company uses a variety of financial tools, models and other methods to anticipate customer behavior as part of its strategic and financial planning and to meet certain regulatory requirements. Individual, economic, political and industry-specific conditions and other factors outside of Cass' control could alter predicted customer borrowing, repayment, investment, deposit, and payable processing practices. Such a change in these practices could adversely affect Cass' ability to anticipate business needs, including cash flow and its impact on liquidity, and to meet regulatory requirements.

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Cass' stock price can become volatile and fluctuate widely in response to a variety of factors.

The Company's stock price can fluctuate based on factors that can include actual or anticipated variations in Cass' quarterly results; new technology or services by competitors; unanticipated losses or gains due to unexpected events, including losses or gains on securities held for investment purposes; significant acquisitions or business combinations, strategic partnerships, joint ventures or capital commitments by or involving the Company or its competitors; changes in accounting policies or practices; failure to integrate acquisitions or realize anticipated benefits from acquisitions; or changes in government regulations.

General market fluctuations, industry factors and general economic and political conditions, such as economic slowdowns or recessions, governmental intervention, interest rate changes, credit loss trends, low trading volume or currency fluctuations also could cause Cass' stock price to decrease regardless of the Company's operating results.

Competitive product and pricing pressure within Cass' markets may change.

The Company operates in a very competitive environment, which is characterized by competition from a number of other vendors and financial institutions in each market in which it operates. The Company competes with large payment processors and national and regional financial institutions and also smaller auditing companies and banks in terms of products and pricing. If the Company is unable to compete effectively in products and pricing in its markets, business could decline.

Management's ability to maintain and expand customer relationships may differ from expectations.

The industries in which the Company operates are very competitive. The Company not only competes for business opportunities with new customers, but also competes to maintain and expand the relationships it has with its existing customers. The Company continues to experience pressures to maintain these relationships as its competitors attempt to capture its customers.

The introduction, withdrawal, success and timing of business initiatives and strategies, including, but not limited to, the expansion of payment and processing activities to new markets, the expansion of products and services to existing markets and opening of new bank branches, may be less successful or may be different than anticipated. Such a result could adversely affect Cass' business.

The Company makes certain projections as a basis for developing plans and strategies for its payment processing and banking products. If the Company does not accurately determine demand for its products and services, it could result in the Company incurring significant expenses without the anticipated increases in revenue, which could result in an adverse effect on its earnings.

Management's ability to retain key officers and employees may change.

Cass' future operating results depend substantially upon the continued service of Cass' executive officers and key personnel. Cass' future operating results also depend in significant part upon Cass' ability to attract and retain qualified management, financial, technical, marketing, sales, and support personnel. Competition for qualified personnel is intense, and the Company cannot ensure success in attracting or retaining qualified personnel. There may be only a limited number of persons with the requisite skills to serve in these positions, and it may be increasingly difficult for the Company to hire personnel over time. Cass' business, financial condition and results of operations could be materially adversely affected by the loss of any of its key employees, by the failure of any key employee to perform in his or her current position, or by Cass' inability to attract and retain skilled employees.

The Company and the Bank are subject to extensive government regulation and supervision and possible enforcement or other legal actions that could detrimentally affect Cass' business.

The Company and the Bank are subject to extensive federal and state regulation and supervision, the primary focus of which is to protect customers, depositors, the deposit insurance fund and the safety and soundness of the banking system as a whole, and not shareholders. In addition, since the global financial crisis, financial institutions generally have been subject to increased scrutiny from regulatory authorities, with an increased focus on risk management and consumer compliance. This regulatory structure and heightened focus gives the regulatory authorities extensive discretion in connection with their supervisory and enforcement activities and examination policies, including policies with respect to capital levels, the timing and amount of dividend payments, the classification of assets and the establishment of adequate loan loss reserves for regulatory purposes. Failure to comply with applicable laws, regulations, policies or guidance could result in enforcement and other legal actions by federal and state authorities, including criminal and civil penalties, the loss of FDIC insurance, revocation of a banking charter, and other regulatory sanctions, as well as reputational damage, any of which could have a material adverse effect on the Company's business, financial condition and results of operations.

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Congress and federal regulatory agencies continually review banking laws, regulations and policies for possible changes. The substance and impact of pending or future legislation or regulation, or the application thereof, cannot be predicted, although any change could impact the regulatory structure under which the Company or its competitors operate and may significantly increase costs, impede the efficiency of internal business processes, require an increase in regulatory capital, require modifications to the Company's business strategy, and/or limit its ability to pursue business opportunities in an efficient manner. A change in statutes, regulations or regulatory policies applicable to the Company or any of its subsidiaries could have a material, adverse effect on the Company's business, financial condition and results of operations.

See Item 1, "Business—Supervision and Regulation," and Item 8, Note 2 to the consolidated financial statements included elsewhere in this report for additional information.

The Company may be forced to raise capital or sell assets if it fails to meet regulatory capital requirements.

The Dodd-Frank Act required the federal banking agencies to establish stricter risk-based capital requirements and leverage limits to apply to banks and bank and savings and loan holding companies. In July 2013, the federal banking agencies published the final Basel III Capital Rules that revised their risk-based and leverage capital requirements and their method for calculating risk-weighted assets. The Basel III Capital Rules apply to banking organizations, including the Company and the Bank, and are fully phased in as of January 1, 2019.

Among other things, the rules require that the Company maintain a common equity Tier 1 capital ratio of 4.5%, a Tier 1 capital ratio of 6%, a total capital ratio of 8%, and a leverage ratio of 4%. As of January 1, 2019, the Company must maintain a capital conservation buffer of 2.5% on top of the common equity Tier 1, Tier 1 and total capital requirements, effectively resulting in a required common equity Tier 1 capital ratio of 7%, a Tier 1 capital ratio of 8.5%, and a total capital ratio of 10.5%. Failure to satisfy any of these capital requirements will result in limits on paying dividends, engaging in share repurchases and paying discretionary bonuses. These limitations establish a maximum percentage of eligible retained income that could be utilized for such actions.

In addition to the higher required capital ratios and the deductions and adjustments relevant to the capital calculations, the Basel III Capital rules increase the risk weights for certain assets, meaning that the Company is required to hold more capital against these assets. Complying with these more stringent capital requirements could result in management modifying its business strategy and could limit the Company's ability to make distributions, including paying dividends, or buying back shares.

Legal and regulatory proceedings and related matters with respect to the financial services industry, including those directly involving the Company and its subsidiaries, could adversely affect Cass or the financial services industry in general.

The Company is subject to various legal and regulatory proceedings. It is inherently difficult to assess the outcome of these matters, and there can be no assurance that the Company will prevail in any proceeding or litigation. Any such matter could result in substantial cost and diversion of Cass' efforts, which by itself could have a material adverse effect on Cass' financial condition and operating results. Further, adverse determinations in such matters could result in actions by Cass' regulators that could materially adversely affect Cass' business, financial condition or results of operations. Please refer to Item 3, "Legal Proceedings."

The Company's accounting policies and methods are the basis of how Cass reports its financial condition and results of operations, and they require management to make estimates about matters that are inherently uncertain. In addition, changes in accounting policies and practices, as may be adopted by the regulatory agencies, the Financial Accounting Standards Board, or other authoritative bodies, could materially impact Cass' financial statements.

The Company's accounting policies and methods are fundamental to how Cass records and reports its financial condition and results of operations. Management must exercise judgment in selecting and applying many of these accounting policies and methods in order to ensure that they comply with generally accepted accounting principles and reflect management's judgment as to the most appropriate manner in which to record and report Cass' financial condition and results of operations. In some cases, management must select the accounting policy or method to apply from two or more alternatives, any of which might be reasonable under the circumstances yet might result in the Company reporting materially different amounts than would have been reported under a different alternative.

Cass has identified one accounting policy as being "critical" to the presentation of its financial condition and results of operations because they require management to make particularly subjective and/or complex judgments about matters that are inherently uncertain and because of the likelihood that materially different amounts would be reported under different conditions or using different assumptions. More information on Cass' critical accounting policies is contained in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

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From time to time, the regulatory agencies, the Financial Accounting Standards Board ("FASB"), and other authoritative bodies change the financial accounting and reporting standards that govern the preparation of the Company's financial statements. These changes can be hard to predict and can materially impact how management records and reports the Company's financial condition and results of operations.

Cass is subject to examinations and challenges by tax authorities, which, if not resolved in the Company's favor, could adversely affect the Company's financial condition and results of operations.

In the normal course of business, Cass and its affiliates are routinely subject to examinations and challenges from federal and state tax authorities regarding the amount of taxes due in connection with investments it has made and the businesses in which it is engaged. Recently, federal and state taxing authorities have become increasingly aggressive in challenging tax positions taken by financial institutions. These tax positions may relate to tax compliance, sales and use, franchise, gross receipts, payroll, property and income tax issues, including tax base, apportionment and tax credit planning. The challenges made by tax authorities may result in adjustments to the timing or amount of taxable income or deductions or the allocation of income among tax jurisdictions. If any such challenges are made and are not resolved in the Company's favor, they could have an adverse effect on Cass' financial condition and results of operations.

Certain events beyond the Company's control, such as severe weather, natural disasters, terrorist activities or other hostilities, may adversely affect the general economy, financial and capital markets, specific industries, and the Company.

Severe weather, natural disasters, acts of terrorism or other hostilities, and other adverse external events beyond the Company's control, could have a significant impact on the Company's ability to conduct business. Such events could disrupt Cass' operations or those of its customers, affect the stability of the Bank's deposit base, impair the ability of borrowers to repay outstanding loans, impair the value of collateral securing loans, cause significant property damage, result in loss of revenue and/or cause the Company to incur additional expenses. The occurrence of any such event in the future could have a material adverse effect on the Company's business, which, in turn, could have a material adverse effect on the Company's financial condition and results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

In September 2012, the Company entered into a 10-year lease for office space in St. Louis County, Missouri, to house the headquarters of the Company and the Bank. The Company's headquarters occupy 13,991 square feet in an office center at 12444 Powerscourt Drive along with 3,563 square feet in the same center at 12412 Powerscourt Drive. The Bank's headquarters occupy 10,564 square feet in the same center at 12412 Powerscourt Drive.

The Company owns approximately 61,500 square feet of office space at 13001 Hollenberg Drive in Bridgeton, Missouri where the Company's transportation processing activities are performed.

The Company owns a production facility of approximately 45,500 square feet located at 2675 Corporate Exchange Drive, Columbus, Ohio. Additional facilities are located in Lowell, Massachusetts, Greenville, South Carolina, Wellington, Kansas, Jacksonville, Florida and Columbus, Ohio. The Company has offices in Breda, Netherlands, Basingstoke, United Kingdom, and Singapore to service its multinational customers.

In addition, the Bank owns a banking facility near downtown St. Louis, Missouri, has an operating branch in the Bridgeton, Missouri location, and has additional leased facilities in Fenton, Missouri, Santa Ana, California and Colorado Springs, Colorado.

Management believes that these facilities are suitable and adequate for the Company's operations.

ITEM 3. LEGAL PROCEEDINGS

The Company and its subsidiaries are not involved in any pending proceedings other than ordinary routine litigation incidental to their businesses. Management believes none of these proceedings, if determined adversely, would have a material effect on the business or financial conditions of the Company or its subsidiaries.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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PART II

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

The Company's common stock is quoted on The Nasdaq Global Select Market® under the symbol "CASS." As of February 19, 2019, there were approximately 4,555 holders of record of the Company's common stock.

The Company maintains a treasury stock buyback program pursuant to which the Board of Directors has authorized the repurchase of up to 500,000 shares of the Company's common stock. As restored by the Board of Directors in January 2019, the program provides that the Company may repurchase up to an aggregate of 500,000 shares of common stock and has no expiration date. Adjusted for the stock dividend that was paid on December 14, 2018, the Company repurchased a total of 169,143 shares at an aggregate cost of $8,838,000 during the year ended December 31, 2018 and 50,215 shares at an aggregate cost of $2,270,000 during the year ended December 31, 2017. Shares repurchased have been restated to give effect to the 20% stock dividend that was paid on December 14, 2018. A portion of the repurchased shares may be used for the Company's employee benefit plans, and the balance will be available for other general corporate purposes. The pace of repurchase activity will depend on factors such as levels of cash generation from operations, cash requirements for investments, repayment of debt, current stock price, and other factors. The Company may repurchase shares from time to time on the open market or in private transactions, including structured transactions. The stock repurchase program may be modified or discontinued at any time.

During the three months ended December 31, 2018, the Company repurchased a total of 150,487 shares of its common stock pursuant to its treasury stock buyback program, as follows:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs[1]	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
October 1, 2018 – October 31, 2018[2]	7,200	$ 54.10	7,200	492,800
November 1, 2018 – November 30, 2018[2]	7,200	$ 54.05	7,200	485,600
December 1, 2018 – December 31, 2018	136,087	$ 52.73	136,087	349,513
Total	150,487	$ 52.86	150,487	349,513

(1) All repurchases made during the quarter ended December 31, 2018 were made pursuant to the treasury stock buyback program, which was authorized by the Board of Directors on October 17, 2011 and announced by the Company on October 20, 2011. The program, as modified by the Board of Directors on October 20, 2014, provides that the Company may repurchase up to an aggregate of 500,000 shares of common stock and has no expiration date. The program is periodically modified by the Board of Directors and was most recently modified on October 23, 2018 and again on January 30, 2019, in each case to restore the aggregate number of shares available for repurchase to 500,000.

(2) Shares and average share price have been restated for the 20% stock dividend that was paid by the Company on December 14, 2018.

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Performance Quoted on The Nasdaq Stock Market for the Last Five Fiscal Years

The following graph compares the cumulative total returns over the last five fiscal years of a hypothetical investment of $100 in shares of common stock of the Company with a hypothetical investment of $100 in The Nasdaq Stock Market ("Nasdaq") and in the index of Nasdaq computer and data processing stocks. The graph assumes $100 was invested on December 31, 2013, with dividends reinvested. Returns are based on period end prices.

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ITEM 6. SELECTED FINANCIAL DATA

The following table presents selected financial information for each of the five years ended December 31. The selected financial data should be read in conjunction with the Company's consolidated financial statements and accompanying notes included in Item 8 of this report.

(Dollars in thousands except per share data)	2018	2017	2016	2015	2014
Fee revenue and other income	$ 104,076	$ 95,512	$ 86,136	$ 83,368	$ 79,907
Interest income on loans	32,477	28,641	29,063	28,669	29,726
Interest income on debt and equity securities	11,167	10,993	9,801	9,498	9,441
Other interest income	4,282	2,343	1,066	543	592
Total interest income	47,926	41,977	39,930	38,710	39,759
Interest expense on deposits	3,736	2,187	2,029	2,111	2,460
Provision for loan losses	—	—	(1,500)	(850)	—
Net interest income after provision	44,190	39,790	39,401	37,449	37,299
Operating expense	111,919	100,403	93,473	89,783	85,414
Income before income tax expense	36,347	34,899	32,064	31,034	31,792
Income tax expense	6,079	9,885 (1)	7,716	7,978	7,759
Net income	$ 30,268	$ 25,014	$ 24,348	$ 23,056	$ 24,033
Diluted earnings per share (2)	$ 2.03	$ 1.68	$ 1.63	$ 1.52	$ 1.56
Dividends per share (2)	.89	.72	.68	.65	.61
Dividend payout ratio	43.53%	42.68%	40.98%	42.06%	38.85%
Average total assets	$ 1,637,876	$ 1,568,112	$ 1,504,474	$ 1,439,511	$ 1,424,967
Average net loans	700,631	653,459	667,158	659,109	651,984
Average investment securities	448,890	426,657	352,129	330,095	321,836
Average total deposits	624,877	602,490	614,975	579,752	571,039
Average total shareholders' equity	223,372	216,548	207,060	197,853	200,149
Return on average total assets	1.85%	1.60%	1.62%	1.60%	1.69%
Return on average equity	13.55	11.55	11.76	11.65	12.01
Average equity to assets ratio	13.64	13.81	13.76	13.74	14.05
Equity to assets ratio at year-end	13.56	14.04	13.82	14.25	13.36
Tangible common equity to tangible assets	12.83	13.25	13.04	13.42	12.52
Tangible common equity to risk-weighted assets	18.85	20.23	20.13	21.19	19.65
Net interest margin	3.32	3.34	3.32	3.38	3.43
Allowance for loan losses to loans at year-end	1.42	1.49	1.53	1.77	1.78
Nonperforming assets to loans and foreclosed assets	—	—	.04	.48 (3)	.07
Net loan (recoveries) charge-offs to average loans outstanding	—	—	(.01)	(.09)	(.03)

(1) Includes one-time, non-cash Tax Cuts and Jobs Act ("TCJA") charge of $1,824,000.
(2) Diluted earnings per share and dividends per share were adjusted for the 20% stock dividend that was paid on December 14, 2018.
(3) In February 2016, one nonaccrual loan with a balance of $2,727,000 was paid in full. The percentage, as adjusted, would have been .06%

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

The following discussion and analysis provides information about the financial condition and results of operations of the Company for the years ended December 31, 2018, 2017 and 2016. All share and per share data have been restated to give effect to the 20% stock dividend that was paid on December 14, 2018. This discussion and analysis should be read in conjunction with the Company's consolidated financial statements and accompanying notes and other selected financial data presented elsewhere in this report.

Executive Overview

Cass provides payment and information processing services to large manufacturing, distribution and retail enterprises from its offices/locations in St. Louis, Missouri, Columbus, Ohio, Boston, Massachusetts, Greenville, South Carolina, Wellington, Kansas, Jacksonville, Florida, Breda, Netherlands, Basingstoke, United Kingdom, and Singapore. The Company's services include freight invoice rating, payment processing, auditing, and the generation of accounting and transportation information. Cass also processes and pays energy invoices, which include electricity and gas as well as waste and telecommunications expenses, and is a provider of telecom expense management solutions. Additionally, Cass provides a B2B payment platform for clients that require an agile fintech partner. The Company also, through Cass Commercial Bank, its

St. Louis, Missouri-based bank subsidiary, provides banking services in the St. Louis metropolitan area, Orange County, California, Colorado Springs, Colorado, and other selected cities in the United States. In addition to supporting the Company's payment operations, the Bank provides banking services to its target markets, which include privately-owned businesses and faith-based ministries.

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The specific payment and information processing services provided to each customer are developed individually to meet each customer's requirements, which can vary greatly. In addition, the degree of automation such as electronic data interchange, imaging, work flow, and web-based solutions varies greatly among customers and industries. These factors combine so that pricing varies greatly among the customer base. In general, however, Cass is compensated for its processing services through service fees and investment of account balances generated during the payment process. The amount, type, and calculation of service fees vary greatly by service offering, but generally follow the volume of transactions processed. Interest income from the balances generated during the payment processing cycle is affected by the amount of time Cass holds the funds prior to payment and the dollar volume processed. Both the number of transactions processed and the dollar volume processed are therefore key metrics followed by management. Other factors will also influence revenue and profitability, such as changes in the general level of interest rates, which have a significant effect on net interest income. The funds generated by these processing activities are invested in overnight investments, investment grade securities, and loans generated by the Bank. The Bank earns most of its revenue from net interest income, or the difference between the interest earned on its loans and investments and the interest paid on its deposits and other borrowings. The Bank also assesses fees on other services such as cash management services.

Industry-wide factors that impact the Company include the willingness of large corporations to outsource key business functions such as freight, energy, telecommunication and environmental payment and audit. The benefits that can be achieved by outsourcing transaction processing, and the management information generated by Cass' systems can be influenced by factors such as the competitive pressures within industries to improve profitability, the general level of transportation costs, deregulation of energy costs, and consolidation of telecommunication providers. Economic factors that impact the Company include the general level of economic activity that can affect the volume and size of invoices processed, the ability to hire and retain qualified staff, and the growth and quality of the loan portfolio. The general level of interest rates also has a significant effect on the revenue of the Company. As discussed in greater detail in Item 7A, "Quantitative and Qualitative Disclosures about Market Risk," a decline in the general level of interest rates can have a negative impact on net interest income and conversely, a rise in the general level of interest rates can have a positive impact on net interest income. The cost of fuel is another factor that has a significant impact on the transportation sector. As the price of fuel goes up or down, the Company's earnings increase or decrease with the dollar amount of transportation invoices. Another negative impact of low fuel prices could be a drop in the number of invoices related to drilling supplies carried by domestic railroads and trucks that move pipes, sand and water for fracking operations.

In 2018, total fee revenue and other income increased $8,564,000, or 9%, net interest income after provision for loan losses increased $4,400,000, or 11%, total operating expenses increased $11,516,000, or 11%, and net income increased $5,254,000, or 21%. This positive performance in 2018 was driven by new customer wins, increased business from existing customers, the development and deployment of new revenue generating services, and higher interest rates. Additionally, the growth in net income was enhanced by the 2017 one-time, non-cash charge of $1,824,000 due to tax reform. The increase in total operating expense was due mainly to the Company continuing to invest in personnel, technology, and infrastructure to support future service growth. As a part of that investment, the Company hired a chief information officer and a vice president of security and risk as a part of a major restructuring of the IT organization to promote responsiveness in each business yet obtain the benefits of scalability, efficiency, and security that centralization can bring. The asset quality of the Company's loans and investments as of December 31, 2018 remained strong.

Currently, management views Cass' major opportunity as the continued expansion of its payment and information processing service offerings and customer base. Management intends to accomplish this by maintaining the Company's leadership position in applied technology, which when combined with the security and processing controls of the Bank, makes Cass unique in the industry.

Impact of New and Not Yet Adopted Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers*. The ASU supersedes revenue recognition requirements in Topic 605, Revenue Recognition, including most industry-specific revenue recognition guidance in the FASB Accounting Standards Codification ("ASC"). The core principle of the new guidance 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. The guidance identifies specific steps that entities should apply in order to achieve this principle. Under the ASU, the amendments are effective for interim and annual periods beginning January 1, 2018 and must be applied retrospectively.

On January 1, 2018, the Company adopted Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 606, *Revenue from Contracts with Customers* ("FASB ASC 606"), and selected the modified retrospective transition method. The adoption of this new standard did not impact the Company's results of operations or balance sheet and there was no cumulative effect of initially applying this new revenue standard to the opening balance of retained earnings. Since interest income on loans and securities are both excluded from this topic, a significant portion of the Company's revenues are not subject to the new guidance. The services that fall within the scope of FASB ASC 606 are presented within fee revenue and other income in the Consolidated Statements of Income and are recognized as revenue as the obligation to the customer is satisfied. Services within the scope of FASB ASC 606 include invoice processing and payment fees, bank service fees, and other real estate owned ("OREO").

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In February 2016, the FASB issued Accounting Standards Update ("ASU") No. 2016-02 *Leases (ASC Topic 842)*. The ASU improves financial reporting about leasing transactions. The ASU affects all companies and other organizations that lease assets such as real estate, airplanes, and manufacturing equipment. Consistent with current generally accepted accounting principles (GAAP), the recognition, measurement, and presentation of expenses and cash flows arising from a lease by a lessee primarily will depend on its classification as a finance or operating lease. However, unlike current GAAP—which requires only capital leases to be recognized on the balance sheet—the new ASU will require both types of leases to be recognized on the balance sheet. The ASU also will require disclosures to help investors and other financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. These disclosures include qualitative and quantitative requirements, providing additional information about the amounts recorded in the financial statements. The ASU on leases will take effect for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. A third-party vendor solution has been selected to assist in the application of ASU 2016-02. The Company will adopt this ASU using a prospective transition approach, which applies the provisions of the new guidance at the effective date without adjusting the comparative periods presented. The adoption of this ASU is expected to add assets and liabilities of approximately $9-11 million to the Company's balance sheet.

In June 2016, the FASB issued ASU No. 2016-13 - Financial Instruments – *Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* ("CECL"). The ASU requires measurement and recognition of expected credit losses for financial assets held. Under this standard, it will be required to hold an allowance equal to the expected life-of-loan losses on the loan portfolio. The standard is effective for fiscal periods beginning after December 15, 2019. The Company expects to recognize a one-time cumulative effect adjustment to the allowance for loan losses as of the beginning of the first reporting period in which the new standard is effective, but cannot yet determine the magnitude of any such one-time adjustment or the overall impact of the new guidance on the consolidated financial statements.

Critical Accounting Policies

The Company has prepared the consolidated financial statements in this report in accordance with the FASB ASC. In preparing the consolidated financial statements, management makes estimates and assumptions that affect the reported amount of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. These estimates have been generally accurate in the past, have been consistent and have not required any material changes. There can be no assurances that actual results will not differ from those estimates. An accounting policy that requires significant management estimates and is deemed critical to the Company's results of operations or financial position has been discussed with the Audit Committee of the Board of Directors and is described below.

Allowance for Loan Losses. The Company performs periodic and systematic detailed reviews of its loan portfolio to assess overall collectability. The level of the allowance for loan losses reflects management's estimate of the collectability of the loan portfolio. Although these estimates are based on established methodologies for determining allowance requirements, actual results can differ significantly from estimated results. These policies affect both segments of the Company. The impact and associated risks related to these policies on the Company's business operations are discussed in the "Provision and Allowance for Loan Losses" section of this report. The Company's estimates have been materially accurate in the past, and accordingly, the Company expects to continue to utilize the present processes thru 2019, after which CECL will be adopted.

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Summary of Results

	For the Years Ended December 31,			% Change	
(In thousands except per share data)	**2018**	**2017**	**2016**	**2018 v. 2017**	**2017 v. 2016**
Total processing volume	66,255	63,207	57,897	4.8 %	9.2 %
Total processing dollars	$42,380,453	$37,597,035	$34,689,268	12.7	8.4
Payment and processing fees	$102,181	$93,322	$83,713	9.5	11.5
Net interest income after provision for loan losses	$44,190	$39,790	$39,401	11.1	1.0
Total net revenue	$148,266	$135,302	$125,537	9.6	7.8
Average earning assets	$ 1,403,748	$ 1,362,660	$ 1,308,914	3.0	4.1
Net interest margin [1]	3.32 %	3.34 %	3.32 %	—	—
Net income	$30,268	$25,014	$24,348	21.0	2.7
Diluted earnings per share [2]	$2.03	$1.68	$1.63	20.8	3.1
Return on average assets	1.85 %	1.60 %	1.62 %	—	—
Return on average equity	13.55 %	11.55 %	11.76 %	—	—

(1) Presented on a tax-equivalent basis. The TCJA reduced the net interest margin by approximately 20 basis points in 2018.
(2) Diluted earnings per share was restated for the stock dividend that was paid on December 14, 2018.
The results of 2018 compared to 2017 include the following significant items:

Overall, the Company’s performance improved as a result of new customer wins, increased business from existing customers, the development and deployment of new revenue-generating services, and higher interest rates. Payment and processing fees and total processing volume increased 9% and 5%, respectively. Higher carrier and fuel prices in concert with higher volume from current accounts and new customer wins produced an increase in processing dollars of 13%. Net income in 2018 increased 21% because of the aforementioned items as well as the one-time, non-cash tax charge to income tax expense in 2017 triggered by the passage of the TCJA.

Average earning assets increased 3% and net interest income after provision for loan losses increased 11% year over year. The increase in net interest income after provision for loan losses was due to higher interest rates and higher average earning assets. There was no loan loss provision recorded in either 2017 or 2018.

There were losses from the sale of securities in 2018 of $42,000 and no gains or losses on sales of securities in 2017. Operating expenses increased $11,516,000, or 11%, as the Company continued to invest in personnel, technology, and infrastructure to support future service growth.

The results of 2017 compared to 2016 include the following significant items:

Overall, the Company’s performance improved as a result of continued growth in the customer base and new revenue-generating services. Payment and processing fees and total processing volume increased 12% and 9%, respectively. Against the backdrop of a strengthening global economy, increased carrier and fuel prices combined with higher volume from current accounts to produce an increase in processing dollars of 8%. Net income in 2017 increased 3% despite a onetime, non-cash charge to income tax expense of $1,824,000 triggered by the passage of the TCJA on December 22, 2017.

Average earning assets increased 4% and net interest income after provision for loan losses increased 1% year over year. The increase in net interest income after provision for loan losses was primarily due to higher average earning assets but was largely offset by a negative provision for loan losses of $1,500,000 in 2016 compared to none in 2017.

There were no gains from the sale of securities in 2017 and $387,000 in 2016. Bank service fees increased $73,000, or 6%, and other income increased $81,000. Operating expenses increased $6,930,000, or 7%, as the Company continued to invest in staff and technology to win and support new business.

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Fee Revenue and Other Income

The Company's fee revenue is derived mainly from transportation and facility payment and processing fees. As the Company provides its processing and payment services, it is compensated by service fees which are typically calculated on a per-item basis, discounts received for services provided to carriers and by the accounts and drafts payable balances generated in the payment process which can be used to generate interest income. Processing volumes, fee revenue and other income were as follows:

	December 31,			% Change	
(In thousands)	**2018**	**2017**	**2016**	**2018 v. 2017**	**2017 v. 2016**
Transportation invoice transaction volume	37,542	35,546	34,352	5.6%	3.5%
Transportation invoice dollar volume	$ 28,549,225	$ 24,801,733	$ 22,774,909	15.1	8.9
Expense management transaction volume[1]	28,713	27,661	23,545	3.8	17.5
Expense management dollar volume[1]	$ 13,831,228	$ 12,795,302	$ 11,914,359	8.1	7.4
Payment and processing revenue	$ 102,181	$ 93,322	$ 83,713	9.5	11.5
Bank service fees	$ 1,335	$ 1,349	$ 1,276	(1.0)	5.7
(Losses) gains on sales of investment securities	$ (42)	—	$ 387	—	—
Other	$ 602	$ 841	$ 760	(28.4)	10.7

(1) Includes energy, telecom and environmental

Fee revenue and other income in 2018 compared to 2017 include the following significant pre-tax components:

In the transportation sector, higher volume from current accounts helped increase invoice volume 6%. Higher carrier and fuel prices in concert with the higher volume from current accounts produced a 15% increase in dollar volume. The increase in dollar volume generated larger investable balances that improved investment income and raised fees from carrier services. Expense management transaction volume increased 4% and dollar volume increased 8% as a result of new customer wins and increased volumes from current accounts. There were losses from the sale of securities in 2018 of $42,000 and no gains or losses on sales of securities in 2017.

Fee revenue and other income in 2017 compared to 2016 include the following significant pre-tax components:

In the transportation sector, new business and a growing customer base increased invoice volume 4%. The strong global economy combined with increased carrier and fuel prices produced a 9% increase in dollar volume. The increase in dollar volume generated larger investable balances that improved investment income and raised fees from carrier services. Expense management transaction volume increased 18% and dollar volume increased 7% as a result of new customer wins and increased volumes from current accounts. There were no gains on sales of investment securities.

Net Interest Income

Net interest income is the difference between interest earned on loans, investments, and other earning assets and interest expense on deposits and other interest-bearing liabilities. Net interest income is a significant source of the Company's revenues. The following table summarizes the changes in tax-equivalent net interest income and related factors:

	December 31,			% Change	
(In thousands)	**2018**	**2017**	**2016**	**2018 v. 2017**	**2017 v. 2016**
Average earning assets	$ 1,403,748	$ 1,362,660	$ 1,308,914	3.0%	4.1%
Net interest income [1]	$ 46,612	$ 45,480	$ 43,402	2.5%	4.8%
Net interest margin [1]	3.32%	3.34%	3.32%		
Yield on earning assets [1]	3.59%	3.50%	3.47%		
Rate on interest bearing liabilities	1.00%	.56%	.48%		

(1) Presented on a tax-equivalent basis using a tax rate of 21% in 2018 and 35% in both 2017 and 2016. The net interest margin and yield on earning assets are lower by approximately 20 basis points and net interest income was approximately $2,700,000 lower in 2018 as a result of a lower tax-equivalent adjustment due to TCJA.

Net interest income in 2018 compared to 2017:

The increase in net interest income was primarily due to an increase in average earning assets and was partially offset by a slight decrease in the net interest margin as a result of TCJA. More information is contained in the tables below and in Item 7A of this report.

Total average investment in securities and certificates of deposit increased $21,499,000, or 5%. The investment portfolio will expand and contract over time as the Company manages its liquidity and interest rate position. All purchases were made in accordance with the Company's investment policy. Interest bearing deposits in other financial institutions increased $23,700,000, or 24%. Total average federal funds sold and other short-term investments decreased $51,304,000, or 31%.

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Total average loans increased $47,193,000, or 7%, to $710,846,000. Loans have a positive effect on interest income and the net interest margin due to the fact that loans are one of the Company’s highest yielding earning assets for any given maturity.

The Bank’s total average interest-bearing deposits decreased $21,525,000, or 5%, compared to the prior year. Average rates paid on interest-bearing liabilities increased from .56% to 1.00% as a result of overall market rate increases for deposits.

Net interest income in 2017 compared to 2016:

The increase in net interest income was primarily due to an increase in average earning assets combined with a slight improvement in the net interest margin as a result of an improving interest rate environment. More information is contained in the tables below and in Item 7A of this report.

Total average investment in securities and certificates of deposit increased $73,697,000, or 20%. The investment portfolio will expand and contract over time as the Company manages its liquidity and interest rate position. All purchases were made in accordance with the Company’s investment policy. Total average federal funds sold and other short-term investments increased $19,047,000, or 13%. Interest bearing deposits in other financial institutions decreased $24,590,000, or 20%.

Total average loans decreased $14,408,000, or 2%, to $663,653,000. Loans have a positive effect on interest income and the net interest margin due to the fact that loans are one of the Company’s highest yielding earning assets for any given maturity.

The Bank’s total average interest-bearing deposits decreased $29,184,000, or 7%, compared to the prior year. Average rates paid on interest-bearing liabilities increased from .48% to .56%.

Distribution of Assets, Liabilities and Shareholders' Equity; Interest Rate and Interest Differential

The following table contains condensed average balance sheets for each of the periods reported, the tax-equivalent interest income and expense on each category of interest-earning assets and interest-bearing liabilities, and the average yield on such categories of interest-earning assets and the average rates paid on such categories of interest-bearing liabilities for each of the periods reported:

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(In thousands)	2018 Average Balance	2018 Interest Income/ Expense	2018 Yield/ Rate	2017 Average Balance	2017 Interest Income/ Expense	2017 Yield/ Rate	2016 Average Balance	2016 Interest Income/ Expense	2016 Yield/ Rate
Assets [1]									
Earning assets									
Loans [2], [3]:									
Taxable	$ 709,280	$ 32,429	4.57%	$ 658,791	$ 28,511	4.33%	$ 660,341	$ 28,506	4.32%
Tax-exempt **(4)**	1,566	60	3.83	4,862	199	4.09	17,720	857	4.84
Securities **(5)**:									
Taxable	86,164	2,007	2.33	23,172	472	2.04	5,030	93	1.85
Tax-exempt **(4)**	362,726	11,473	3.16 [4]	403,485	16,060	3.98	347,099	14,858	4.28
Certificates of deposit	6,236	97	1.56	6,970	82	1.18	7,801	51	.65
Interest-bearing deposits in other financial institutions	124,101	2,338	1.88	100,401	1,036	1.03	124,991	638	.51
Federal funds sold and other short-term investments	113,675	1,944	1.71	164,979	1,307	.79	145,932	428	.29
Total earning assets	1,403,748	50,348	3.59 [4]	1,362,660	47,667	3.50	1,308,914	45,431	3.47
Non-earning assets									
Cash and due from banks	13,336			12,904			11,822		
Premises and equipment, net	22,355			21,299			20,503		
Bank owned life insurance	17,142			16,676			16,174		
Goodwill and other intangibles	14,354			14,464			13,799		
Other assets	177,156			150,303			144,165		
Allowance for loan losses	(10,215)			(10,194)			(10,903)		
Total assets	$ 1,637,876			$ 1,568,112			$ 1,504,474		
Liabilities and Shareholders' Equity [1]									
Interest-bearing liabilities									
Interest-bearing demand deposits	$ 302,816	$ 2,832	.94%	$ 323,635	$ 1,610	.50%	$ 343,205	$ 1,388	.40%
Savings deposits	11,451	109	.95	15,540	79	.51	20,524	100	.49
Time deposits >=$250	16,639	210	1.26	16,022	150	.94	14,463	172	1.19
Other time deposits	41,045	585	1.43	38,279	348	.91	44,468	369	.83
Total interest-bearing deposits	371,951	3,736	1.00	393,476	2,187	.56	422,660	2,029	.48
Short-term borrowings	10	—	—	13	—	—	—	—	—
Total interest-bearing liabilities	371,961	3,736	1.00	393,489	2,187	.56	422,660	2,029	.48
Noninterest-bearing liabilities									
Demand deposits	252,926			209,014			192,315		
Accounts and drafts payable	745,713			713,052			654,845		

Other liabilities	43,904			36,009		27,594	
Total liabilities	1,414,504			1,351,564		1,297,414	
Shareholders' equity	223,372			216,548		207,060	
Total liabilities and shareholders' equity	$ 1,637,876			$ 1,568,112		$ 1,504,474	
Net interest income **(4)**		$ 46,612 **(4)**			$ 45,480		$ 43,402
Net interest margin **(4)**			3.32% (4)		3.34%		3.32%
Interest spread			2.59%		2.94%		2.99%

(1) Balances shown are daily averages.

(2) For purposes of these computations, nonaccrual loans are included in the average loan amounts outstanding. Interest on nonaccrual loans is recorded when received as discussed further in Item 8, Note 1 of this report.

(3) Interest income on loans includes net loan fees of $393,000, $415,000, and $586,000 for 2018, 2017 and 2016, respectively.

(4) Interest income is presented on a tax-equivalent basis assuming a tax rate of 21% in 2018 and 35% in both 2017 and 2016. The tax-equivalent adjustment was approximately $2,422,000, $5,691,000 and $5,500,000 for 2018, 2017 and 2016, respectively. The TCJA reduced the yield/rate on tax-exempt securities by approximately 70 basis points and the yield on earning assets and net interest margin by approximately 20 basis points in 2018. Net interest income also decreased by approximately $2,700,000 as a result of TCJA.

(5) For purposes of these computations, yields on investment securities are computed as interest income divided by the average amortized cost of the investments.

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Analysis of Net Interest Income Changes

The following table presents the changes in interest income and expense between years due to changes in volume and interest rates.

	2018 Over 2017			2017 Over 2016		
(In thousands)	Volume [1]	Rate [1]	Total	Volume [1]	Rate [1]	Total
Increase (decrease) in interest income:						
Loans [2], [3]:						
Taxable	$ 2,256	$ 1,662	$ 3,918	$ (67)	$ 72	$ 5
Tax-exempt [4]	(127)	(12)	(139)	(543)	(115)	(658)
Securities:						
Taxable	1,458	77	1,535	369	10	379
Tax-exempt [4]	(1,512)	(3,075)	(4,587)	2,291	(1,089)	1,202
Certificates of deposit	(9)	24	15	(6)	37	31
Interest-bearing deposits in other financial institutions	289	1,013	1,302	(146)	544	398
Federal funds sold and other short-term investments	(506)	1,143	637	63	816	879
Total interest income	$ 1,849	$ 832	$ 2,681	$ 1,961	$ 275	$ 2,236
Interest expense on:						
Interest-bearing demand deposits	$ (110)	$ 1,332	$ 1,222	$ (82)	$ 304	$ 222
Savings deposits	(25)	55	30	(25)	4	(21)
Time deposits >=$250	6	54	60	17	(39)	(22)
Other time deposits	27	210	237	(54)	33	(21)
Short-term borrowings	—	—	—	—	—	—
Total interest expense	(102)	1,651	1,549	(144)	302	158
Net interest income	$ 1,951	$ (819)	$ 1,132	$ 2,105	$ (27)	$ 2,078

(1) The change in interest due to the combined rate/volume variance has been allocated in proportion to the absolute dollar amounts of the change in each.
(2) Average balances include nonaccrual loans.
(3) Interest income includes net loan fees.
(4) Interest income is presented on a tax-equivalent basis assuming a tax rate of 21% in 2018 and 35% in both 2017 and 2016. The TCJA reduced interest income on tax-exempt securities by approximately $2,700,000 in 2018.

Loan Portfolio

Interest earned on the loan portfolio is a primary source of income for the Company. The loan portfolio was $721,587,000 and represented 43% of the Company's total assets as of December 31, 2018 and generated $32,477,000 in revenue during the year then ended. The Company had no sub-prime mortgage loans or residential development loans in its portfolio for any of the years presented. The following tables show the composition of the loan portfolio at the end of the periods indicated and remaining maturities for loans as of December 31, 2018.

Loans by Type	December 31,				
(In thousands)	2018	2017	2016	2015	2014
Commercial and industrial	$ 277,091	$ 236,394	$ 214,767	$ 193,430	$ 203,350
Real estate (commercial and faith-based):					
Mortgage	411,752	410,748	425,947	415,564	423,641
Construction	32,434	35,307	17,477	30,139	18,612
Industrial Revenue Bond	—	3,374	6,639	19,831	23,348
Other	310	408	36	91	395
Total loans	$ 721,587	$ 686,231	$ 664,866	$ 659,055	$ 669,346

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Loans by Maturity
(At December 31, 2018)

(In thousands)	One Year Or Less Fixed Rate	One Year Or Less Floating Rate [1]	Over 1 Year Through 5 Years Fixed Rate	Over 1 Year Through 5 Years Floating Rate [1]	Over 5 Years Fixed Rate	Over 5 Years Floating Rate [1]	Total
Commercial and industrial	$ 15,697	$ 68,029	$ 78,159	$ 52,815	$ 55,564	$ 6,827	$ 277,091
Real Estate:							
Mortgage	49,623	5,588	268,428	10,977	75,079	2,057	411,752
Construction	18,769	1,430	1,321	10,914	—	—	32,434
Other	—	310	—	—	—	—	310
Total loans	$ 84,089	$ 75,357	$ 347,908	$ 74,706	$ 130,643	$ 8,884	$ 721,587

[1] Loans have been classified as having "floating" interest rates if the rate specified in the loan varies with the prime commercial rate of interest. The Company has no concentrations of loans exceeding 10% of total loans, which are not otherwise disclosed in the loan portfolio composition table and as are discussed in Item 8, Note 4, of this report. As can be seen in the loan composition table above and as discussed in Item 8, Note 4, the Company's primary market niche for banking services is privately held businesses, franchises, and faith-based ministries.

Loans to commercial entities are generally secured by the business assets of the borrower, including accounts receivable, inventory, machinery and equipment, and the real estate from which the borrower operates. Operating lines of credit to these companies generally are secured by accounts receivable and inventory, with specific percentages of each determined on a customer-by-customer basis based on various factors including the type of business. Intermediate term credit for machinery and equipment is generally provided at some percentage of the value of the equipment purchased, depending on the type of machinery or equipment purchased by the entity. Loans secured exclusively by real estate to businesses and faith-based ministries are generally made with a maximum 80% loan to value ratio, depending upon the Company's estimate of the resale value and ability of the property to generate cash. The Company's loan policy requires an independent appraisal for all loans over $250,000 secured by real estate. Company management monitors the local economy in an attempt to determine whether it has had a significant deteriorating effect on such real estate loans. When problems are identified, appraised values are updated on a continual basis, either internally or through an updated external appraisal.

Loan portfolio changes from December 31, 2017 to December 31, 2018:

Total loans increased $35,356,000, or 5%, to $721,587,000. Additional details regarding the types and maturities of loans in the loan portfolio are contained in the tables above and in Item 8, Note 4.

Loan portfolio changes from December 31, 2016 to December 31, 2017:

Total loans increased $21,365,000, or 3%, to $686,231,000. Additional details regarding the types and maturities of loans in the loan portfolio are contained in the tables above and in Item 8, Note 4.

Provision and Allowance for Loan Losses (ALLL)

The Company recorded no provision for loan losses in 2018 or 2017, and ($1,500,000) in 2016. The amount of the provisions for loan losses was derived from the Company’s quarterly analysis of the ALLL. The amount of the provision will fluctuate as determined by these quarterly analyses. The Company had net loan recoveries of $20,000, $30,000, and $40,000 in 2018, 2017, and 2016, respectively. The ALLL was $10,225,000 at December 31, 2018 compared to $10,205,000 at December 31, 2017 and $10,175,000 at December 31, 2016. The year-end 2018 allowance represented 1.4% of outstanding loans, while the allowance represented 1.5% of outstanding loans at year-end 2017 and 2016. From December 31, 2017 to December 31, 2018, there were no nonperforming loans. Nonperforming loans are more fully explained in the section entitled “Nonperforming Assets.”

The ALLL has been established and is maintained to absorb reasonably estimated and probable losses in the loan portfolio. An ongoing assessment is performed to determine if the balance is adequate. Charges or credits are made to expense to cover any deficiency or reduce any excess, as required. The current methodology consists of two components: 1) estimated credit losses on individually evaluated loans that are determined to be impaired in accordance with FASB ASC 310 - *Allowance for Credit Losses* and 2) estimated credit losses inherent in the remainder of the loan portfolio in accordance with FASB ASC 450 - *Contingencies*. Estimated credit losses is an estimate of the current amount of loans that is probable the Company will be unable to collect according to the original terms.

For loans that are individually evaluated, the Company uses two impairment measurement methods: 1) the present value of expected future cash flows and 2) collateral value. For the remainder of the portfolio, the Company groups loans with similar risk characteristics into eight segments and applies historical loss rates to each segment based on a five fiscal-year look-back period. In addition, qualitative factors including credit concentration risk, national and local economic conditions, nature and volume of loan portfolio, legal and regulatory factors, downturns in specific industries including losses in collateral values, trends in credit quality at the Company and in the banking industry and trends in risk-rating agencies are also considered.

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The Company also utilizes ratio analysis to evaluate the overall reasonableness of the ALLL compared to its peers and required levels of regulatory capital. Federal and state agencies review the Company's methodology for maintaining the ALLL. These agencies may require the Company to adjust the ALLL based on their judgments and interpretations about information available to them at the time of their examinations.

The following schedule summarizes activity in the ALLL and the allocation of the allowance to the Company's loan categories.

Summary of Loan Loss Experience

(In thousands)	December 31, 2018	2017	2016	2015	2014
Allowance at beginning of year	$ 10,205	$ 10,175	$ 11,635	$ 11,894	$ 11,679
Loans charged-off:					
Commercial and industrial	—	—	—	30	—
Real estate (commercial and faith-based):					
Mortgage	—	—	—	—	76
Construction	—	—	—	—	—
Other	—	—	—	—	3
Total loans charged-off	—	—	—	30	79
Recoveries of loans previously charged-off:					
Commercial and industrial	20	30	39	610	41
Real estate (commercial and faith-based):					
Mortgage	—	—	1	10	252
Construction	—	—	—	—	—
Other	—	—	—	1	1
Total recoveries of loans previously charged-off	20	30	40	621	294
Net loans (recovered) charged-off	(20)	(30)	(40)	(591)	(215)
Provision (credited) charged to expense	—	—	(1,500)	(850)	—
Allowance at end of year	$ 10,225	$ 10,205	$ 10,175	$ 11,635	$ 11,894
Loans outstanding:					
Average	$ 710,846	$ 663,653	$ 678,061	$ 671,019	$ 663,824
December 31	721,587	686,231	664,866	659,055	669,346
Ratio of allowance for loan losses to loans outstanding:					
Average	1.44%	1.54%	1.50%	1.76%	1.79%
December 31	1.41%	1.49%	1.53%	1.77%	1.78%
Ratio of net (recoveries) charge-offs to average loans outstanding	—	—	(.01)%	(.09)%	(.03)%
Allocation of allowance for loan losses [1]:					
Commercial and industrial	$ 4,179	$ 3,652	$ 3,261	$ 3,083	$ 3,515
Real estate (commercial and faith-based):					
Mortgage	5,378	5,356	5,689	6,885	7,076
Construction	244	266	132	226	140
Industrial Revenue Bond	—	52	101	320	394
Other [2]	424	879	992	1,121	769
Total	$ 10,225	$ 10,205	$ 10,175	$ 11,635	$ 11,894
Percentage of categories to total loans:					
Commercial and industrial	38.4 %	34.4 %	32.3 %	29.3 %	30.4 %
Real estate (commercial and faith-based):					
Mortgage	57.1 %	59.9 %	64.1 %	63.1 %	63.3 %
Construction	4.5%	5.1%	2.6%	4.6%	2.8%
Industrial Revenue Bond	— %	.59 %	1.0 %	3.0 %	3.5 %
Other	— %	.01 %	— %	— %	— %
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

(1) Although specific allocations exist, the entire allowance is available to absorb losses in any particular loan category.
(2) Includes unallocated allowance of $423,000 and $877,000 in 2018 and 2017, respectively.

Nonperforming Assets

Nonperforming loans are defined as loans on non-accrual status and loans 90 days or more past due but still accruing. Nonperforming assets include nonperforming loans plus foreclosed real estate. Troubled debt restructurings are not included in nonperforming loans unless they are on non-accrual status or past due 90 days or more.

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It is the policy of the Company to continually monitor its loan portfolio and to discontinue the accrual of interest on any loan for which collection is not probable. Subsequent payments received on such loans are applied to principal if collection of principal is not probable; otherwise, these receipts are recorded as interest income. Interest on nonaccrual loans, which would have been recorded under the original terms of the loans, was approximately $0 and $24,000 for the years ended December 31, 2018 and 2017, respectively. Of this amount, approximately $0 and $17,000 was actually recorded as interest income on such loans during the years ended December 31, 2018 and 2017, respectively.

There were no nonaccrual loans or foreclosed assets at December 31, 2018 or December 31, 2017.

The Company does not have any foreign loans. The Company's loan portfolio does not include a significant amount of single family real estate mortgages, as the Company does not market its services to retail customers. Also, the Company had no sub-prime mortgage loans or residential development loans in its portfolio in any of the years presented.

The Company does not have any other interest-earning assets which would have been included in nonaccrual, past due or restructured loans if such assets were loans.

Summary of Nonperforming Assets

	December 31,				
(In thousands)	**2018**	**2017**	**2016**	**2015**	**2014**
Commercial and industrial:					
Nonaccrual	$ —	$ —	$ —	$ —	$ —
Contractually past due 90 days or more and still accruing	—	—	—	—	—
Real estate – mortgage:					
Nonaccrual	—	[1]	245	3,135[1]	488
Contractually past due 90 days or more and still accruing	—	—	—	—	—
Total nonperforming loans	$ —	$ —	$ 245	$ 3,135	$ 488
Total foreclosed assets	—	—	—	—	—
Total nonperforming assets	$ —	$ —	$ 245	$ 3,135	$ 488

[1] In October 2017, one nonaccrual loan with a balance of $215,000 was paid in full. In February 2016, one nonaccrual loan with a balance of $2,727,000 was paid in full.

Operating Expenses

Operating expenses in 2018 compared to 2017 include the following significant pre-tax components:

Salaries and employee benefits expense increased $8,542,000, or 11%, to $85,881,000 as the Company invested in staff and technology development to win and support new business. Outside service expense increased $1,026,000, or 15%, for continual technology advancements to support customers. Equipment expense increased $539,000 to $5,610,000 primarily due to depreciation of internally developed software. As a part of the increased investment in technology, the Company hired a chief information officer and a vice president of security and risk as a part of a major restructuring of the IT organization to promote responsiveness in each business yet obtain the benefits of scalability, efficiency, and security that centralization can bring.

Operating expenses in 2017 compared to 2016 include the following significant pre-tax components:

Salaries and employee benefits expense increased $4,758,000, or 7%, to $77,339,000 as the Company invested in staff and technology development to win and support new business. Outside service expense increased $1,355,000, or 24%, for continual technology advancements to support customers. Equipment expense increased $620,000 to $5,071,000 primarily due to depreciation of internally developed software.

Income Tax Expense

On December 22, 2017, the TCJA was enacted. Among other things, the new law (i) establishes a new, flat corporate federal statutory income tax rate of 21%; (ii) eliminates the corporate alternative minimum tax and allows the use of any such carryforwards to offset regular tax liability for any taxable year; (iii) limits the deduction for net interest expense incurred by U.S. corporations; (iv) allows businesses to immediately expense, for tax purposes, the cost of new investments in certain qualified depreciable assets; (v) eliminates or reduces certain deductions related to meals and entertainment expenses; (vi) modifies the limitation on excessive employee remuneration to eliminate the exception for performance-based compensation and clarifies the definition of a covered employee; and (vii) limits the deductibility of deposit insurance premiums. The TCJA also significantly changes U.S. tax law related to foreign operations, though, such changes do not currently impact the

Company on a significant level.

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Also on December 22, 2017, the SEC issued Staff Accounting Bulletin No. 118 ("SAB 118"), which provides guidance on accounting for tax effects of the TCJA. SAB 118 provides a measurement period of up to one year from the enactment date to complete the accounting. Based on the information available and current interpretation of the rules at December 31, 2017, the Company made provisional estimates of the impact of the reduction in the corporate tax rate and remeasurement of certain deferred tax assets and liabilities based on the rate at which they were expected to reverse in the future totaling $1,824,000. The final analysis and measurement was completed during the fourth quarter of 2018 when the Company filed the 2017 U.S. federal income tax return and a reduction of tax expense in the amount of $74,000 was recorded.

As more fully described in this Item 7 and Item 8, Note 13, the Company's 2017 results of operations are skewed by a onetime, non-cash charge to income tax expense of $1,824,000, triggered by the passage of the TCJA. While the reduction in the federal corporate tax rate negatively impacted 2017 earnings, the rate reduction is projected to significantly boost after-tax earnings in the future.

Taxable-equivalent adjustments noted throughout this report are the result of increasing income from tax-free loans and investments by an amount equal to the taxes that would be paid if the income were fully taxable based on a 35% federal tax rate, thus making tax-exempt yields comparable to taxable asset yields. Beginning January 1, 2018, taxable-equivalent adjustments are based upon the new tax rate of 21% as a result of the TCJA.

Income tax expense in 2018 totaled $6,079,000 compared to $9,885,000 and $7,716,000 in 2017 and 2016, respectively. When measured as a percent of pre-tax income, the Company's effective tax rate was 17% in 2018, 28% in 2017, and 24% in 2016. The decrease in 2018 tax expense was primarily the result of two items:

- the decrease in the federal income tax rate and
- the one-time, non-cash charge of $1,824,000 that increased 2017 tax expense triggered by the passage of the TCJA on December 22, 2017.

Investment Portfolio

Investment portfolio changes from December 31, 2017 to December 31, 2018:

State and political subdivision securities decreased $82,315,000, or 20%, to $334,717,000. U.S. government agency securities increased $59,322,000 to $104,822,000. The investment portfolio provides the Company with a significant source of earnings, secondary source of liquidity, and mechanisms to manage the effects of changes in loan demand and interest rates. Therefore, the size, asset allocation and maturity distribution of the investment portfolio will vary over time depending on management's assessment of current and future interest rates, changes in loan demand, changes in the Company's sources of funds and the economic outlook. During this period, the Company primarily purchased U.S. government agency securities. These securities all had A or better credit ratings and maturities approaching 15 years. Due to the passage of the TCJA and tax-exempt interest becoming less advantageous, the Company reduced the state and political subdivision security portfolio. All purchases were made in accordance with the Company's investment policy.

There was no single issuer of securities in the investment portfolio at December 31, 2018 for which the aggregate amortized cost exceeded 10% of total shareholders' equity.

Investments by Type

	December 31,		
(In thousands)	**2018**	**2017**	**2016**
State and political subdivisions	$ 334,717	$ 417,032	$ 370,134
U.S. government agencies	104,822	45,500	12,672
Certificates of deposit	1,995	7,991	7,746
Total investments	$ 441,534	$ 470,523	$ 390,552

Investment Securities by Maturity
(At December 31, 2018)

(In thousands)	**Within 1 Year**	**Over 1 to 5 Years**	**Over 5 to 10 Years**	**Over 10 Years**	**Yield**
State and political subdivisions	$ 6,491	$ 64,668	$ 226,196	$ 37,362	3.02% (1)
U.S. government agencies	—	61,085	17,922	25,815	2.39%
Certificates of deposit	1,495	500	—	—	1.99%
Total investments	$ 7,986	$ 126,253	$ 244,118	$ 63,177	2.86%
Weighted average yield (1)	3.56 %	2.64 %	3.05 %	2.52 %	2.86%

[1] Yields are presented on a tax-equivalent basis assuming a tax rate of 21% in 2018 and 35% in both 2017 and 2016. The TCJA reduced the yield by approximately 70 basis points.

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Deposits and Accounts and Drafts Payable

Noninterest-bearing demand deposits increased 11% from December 31, 2017 to $313,258,000 at December 31, 2018. The average balances of these deposits increased 21% in 2018 to $252,926,000. These balances are primarily maintained by commercial customers, faith-based ministries, and new payment and information processing relationships and can fluctuate on a daily basis.

Interest-bearing deposits increased $12,121,000, or 3%, to $408,668,000 at December 31, 2018. The average balances of these deposits decreased 5% to $371,951,000 in 2018 from $393,476,000 in 2017.

Accounts and drafts payable generated by the Company in its payment processing operations increased $21,528,000, or 3%, to $694,360,000 at December 31, 2018. The average balance of these funds increased $32,661,000, or 5%, to $745,713,000 in 2018. This increase was the result of continued growth in the customer base, a strengthening global economy, increased carrier rates, and higher energy prices. Due to the Company's payment processing cycle, average balances are much more indicative of the underlying activity than period-end balances since point-in-time comparisons can be misleading if the comparison dates fall on different days of the week.

The composition of average deposits and the average rates paid on those deposits is represented in the table entitled "Distribution of Assets, Liabilities and Shareholders' Equity; Interest Rate and Interest Differential" which is included earlier in this discussion. The Company does not have any significant deposits from foreign depositors.

Maturities of Certificates of Deposit as of December 31, 2018

(In thousands)	**$100 or Less**	**$100 to Less Than $250**	**$250 or More**	**Total**
Three months or less	$ 3,646	$ 16,634	$ 1,286	$ 21,566
Three to six months	342	21,327	1,742	23,411
Six to twelve months	322	1,856	3,999	6,177
Over twelve months	552	11,841	8,910	21,303
Total	$4,862	$51,658	$ 15,937	$ 72,457

Liquidity

The discipline of liquidity management as practiced by the Company seeks to ensure that funds are available to fulfill all payment obligations relating to invoices processed as they become due and meet depositor withdrawal requests and borrower credit demands while at the same time maximizing profitability. This is accomplished by balancing changes in demand for funds with changes in supply of funds. Primary liquidity to meet demand is provided by short-term liquid assets that can be converted to cash, maturing securities and the ability to obtain funds from external sources. The Company's Asset/Liability Committee ("ALCO") has direct oversight responsibility for the Company's liquidity position and profile. Management considers both on-balance sheet and off-balance sheet items in its evaluation of liquidity.

The balances of liquid assets consist of cash and cash equivalents, which include cash and due from banks, interest-bearing deposits in other financial institutions, federal funds sold, and money market funds, totaled $230,933,000 at December 31, 2018, an increase of $2,823,000, or 1%, from December 31, 2017. At December 31, 2018, these assets represented 14% of total assets. Cash and cash equivalents are the Company's and its subsidiaries' primary source of liquidity to meet future expected and unexpected loan demand, depositor withdrawals or reductions in accounts and drafts payable.

Secondary sources of liquidity include the investment portfolio and borrowing lines. Total investment in debt securities available-for-sale at fair value was $441,534,000 at December 31, 2018, a decrease of $28,989,000, or 6%, from December 31, 2017. These assets represented 26% of total assets at December 31, 2018 and were primarily state and political subdivision and treasury securities. Of the total portfolio, 2% mature in one year or less, 29% mature after one year through five years and 69% mature after five years.

As of December 31, 2018, the Bank had unsecured lines of credit at correspondent banks to purchase federal funds up to a maximum of $83,000,000 at the following banks: US Bank, $20,000,000; Wells Fargo Bank, $15,000,000; PNC Bank, $12,000,000; Frost National Bank, $10,000,000; JPM Chase Bank, $6,000,000; and UMB Bank $20,000,000. As of December 31, 2018, the Bank had secured lines of credit with the Federal Home Loan Bank ("FHLB") of $193,460,000 collateralized by commercial mortgage loans. At December 31, 2018, the Company had a line of credit from UMB Bank of $50,000,000 and First Tennessee Bank of $50,000,000 collateralized by state and political subdivision securities. There were no amounts outstanding under any of the lines of credit discussed above at December 31, 2018 or 2017.

The deposits of the Company's banking subsidiary have historically been stable, consisting of a sizable volume of core deposits related to customers that utilize many other commercial products of the Bank. The accounts and drafts payable generated by the Company have also historically been a stable source of funds.

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Net cash flows provided by operating activities for the years 2018, 2017 and 2016 were $48,335,000, $38,890,000, and $35,189,000, respectively. Net income plus depreciation and amortization accounts for most of the operating cash provided. Net cash flows from investing and financing activities fluctuate greatly as the Company actively manages its investment and loan portfolios and customer activity influences changes in deposit and accounts and drafts payable balances. Further analysis of the changes in these account balances is discussed earlier in this report. Due to the daily fluctuations in these account balances, management believes that the analysis of changes in average balances, also discussed earlier in this report, can be more indicative of underlying activity than the period-end balances used in the statements of cash flows. Management anticipates that cash and cash equivalents, maturing investments, cash from operations, and borrowing lines will continue to be sufficient to fund the Company's operations and capital expenditures in 2019. The Company anticipates the annual capital expenditures for 2019 should range from $4 million to $6 million. Capital expenditures in 2019 are expected to consist of equipment and software related to the payment and information processing services business.

There are several trends and uncertainties that may impact the Company's ability to generate revenues and income at the levels that it has in the past. In addition, these trends and uncertainties may impact available liquidity. Those that could significantly impact the Company include the general levels of interest rates, business activity, and energy costs as well as new business opportunities available to the Company.

As a financial institution, a significant source of the Company's earnings is generated from net interest income. Therefore, the prevailing interest rate environment is important to the Company's performance. A major portion of the Company's funding sources are the noninterest-bearing accounts and drafts payable generated from its payment and information processing services. Accordingly, higher levels of interest rates will generally allow the Company to earn more net interest income. Conversely, a lower interest rate environment will generally tend to depress net interest income. The Company actively manages its balance sheet in an effort to maximize net interest income as the interest rate environment changes. This balance sheet management impacts the mix of earning assets maintained by the Company at any point in time. For example, in a low interest rate environment, short-term relatively lower rate liquid investments may be reduced in favor of longer term relatively higher yielding investments and loans. If the primary source of liquidity is reduced in a low interest rate environment, a greater reliance would be placed on secondary sources of liquidity including borrowing lines, the ability of the Bank to generate deposits, and the investment portfolio to ensure overall liquidity remains at acceptable levels.

The overall level of economic activity can have a significant impact on the Company's ability to generate revenues and income, as the volume and size of customer invoices processed may increase or decrease. Lower levels of economic activity decrease both fee income (as fewer invoices are processed) and balances of accounts and drafts payable generated (as fewer invoices are processed) from the Company's transportation customers.

The relative level of energy costs can impact the Company's earnings and available liquidity. Lower levels of energy costs will tend to decrease transportation and energy invoice amounts resulting in a corresponding decrease in accounts and drafts payable. Decreases in accounts and drafts payable generate lower interest income and reduce liquidity.

New business opportunities are an important component of the Company's strategy to grow earnings and improve performance. Generating new customers allows the Company to leverage existing systems and facilities and grow revenues faster than expenses. During 2018, new business was added in both the transportation and facility expense management operations, driven by both successful marketing efforts and the solid market leadership position held by Cass.

Capital Resources

One of management's primary objectives is to maintain a strong capital base to warrant the confidence of customers, shareholders, and bank regulatory agencies. A strong capital base is needed to take advantage of profitable growth opportunities that arise and to provide assurance to depositors and creditors. The Company and its banking subsidiary continue to exceed all regulatory capital requirements, as evidenced by the capital ratios at December 31, 2018 as shown in Item 8, Note 2 of this report. All share and per share data have been restated to give effect to the 20% stock dividend that was paid on December 14, 2018.

In 2018, cash dividends paid were $.89 per share for a total of $13,177,000, an increase of $2,502,000, or 23%, compared to $.72 per share for a total of $10,675,000 in 2017. The increase is attributable to the per-share amount paid and the increase in outstanding shares as a result of the stock dividend.

Shareholders' equity was $229,848,000, or 14% of total assets, at December 31, 2018, an increase of $4,760,000 over the balance at December 31, 2017. This increase resulted primarily from net income of $30,268,000. This increase was partially offset by cash dividends of $13,177,000, the repurchase of treasury shares of $8,838,000, and an increase in other comprehensive loss of $5,552,000.

Dividends from the Bank are a source of funds for payment of dividends by the Company to its shareholders. The only restrictions on dividends are those dictated by regulatory capital requirements, state corporate laws and prudent and sound banking principles. As of December 31, 2018,

unappropriated retained earnings of $37,150,000 were available at the Bank for the declaration of dividends to the Company without prior approval from regulatory authorities.

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The Company maintains a treasury stock buyback program pursuant to which the Board of Directors has authorized the repurchase of up to 500,000 shares of the Company's common stock. The Company repurchased 169,143 shares at an aggregate cost of $8,838,000 during the year ended December 31, 2018 and 50,215 shares at an aggregate cost of $2,270,000 during the year ended December 31, 2017. As of December 31, 2018, 349,513 shares remained available for repurchase under the program. Shares repurchased have been restated to give effect to the 20% stock dividend that was paid on December 14, 2018. In January 2019, the Board restored the capacity of the buyback program to 500,000 shares. A portion of the repurchased shares may be used for the Company's employee benefit plans, and the balance will be available for other general corporate purposes. The stock repurchase authorization does not have an expiration date and the pace of repurchase activity will depend on factors such as levels of cash generation from operations, cash requirements for investments, repayment of debt, current stock price, and other factors. The Company may repurchase shares from time to time on the open market or in private transactions, including structured transactions. The stock repurchase program may be modified or discontinued at any time.

Commitments, Contractual Obligations and Off-Balance Sheet Arrangements

In the normal course of business, the Company is party to activities that involve credit, market and operational risk that are not reflected in whole or in part in the Company's consolidated financial statements. Such activities include traditional off-balance sheet credit-related financial instruments and commitments under operating and capital leases. These financial instruments include commitments to extend credit, commercial letters of credit and standby letters of credit. The Company's maximum potential exposure to credit loss in the event of nonperformance by the other party to the financial instrument for commitments to extend credit, commercial letters of credit and standby letters of credit is represented by the contractual amounts of those instruments. At December 31, 2018, no amounts have been accrued for any estimated losses for these instruments.

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract. Commercial and standby letters of credit are conditional commitments issued by the Company or its subsidiaries to guarantee the performance of a customer to a third party. These off-balance sheet financial instruments generally have fixed expiration dates or other termination clauses and may require payment of a fee. At December 31, 2018, the balance of loan commitments, standby and commercial letters of credit were $144,010,000, $11,368,000 and $3,486,000, respectively. Since some of the financial instruments may expire without being drawn upon, the total amounts do not necessarily represent future cash requirements. Commitments to extend credit and letters of credit are subject to the same underwriting standards as those financial instruments included on the consolidated balance sheets. The Company evaluates each customer's credit worthiness on a case-by-case basis. The amount of collateral obtained, if deemed necessary upon extension of the credit, is based on management's credit evaluation of the borrower. Collateral held varies, but is generally accounts receivable, inventory, residential or income-producing commercial property or equipment. In the event of nonperformance, the Company or its subsidiaries may obtain and liquidate the collateral to recover amounts paid under its guarantees on these financial instruments.

The following table summarizes contractual cash obligations of the Company related to operating lease commitments and time deposits at December 31, 2018:

	Amount of Commitment Expiration per Period				
(In thousands)	**Total**	**Less than 1 Year**	**1-3 Years**	**3-5 Years**	**Over 5 Years**
Operating lease commitments	$ 10,720	$ 1,639	$ 3,671	$ 2,370	$ 3,040
Time deposits	72,457	51,154	18,402	2,901	—
Total	$ 83,177	$ 52,793	$ 22,073	$ 5,271	$ 3,040

During 2018, the Company made no contribution to its noncontributory defined benefit pension plan. In determining pension expense, the Company makes several assumptions, including the discount rate and long-term rate of return on assets. These assumptions are determined at the beginning of the plan year based on interest rate levels and financial market performance.

For 2018, these assumptions were as follows:

Assumption	**Rate**
Weighted average discount rate	3.75 %
Rate of increase in compensation levels	(a)
Expected long-term rate of return on assets	6.50 %

(a) 6.00% graded down to 3.25% over the first seven years of service.

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ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Sensitivity

The Company faces market risk to the extent that its net interest income and its fair market value of equity are affected by changes in market interest rates. The asset/liability management discipline as applied by the Company seeks to limit the volatility, to the extent possible, of both net interest income and the fair market value of equity that can result from changes in market interest rates. This is accomplished by limiting the maturities of fixed rate investments, loans, and deposits; matching fixed rate assets and liabilities to the extent possible; and optimizing the mix of fees and net interest income. However, as discussed below, the Company's asset/liability position often differs significantly from most other financial holding companies with significant positive cumulative "gaps" shown for each time horizon presented. This asset sensitive position is caused primarily by the operations of the Company, which generate large balances of accounts and drafts payable. These balances, which are noninterest bearing, contribute to the Company's historical high net interest margin but cause the Company to become susceptible to changes in interest rates, with a decreasing net interest margin and fair market value of equity in periods of declining interest rates and an increasing net interest margin and fair market value of equity in periods of rising interest rates.

The Company's ALCO measures the Company's interest rate risk sensitivity on a quarterly basis to monitor and manage the variability of earnings and fair market value of equity in various interest rate environments. The ALCO evaluates the Company's risk position to determine whether the level of exposure is significant enough to hedge a potential decline in earnings and value or whether the Company can safely increase risk to enhance returns. The ALCO uses gap reports, 12-month net interest income simulations, and fair market value of equity analyses as its main analytical tools to provide management with insight into the Company's exposure to changing interest rates.

Management uses a gap report to review any significant mismatch between the re-pricing points of the Company's rate sensitive assets and liabilities in certain time horizons. A negative gap indicates that more liabilities re-price in that particular time frame and, if rates rise, these liabilities will re-price faster than the assets. A positive gap would indicate the opposite. Gap reports can be misleading in that they capture only the re-pricing timing within the balance sheet, and fail to capture other significant risks such as basis risk and embedded options risk. Basis risk involves the potential for the spread relationship between rates to change under different rate environments and embedded options risk relates to the potential for the alteration of the level and/or timing of cash flows given changes in rates.

Another measurement tool used by management is net interest income simulation, which forecasts net interest income during the coming 12 months under different interest rate scenarios in order to quantify potential changes in short-term accounting income. Management has set policy limits specifying acceptable levels of interest rate risk given multiple simulated rate movements. These simulations are more informative than gap reports because they are able to capture more of the dynamics within the balance sheet, such as basis risk and embedded options risk. A table containing simulation results as of December 31, 2018, from an immediate and sustained parallel change in interest rates is shown below.

While net interest income simulations do an adequate job of capturing interest rate risk to short term earnings, they do not capture risk within the current balance sheet beyond 12 months. The Company uses fair market value of equity analyses to help identify longer-term risk that may reside on the current balance sheet. The fair market value of equity is represented by the present value of all future income streams generated by the current balance sheet. The Company measures the fair market value of equity as the net present value of all asset and liability cash flows discounted at forward rates suggested by the current U.S. Treasury curve plus appropriate credit spreads. This representation of the change in the fair market value of equity under different rate scenarios gives insight into the magnitude of risk to future earnings due to rate changes. Management has set policy limits relating to declines in the market value of equity. The table below contains the analysis, which illustrates the effects of an immediate and sustained parallel change in interest rates as of December 31, 2018:

Change in Interest Rates	% Change in Net Interest Income	% Change in Fair Market Value of Equity
+200 basis points	11%	10%
+100 basis points	6%	5%
Stable rates	—	—
-100 basis points	(2%)	(4%)
-200 basis points	(11%)	(10%)

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Interest Rate Sensitivity Position

The following table presents the Company’s interest rate risk position at December 31, 2018 for the various time periods indicated:

(In thousands)	Variable Rate	0-90 Days	91-180 Days	181-364 Days	1-5 Years	Over 5 Years	Total
Earning assets:							
Loans:							
Taxable	$ 158,754	$ 29,550	$ 21,694	$ 33,038	$ 347,908	$ 130,643	$ 721,587
Tax-exempt	—	—	—	—	—	—	—
Securities [1]:							
Tax-exempt	—	1,318	3,129	2,044	64,667	263,559	334,717
U.S. government agencies	—	—	—	—	1,956	43,737	45,693
Treasuries	—	—	—	—	59,129		59,129
Certificates of deposit	—	—	—	1,495	500	—	1,995
Investments in the FHLB and FRB	1,279	—	—	—	—	—	1,279
Federal funds sold and other short-term investments	215,891	—	—	—	—	—	215,891
Total earning assets	$ 375,924	$ 30,868	$ 24,823	$ 36,577	$ 474,160	$ 437,939	$ 1,381,291
Interest-sensitive liabilities:							
Money market accounts	$ 239,724	$ —	$ —	$ —	$ —	$ —	$ 239,724
Now accounts	82,985	—	—	—	—	—	82,985
Savings deposits	13,502	—	—	—	—	—	13,502
Time deposits:							
$250K and more	—	1,286	1,742	3,999	8,910	—	15,937
Less than $250K	—	20,280	21,669	2,178	12,393	—	56,520
Federal funds purchased and other short-term borrowing	—	—	—	—	—	—	—
Total interest-bearing liabilities	$ 336,211	$ 21,566	$ 23,411	$ 6,177	$ 21,303	$ —	$ 408,668
Interest sensitivity gap:							
Periodic	$ 39,713	$ 9,302	$ 1,412	$ 30,400	$ 452,857	$ 437,939	$ 971,623
Cumulative	39,713	49,015	50,427	80,827	533,684	971,623	971,623
Ratio of interest-bearing assets to interest-bearing liabilities:							
Periodic	1.12	1.43	1.06	5.92	22.26	—	3.38
Cumulative	1.12	1.14	1.13	1.21	2.31	3.38	3.38

[1] Balances shown reflect earliest re-pricing date.

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

CASS INFORMATION SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31,	
(In thousands except share and per share data)	**2018**	**2017**
Assets		
Cash and due from banks	$ 15,042	$ 17,422
Interest-bearing deposits in other financial institutions	179,281	152,056
Federal funds sold and other short-term investments	36,610	58,632
Cash and cash equivalents	230,933	228,110
Securities available-for-sale, at fair value	441,534	470,523
Loans	721,587	686,231
Less allowance for loan losses	10,225	10,205
Loans, net	711,362	676,026
Premises and equipment, net	22,031	21,586
Investments in bank-owned life insurance	17,384	16,927
Payments in excess of funding	160,777	139,103
Goodwill	12,569	12,569
Other intangible assets, net	1,554	1,996
Other assets	97,032	90,369
Total assets	$ 1,695,176	$ 1,657,209
Liabilities and Shareholders' Equity		
Liabilities:		
Deposits		
Noninterest-bearing	$ 313,258	$ 281,541
Interest-bearing	408,668	396,547
Total deposits	721,926	678,088
Accounts and drafts payable	694,360	715,888
Other liabilities	49,042	38,145
Total liabilities	1,465,328	1,432,121
Shareholders' Equity:		
Preferred stock, par value $.50 per share; 2,000,000 shares authorized and no shares issued	—	—
Common stock, par value $.50 per share; 40,000,000 shares authorized, 15,505,772 and 13,047,858 shares issued at December 31, 2018 and 2017, respectively	7,753	6,524
Additional paid-in capital	205,770	204,631
Retained earnings	75,171	59,314
Common shares in treasury, at cost (894,486 and 760,962 shares at December 31, 2018 and 2017, respectively)	(39,974)	(32,061)
Accumulated other comprehensive loss	(18,872)	(13,320)
Total shareholders' equity	229,848	225,088
Total liabilities and shareholders' equity	$ 1,695,176	$ 1,657,209

See accompanying notes to consolidated financial statements.

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CASS INFORMATION SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME

	For the Years Ended December 31,		
(In thousands except per share data)	**2018**	**2017**	**2016**
Fee Revenue and Other Income:			
Information services payment and processing revenue	$ 102,181	$ 93,322	$ 83,713
Bank service fees	1,335	1,349	1,276
(Losses) gains on sales of securities	(42)	—	387
Other	602	841	760
Total fee revenue and other income	104,076	95,512	86,136
Interest Income:			
Interest and fees on loans	32,477	28,641	29,063
Interest and dividends on securities:			
Taxable	2,104	554	143
Exempt from federal income taxes	9,063	10,439	9,658
Interest on federal funds sold and other short-term investments	4,282	2,343	1,066
Total interest income	47,926	41,977	39,930
Interest Expense:			
Interest on deposits	3,736	2,187	2,029
Total interest expense	3,736	2,187	2,029
Net interest income	44,190	39,790	37,901
Provision for loan losses	—	—	(1,500)
Net interest income after provision for loan losses	44,190	39,790	39,401
Total net revenue	148,266	135,302	125,537
Operating Expense:			
Personnel	85,881	77,339	72,581
Occupancy	3,723	3,480	3,390
Equipment	5,610	5,071	4,451
Amortization of intangible assets	442	427	408
Other operating	16,263	14,086	12,643
Total operating expense	111,919	100,403	93,473
Income before income tax expense	36,347	34,899	32,064
Income tax expense	6,079	9,885	7,716
Net income	$ 30,268	$ 25,014	$ 24,348
Basic Earnings Per Share	$ 2.06	$ 1.70	$ 1.65
Diluted Earnings Per Share	2.03	1.68	1.63

See accompanying notes to consolidated financial statements.

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CASS INFORMATION SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	For the Years Ended December 31,		
(In thousands)	**2018**	**2017**	**2016**
Comprehensive Income:			
Net income	$ 30,268	$ 25,014	$ 24,348
Other comprehensive (loss) income:			
Net unrealized (loss) gain on securities available-for-sale	(7,534)	6,637	(10,644)
Tax effect	1,793	(2,465)	3,954
Reclassification adjustments for losses (gains) included in net income	42	—	(387)
Tax effect	(10)	—	144
FASB ASC 715 pension adjustment	341	(1,311)	(1,435)
Tax effect	(81)	487	531
Foreign currency translation adjustments	(103)	161	(42)
Total comprehensive income	$ 24,716	$ 28,523	$ 16,469

See accompanying notes to consolidated financial statements.

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CASS INFORMATION SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Years Ended December 31,		
(In thousands)	**2018**	**2017**	**2016**
Cash Flows From Operating Activities:			
Net income	$ 30,268	$ 25,014	$ 24,348
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	11,238	11,341	9,429
Net losses (gains) on sales of securities	42	—	(387)
Stock-based compensation expense	3,006	2,339	1,959
Provision for loan losses	—	—	(1,500)
Deferred income tax (benefit) expense	(3,521)	3,997	319
Increase (decrease) in current income tax liability	3,746	(3,026)	357
Increase in pension liability	4,641	8,008	4,137
Decrease (increase) in accounts receivable	4,709	(4,656)	(4,070)
Other operating activities, net	(5,794)	(4,127)	597
Net cash provided by operating activities	48,335	38,890	35,189
Cash Flows From Investing Activities:			
Proceeds from sales of securities available-for-sale	58,520	—	21,491
Proceeds from maturities of securities available-for-sale	38,116	44,156	43,524
Purchase of securities available-for-sale	(82,022)	(124,777)	(96,290)
Net increase in loans	(35,336)	(21,335)	(5,771)
(Increase) decrease in payments in excess of funding	(21,674)	(33,756)	179
Purchases of premises and equipment, net	(4,399)	(4,127)	(4,684)
Net cash used in investing activities	(46,795)	(139,839)	(41,551)
Cash Flows From Financing Activities:			
Net increase in noninterest-bearing demand deposits	31,717	66,885	32,833
Net decrease in interest-bearing demand and savings deposits	(7,838)	(7,472)	(51,440)
Net increase (decrease) in time deposits	19,959	(3,286)	(5,916)
Net (decrease) increase in accounts and drafts payable	(19,595)	19,601	65,028
Cash dividends paid	(13,177)	(10,675)	(9,979)
Purchase of common shares for treasury	(8,838)	(2,270)	(9,215)
Other financing activities, net	(945)	(467)	(1,378)
Net cash provided by financing activities	1,283	62,316	19,933
Net increase (decrease) in cash and cash equivalents	2,823	(38,633)	13,571
Cash and cash equivalents at beginning of year	228,110	266,743	253,172
Cash and cash equivalents at end of year	$ 230,933	$ 228,110	$ 266,743
Supplemental information:			
Cash paid for interest	$ 3,701	$ 2,178	$ 2,017
Cash paid for income taxes	6,723	7,677	7,061

See accompanying notes to consolidated financial statements.

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CASS INFORMATION SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(In thousands except per share data)	Common Stock	Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total
Balance, December 31, 2015	$ 5,966	$ 126,290	$ 103,994	$ (22,208)	$ (6,664)	$ 207,378
Net income			24,348			24,348
Cash dividends ($.68 per share)			(9,979)			(9,979)
Issuance of 47,779 common shares pursuant to stock-based compensation plan, net [(1)]		(1,231)		566		(665)
Exercise of SARs		(1,364)		651		(713)
Stock-based compensation expense		1,959				1,959
Purchase of 247,002 common shares [(1)]				(9,215)		(9,215)
Excess tax benefits associated with stock based compensation		2,801				2,801
Other comprehensive loss					(7,879)	(7,879)
Balance, December 31, 2016	$ 5,966	$ 128,455	$ 118,363	$ (30,206)	$ (14,543)	$ 208,035
Net income			25,014			25,014
Cash dividends ($.72 per share)			(10,675)			(10,675)
Stock dividend	558	75,108	(75,674)			(8)
Issuance of 29,378 common shares pursuant to stock-based compensation plan, net [(1)]		(821)		273		(548)
Exercise of SARs		(451)		142		(309)
Stock-based compensation expense		2,340				2,340
Purchase of 50,215 common shares [(1)]				(2,270)		(2,270)
Other comprehensive income					3,509	3,509
Other comprehensive income reclassification for ASU 2018-02			2,286		(2,286)	—
Balance, December 31, 2017	$ 6,524	$ 204,631	$ 59,314	$ (32,061)	$ (13,320)	$ 225,088
Net income			30,268			30,268
Cash dividends ($.89 per share)			(13,177)			(13,177)
Stock dividend	1,229		(1,234)			(5)
Issuance of 33,039 common shares pursuant to stock-based compensation plan, net [(1)]		(991)		624		(367)
Exercise of SARs		(876)		301		(575)
Stock-based compensation expense		3,006				3,006
Purchase of 169,143 common shares [(1)]				(8,838)		(8,838)
Other comprehensive loss					(5,552)	(5,552)
Balance, December 31, 2018	$ 7,753	$ 205,770	$ 75,171	$ (39,974)	$ (18,872)	$ 229,848

(1) Share and per share figures adjusted for the 20% stock dividend that was paid on December 14, 2018.
See accompanying notes to consolidated financial statements.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1
Summary of Significant Accounting Policies

Summary of Operations Cass Information Systems, Inc**.** (the "Company") provides payment and information services, which include processing and payment of transportation, energy, telecommunications and environmental invoices. These services include the acquisition and management of data, information delivery and financial exchange. The consolidated balance sheet captions, "Accounts and drafts payable" and "Payments in excess of funding," represent the Company's resulting financial position related to the payment services that are performed for customers. The Company also provides a full range of banking services to individual, corporate and institutional customers through Cass Commercial Bank (the "Bank"), its wholly owned bank subsidiary.

Basis of Presentation The accounting and reporting policies of the Company and its subsidiaries conform to U.S. generally accepted accounting principles ("GAAP"). The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries after elimination of intercompany transactions. Certain amounts in the 2017 and 2016 consolidated financial statements have been reclassified to conform to the 2018 presentation. Such reclassifications have no effect on previously reported net income or shareholders' equity. The Company issued a 20% stock dividend on December 14, 2018. The share and per share information have been restated unless indicated otherwise for all periods presented in the accompanying consolidated financial statements.

Use of Estimates In preparing the consolidated financial statements, Company management is required to make estimates and assumptions which significantly affect the reported amounts in the consolidated financial statements.

Cash and Cash Equivalents For purposes of the consolidated statements of cash flows, the Company considers cash and due from banks, interest-bearing deposits in other financial institutions, federal funds sold and other short-term investments as segregated in the accompanying consolidated balance sheets to be cash equivalents.

Investment in Debt Securities The Company classifies its debt marketable securities as available-for-sale. Securities classified as available-for-sale are carried at fair value. Unrealized gains and losses, net of the related tax effect, are excluded from earnings and reported in accumulated other comprehensive income, a component of shareholders' equity. A decline in the fair value of any available-for-sale security below cost that is deemed other than temporary results in a charge to earnings and the establishment of a new cost basis for the security. To determine whether impairment is other than temporary, the Company considers guidance provided in the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 320 - *Investments – Debt and Equity Securities*. When determining whether a debt security is other-than-temporarily impaired, the Company assesses whether it has the intent to sell the security and whether it is more likely than not that the Company will be required to sell prior to recovery of the amortized cost basis. Evidence considered in this assessment includes the reasons for impairment, the severity and duration of the impairment, changes in value subsequent to year-end and forecasted performance of the investee. Premiums and discounts are amortized or accreted to interest income over the estimated lives of the securities using the level-yield method. Interest income is recognized when earned. Gains and losses are calculated using the specific identification method.

Allowance for Loan Losses ("ALLL") The ALLL is increased by provisions charged to expense and is available to absorb charge-offs, net of recoveries. Management utilizes a systematic, documented approach in determining the appropriate level of the ALLL. Management's approach provides for estimated credit losses on individually evaluated loans in accordance with FASB ASC 310 - *Allowance for Credit Losses* ("ASC 310"). These estimates are based upon a number of factors, such as payment history, financial condition of the borrower, expected future cash flows and discounted collateral exposure.

Estimated credit losses inherent in the remainder of the portfolio are estimated in accordance with FASB ASC 450 - *Contingencies*. These loans are segmented into groups based on similar risk characteristics. Historical loss rates for each risk group, which are updated quarterly, are generally quantified using all recorded loan charge-offs and recoveries over a prescribed look-back period. These historical loss rates for each risk group are used as the starting point to determine the level of the allowance. The Company's methodology incorporates an estimated loss emergence period for each risk group. The loss emergence period is the period of time from when a borrower experiences a loss event and when the actual loss is recognized in the financial statements, generally at the time of initial charge-off of the loan balance. The Company's methodology also includes qualitative risk factors that allow management to adjust its estimates of losses based on the most recent information available and to address other limitations in the quantitative component that is based on historical loss rates. Such risk factors are generally reviewed and updated quarterly, as appropriate, and are adjusted to reflect changes in national and local economic conditions and developments, the volume and severity of delinquent and internally classified loans, loan concentrations, assessment of trends in collateral values, assessment of changes in borrowers' financial stability, and changes in lending policies and procedures, including underwriting standards and collections, charge-off and recovery practices.

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Management believes the ALLL is adequate to absorb probable losses in the loan portfolio. Additionally, various regulatory agencies, as an integral part of their examination process, periodically review the Company’s ALLL. Such agencies may require the Company to increase the ALLL based on their judgments and interpretations about information available to them at the time of their examinations.

Premises and Equipment Premises and equipment are stated at cost less accumulated depreciation and amortization. Depreciation is computed over the estimated useful lives of the assets, or the respective lease terms for leasehold improvements, using straight-line and accelerated methods. Estimated useful lives do not exceed 40 years for buildings, the lesser of 10 years or the life of the lease for leasehold improvements and range from 3 to 7 years for software, equipment, furniture and fixtures. Maintenance and repairs are charged to expense as incurred.

Intangible Assets Cost in excess of fair value of net assets acquired has resulted from business acquisitions. Goodwill and intangible assets with indefinite useful lives are not amortized, but instead are tested for impairment at least annually. Intangible assets with definite useful lives are amortized on a straight-line basis over their respective estimated useful lives.

Periodically, the Company reviews intangible assets for events or changes in circumstances that may indicate that the carrying amount of the assets may not be recoverable. Based on those reviews, adjustments of recorded amounts have not been required.

Non-marketable Equity Investments The Company accounts for non-marketable equity investments, in which it holds less than a 20% ownership, under the cost method. Under the cost method of accounting, investments are carried at cost and are adjusted only for other than temporary declines in fair value, distributions of earnings and additional investments. The Company periodically evaluates whether any declines in fair value of its investments are other than temporary. In performing this evaluation, the Company considers various factors including any decline in market price, where available, the investee's financial condition, results of operations, operating trends and other financial ratios. Non-marketable equity investments are included in other assets on the consolidated balance sheets.

Foreclosed Assets Real estate acquired as a result of foreclosure is initially recorded at fair value less estimated selling costs. Fair value is generally determined through the receipt of appraisals. Any write down to fair value at the time the property is acquired is recorded as a charge-off to the allowance for loan losses. Any decline in the fair value of the property subsequent to acquisition is recorded as a charge to non-interest expense.

Treasury Stock Purchases of the Company’s common stock are recorded at cost. Upon reissuance, treasury stock is reduced based upon the average cost basis of shares held.

Comprehensive Income Comprehensive income consists of net income, changes in net unrealized gains (losses) on available-for-sale securities and pension liability adjustments and is presented in the accompanying consolidated statements of shareholders' equity and consolidated statements of comprehensive income.

Loans Interest on loans is recognized based upon the principal amounts outstanding. It is the Company’s policy to discontinue the accrual of interest when there is reasonable doubt as to the collectability of principal or interest. Subsequent payments received on such loans are applied to principal if there is any doubt as to the collectability of such principal; otherwise, these receipts are recorded as interest income. The accrual of interest on a loan is resumed when the loan is current as to payment of both principal and interest and/or the borrower demonstrates the ability to pay and remain current. Loan origination and commitment fees on originated loans, net of certain direct loan origination costs, are deferred and amortized to interest income using the level-yield method over the estimated lives of the related loans.

Impairment of Loans A loan is considered impaired when it is probable that a creditor will be unable to collect all amounts due, both principal and interest, according to the contractual terms of the loan agreement. When measuring impairment, the expected future cash flows of an impaired loan are discounted at the loan's effective interest rate. Alternatively, impairment could be measured by reference to an observable market price, if one exists, or the fair value of the collateral for a collateral-dependent loan. Regardless of the historical measurement method used, the Company measures impairment based on the fair value of the collateral when the Company determines foreclosure is probable. Additionally, impairment of a restructured loan is measured by discounting the total expected future cash flows at the loan's effective rate of interest as stated in the original loan agreement. The Company uses its nonaccrual methods as discussed above for recognizing interest on impaired loans.

Information Services Revenue A majority of the Company’s revenues are attributable to fees for providing services. These services include transportation invoice rating, payment processing, auditing, and the generation of accounting and transportation information. The Company also processes, pays and generates management information from electric, gas, telecommunications, environmental, and other invoices. The specific payment and information processing services provided to each customer are developed individually to meet each customer’s specific requirements. The Company enters into service agreements with customers typically for fixed fees per transaction that are invoiced monthly.

Revenues are recognized in the period services are rendered and earned under the service agreements, as long as collection is reasonably assured.

Income Taxes Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases.

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Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. Deferred tax assets are reduced if necessary, by a deferred tax asset valuation allowance. In the event that management determines it is more likely than not that it will not be able to realize all or part of net deferred tax assets in the future, the Company adjusts the recorded value of deferred tax assets, which would result in a direct charge to income tax expense in the period that such determination is made. Likewise, the Company will reverse the valuation allowance when realization of the deferred tax asset is expected. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. The Company and its subsidiaries file U.S. federal and certain state income tax returns on a consolidated basis. In addition, certain state jurisdictions are filed on a separate company basis by the Company or its subsidiaries.

The Company recognizes and measures income tax benefits using a two-step model: 1) a tax position must be more likely than not to be sustained based solely on its technical merits in order to be recognized; and 2) the benefit must be measured as the largest dollar amount of that position that is more likely than not to be sustained upon settlement. The difference between the benefit recognized for a tax position in this model and the tax benefit claimed on a tax return is treated as an unrecognized tax benefit. The Company recognizes income tax related interest and penalties in income tax expense.

Earnings Per Share Basic earnings per share is computed by dividing net income by the weighted average number of common shares outstanding. Diluted earnings per share is computed by dividing net income by the sum of the weighted average number of common shares outstanding and the weighted average number of potential common shares outstanding.

Stock-Based Compensation The Company follows FASB ASC 718 - *Accounting for Stock Options and Other Stock-based Compensation* ("ASC 718"), which requires that all stock-based compensation be recognized as an expense in the financial statements and that such cost be measured at the fair value of the award. FASB ASC 718 also requires that excess tax benefits related to stock option exercises and restricted stock awards be reflected as financing cash inflows instead of operating cash inflows.

Pension Plans The amounts recognized in the consolidated financial statements related to pension are determined from actuarial valuations. Inherent in these valuations are assumptions including expected return on plan assets, discount rates at which the liabilities could be settled at December 31, 2018, rate of increase in future compensation levels and mortality rates. These assumptions are updated annually and are disclosed in Note 10. The Company follows FASB ASC 715 - *Compensation – Retirement Benefits* ("ASC 715"), which requires companies to recognize the overfunded or underfunded status of a defined benefit postretirement plan as an asset or liability in its consolidated balance sheet and to recognize changes in that funded status in the year in which the changes occur through comprehensive income. The funded status is measured as the difference between the fair value of the plan assets and the projected benefit obligation as of the date of its fiscal year-end.

Fair Value Measurements The Company follows the provisions of FASB ASC 820 - *Fair Value Measurements and Disclosures*, which defines fair value, establishes a framework for measuring fair value in GAAP, and outlines disclosures about fair value measurements. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an 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. A three-level hierarchy for valuation techniques is used to measure financial assets and financial liabilities at fair value. This hierarchy is based on whether the valuation inputs are observable or unobservable. Financial instrument valuations are considered Level 1 when they are based on quoted prices in active markets for identical assets or liabilities. Level 2 financial instrument valuations use quoted prices for 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. Financial instrument valuations are considered Level 3 when they are determined using pricing models, discounted cash flow methodologies or similar techniques and at least one significant model assumption or input is unobservable, and when determination of the fair value requires significant management judgment or estimation. The Company records securities available for sale at their fair values on a recurring basis using Level 2 valuations. Additionally, the Company records impaired loans and other real estate owned at their fair value on a nonrecurring basis. The nonrecurring fair value adjustments typically involve application of lower-of-cost-or-market accounting or impairment write-downs of individual assets.

Impact of New and Not Yet Adopted Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update ("ASU") No. 2014-09 – *Revenue from Contracts with Customers*. The ASU supersedes revenue recognition requirements in Topic 605, Revenue Recognition, including most industry-specific revenue recognition guidance in the FASB Accounting Standards Codification ("ASC"). The core principle of the new guidance 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. The guidance identifies specific steps that entities should apply in order to achieve this principle. Under the ASU, the amendments are effective for interim and annual periods beginning January 1, 2018 and must be applied retrospectively.

On January 1, 2018, the Company adopted Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 606, *Revenue from Contracts with Customers* ("FASB ASC 606"), and selected the modified retrospective transition method. The adoption of this new standard did not impact the Company's results of operations or balance sheet and there was no cumulative effect of initially applying this new revenue standard to the opening balance of retained earnings. Since interest income on loans and securities are both excluded from this topic, a significant portion of the Company's revenues are not subject to the new guidance. The services that fall within the scope of FASB ASC 606 are presented within fee revenue and other income in the Consolidated Statements of Income and are recognized as revenue as the obligation to the customer is satisfied. Services within the scope of FASB ASC 606 include invoice processing and payment fees, bank service fees, and other real estate owned ("OREO").

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In February 2016, the FASB issued Accounting Standards Update ("ASU") No. 2016-02 *Leases (ASC Topic 842)*. The ASU improves financial reporting about leasing transactions. The ASU affects all companies and other organizations that lease assets such as real estate, airplanes, and manufacturing equipment. Consistent with current GAAP, the recognition, measurement, and presentation of expenses and cash flows arising from a lease by a lessee primarily will depend on its classification as a finance or operating lease. However, unlike current GAAP—which requires only capital leases to be recognized on the balance sheet—the new ASU will require both types of leases to be recognized on the balance sheet. The ASU also will require disclosures to help investors and other financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. These disclosures include qualitative and quantitative requirements, providing additional information about the amounts recorded in the financial statements. The ASU on leases will take effect for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. A third-party vendor solution has been selected to assist in the application of ASU 2016-02. The Company will adopt this ASU using a prospective transition approach, which applies the provisions of the new guidance at the effective date without adjusting the comparative periods presented. The adoption of this ASU is expected to add assets and liabilities of approximately $9-11 million to the Company's balance sheet.

In June 2016, the FASB issued ASU No. 2016-13 - Financial Instruments – *Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. The ASU requires measurement and recognition of expected credit losses for financial assets held. Under this standard, it will be required to hold an allowance equal to the expected life-of-loan losses on the loan portfolio. The standard is effective for fiscal periods beginning after December 15, 2019. The Company expects to recognize a one-time cumulative effect adjustment to the allowance for loan losses as of the beginning of the first reporting period in which the new standard is effective, but cannot yet determine the magnitude of any such one-time adjustment or the overall impact of the new guidance on the consolidated financial statements.

Note 2
Capital Requirements and Regulatory Restrictions

The Company and the Bank are subject to various regulatory capital requirements administered by the federal banking agencies. Failure to meet minimum capital requirements can result in certain mandatory, and possibly additional discretionary actions by regulators that, if undertaken, could have a direct material effect on the Company's consolidated financial statements. Under capital adequacy guidelines, the Company and the Bank must meet specific capital guidelines that involve quantitative measures of assets, liabilities and certain off-balance sheet items as calculated under regulatory accounting practices. The Company's and the Bank's capital amounts and classifications are also subject to qualitative judgments by the regulators about components, risk weightings and other factors.

Quantitative measures established by regulators to ensure capital adequacy require the Company and the Bank to maintain minimum amounts and ratios of total and Tier I capital and common equity Tier I capital to risk-weighted assets, and of Tier I capital to average assets. Management believes that as of December 31, 2018 and 2017, the Company and the Bank met all capital adequacy requirements to which they are subject.

Effective July 2, 2013, the Federal Reserve Board approved final rules known as the "Basel III Capital Rules" that substantially revised the risk-based capital and leverage capital requirements applicable to bank holding companies and depository institutions, including the Company and the Bank. The Basel III Capital Rules implement aspects of the Basel III capital framework agreed upon by the Basel Committee and incorporate changes required by the Dodd-Frank Wall Street Reform and Consumer Protection Act. Among other things, the Basel III Capital Rules establish stricter capital requirements and calculation standards, as well as more restrictive risk weightings for certain loans and facilities. The Basel III Capital Rules were effective for the Company and the Bank on January 1, 2015, subject to a phase-in period that ended on December 31, 2018.

The Bank is also subject to the regulatory framework for prompt corrective action. As of December 31, 2018, the most recent notification from the regulatory agencies categorized the Bank as well-capitalized. To be categorized as well-capitalized, the Bank must maintain minimum total risk-based, common equity Tier I risk-based, Tier I risk-based, and Tier I leverage ratios as set forth in the table below. There are no conditions or events since that notification that management believes have changed the Bank's category.

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The Company has traditionally paid a quarterly cash dividend to its shareholders. Subsidiary dividends can be a significant source of funds for payment of dividends by the Company to its shareholders. Banking regulations may limit the amount of dividends that may be paid. Approval by regulatory authorities is required if the effect of dividends declared would cause the regulatory capital of the Bank to fall below specified minimum levels. Approval is also required if dividends declared exceed the net profits for that year combined with the retained net profits for the preceding two years. Under the foregoing dividend restrictions and while maintaining its "well capitalized" status, at December 31, 2018, unappropriated retained earnings of $37,150,000 were available at the Bank for the declaration of dividends to the Company without prior approval from regulatory authorities. In addition to regulatory requirements and considerations, any payment of dividends in the future will depend on the Company's earnings, financial condition and other factors considered relevant by the Company's Board of Directors.

There were no restricted funds on deposit used to meet regulatory reserve requirements at December 31, 2018 and 2017.

The Company's and the Bank's actual and required capital amounts and ratios are as follows:

(In thousands)	Actual Amount	Actual Ratio	Capital Requirements Amount	Capital Requirements Ratio	Requirement to be Well-Capitalized Amount	Requirement to be Well-Capitalized Ratio
At December 31, 2018						
Total capital (to risk-weighted assets)						
Cass Information Systems, Inc.	$ 244,660	21.38%	$ 91,550	8.00%	$ N/A	N/A %
Cass Commercial Bank	137,894	18.31	60,257	8.00	75,321	10.00
Common Equity Tier I Capital (to risk-weighted assets)						
Cass Information Systems, Inc.	234,435	20.49	51,497	4.50	N/A	N/A
Cass Commercial Bank	130,037	17.26	33,895	4.50	48,959	6.50
Tier I capital (to risk-weighted assets)						
Cass Information Systems, Inc.	234,435	20.49	68,662	6.00	N/A	N/A
Cass Commercial Bank	130,037	17.26	45,193	6.00	60,257	8.00
Tier I capital (to average assets)						
Cass Information Systems, Inc.	234,435	13.89	67,500	4.00	N/A	N/A
Cass Commercial Bank	130,037	15.35	33,884	4.00	42,354	5.00
At December 31, 2017						
Total capital (to risk-weighted assets)						
Cass Information Systems, Inc.	$ 234,389	22.53%	$ 83,233	8.00%	$ N/A	N/A %
Cass Commercial Bank	122,440	17.01	57,568	8.00	71,960	10.00
Common Equity Tier I Capital (to risk-weighted assets)						
Cass Information Systems, Inc.	224,184	21.55	46,819	4.50	N/A	N/A
Cass Commercial Bank	114,603	15.93	32,382	4.50	46,774	6.50
Tier I capital (to risk-weighted assets)						
Cass Information Systems, Inc.	224,184	21.55	62,425	6.00	N/A	N/A
Cass Commercial Bank	114,603	15.93	43,176	6.00	57,568	8.00
Tier I capital (to average assets)						
Cass Information Systems, Inc.	224,184	13.87	64,649	4.00	N/A	N/A
Cass Commercial Bank	114,603	14.99	30,581	4.00	38,227	5.00

Note 3
Investment in Securities

Investment securities available-for-sale are recorded at fair value on a recurring basis. The Company's investment securities available-for-sale at December 31, 2018 and 2017 are measured at fair value using Level 2 valuations. The market evaluation utilizes several sources which include "observable inputs" rather than "significant unobservable inputs" and therefore falls into the Level 2 category. The table below presents the balances of securities available-for-sale measured at fair value on a recurring basis. The amortized cost, gross unrealized gains, gross unrealized losses and fair value of debt and equity securities are summarized as follows:

	December 31, 2018			
(In thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
State and political subdivisions	$ 332,732	$ 3,791	$ 1,806	$ 334,717
U.S. government agencies	106,153	86	1,417	104,822

Certificates of deposit		1,995		—		—		1,995
Total	$	440,880	$	3,877	$	3,223	$	441,534

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	December 31, 2017			
(In thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
State and political subdivisions	$ 408,165	$ 9,528	$ 661	$ 417,032
U.S. government agencies	46,222	—	722	45,500
Certificates of deposit	7,991	—	—	7,991
Total	$ 462,378	$ 9,528	$ 1,383	$ 470,523

The fair values of securities with unrealized losses are as follows:

	December 31, 2018					
	Less than 12 months		12 months or more		Total	
(In thousands)	Estimated Fair Value	Unrealized Losses	Estimated Fair Value	Unrealized Losses	Estimated Fair value	Unrealized Losses
State and political subdivisions	$ 91,248	$ 556	$ 60,546	$ 1,250	$ 151,794	$ 1,806
U.S. government agencies	30,409	130	38,005	1,287	68,414	1,417
Certificates of deposit	—	—	—	—	—	—
Total	$ 121,657	$ 686	$ 98,551	$ 2,537	$ 220,208	$ 3,223

	December 31, 2017					
	Less than 12 months		12 months or more		Total	
(In thousands)	Estimated Fair Value	Unrealized Losses	Estimated Fair Value	Unrealized Losses	Estimated Fair value	Unrealized Losses
State and political subdivisions	$ 34,755	$ 123	$ 31,251	$ 538	$ 66,006	$ 661
U.S. government agencies	34,183	376	11,317	346	45,500	722
Certificates of deposit	—	—	—	—	—	—
Total	$ 68,938	$ 499	$ 42,568	$ 884	$ 111,506	$ 1,383

There were 136 securities, or 43% of the total (61 greater than 12 months), in an unrealized loss position as of December 31, 2018 compared to 64 securities, or 17% (24 greater than 12 months), in an unrealized loss position as of December 31, 2017. All unrealized losses are reviewed to determine whether the losses are other than temporary. Management believes that all unrealized losses are temporary since they are market driven, the Company does not have the intent to sell the security, and it is more likely than not that the Company will not be required to sell prior to recovery of the amortized basis.

The amortized cost and fair value of debt and equity securities by contractual maturity are shown in the following table. Expected maturities may differ from contractual maturities because borrowers have the right to prepay obligations with or without prepayment penalties.

	December 31, 2018	
(In thousands)	Amortized Cost	Fair Value
Due in 1 year or less	$ 7,956	$ 7,987
Due after 1 year through 5 years	125,746	126,252
Due after 5 years through 10 years	242,119	244,118
Due after 10 years	65,059	63,177
No stated maturity	—	—
Total	$ 440,880	$ 441,534

The premium related to the purchase of state and political subdivisions was $6,857,000 and $7,147,000 in 2018 and 2017, respectively.

The amortized cost of debt securities pledged to secure public deposits, securities sold under agreements to repurchase and for other purposes at December 31, 2018 was $0 and at December 31, 2017 was $3,750,000.

Proceeds from sales of debt securities classified as available-for-sale were $58,520,000 in 2018, $0 in 2017, and $21,491,000 in 2016. Gross realized gains on the sales in 2018, 2017 and 2016 were $180,000, $0, and $387,000, respectively. Gross realized losses on sales in 2018, 2017 and 2016 were $222,000, $0, and $0, respectively.

Loans
Note 4

The Company originates commercial, industrial and real estate loans to businesses and faith-based ministries throughout the metropolitan St. Louis, Missouri area, Orange County, California, Colorado Springs, Colorado and other selected cities in the United States. The Company does not have any particular concentration of credit in any one economic sector; however, a substantial portion of the commercial and industrial loans is extended to privately-held commercial companies and franchises in these market areas and are generally secured by the assets of the business. The Company also has a substantial portion of real estate loans secured by mortgages that are extended to faith-based ministries in its market area and selected cities in the United States.

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A summary of loan categories is as follows:

	December 31,	
(In thousands)	**2018**	**2017**
Commercial and industrial	$ 277,091	$ 236,394
Real estate		
Commercial:		
Mortgage	95,605	94,675
Construction	11,858	9,359
Faith-based:		
Mortgage	316,147	316,073
Construction	20,576	25,948
Industrial Revenue Bonds	—	3,374
Other	310	408
Total loans	$ 721,587	$ 686,231

The following table presents the aging of loans by loan categories at December 31, 2018:

	Performing			Nonperforming		
(In thousands)	**Current**	**30-59 Days**	**60-89 Days**	**90 Days and Over**	**Non-accrual**	**Total Loans**
Commercial and industrial	$ 277,091	$ —	$ —	$ —	$ —	$ 277,091
Real estate						
Commercial:						
Mortgage	95,605	—	—	—	—	95,605
Construction	11,858	—	—	—	—	11,858
Faith-based:						
Mortgage	316,147	—	—	—	—	316,147
Construction	20,576	—	—	—	—	20,576
Industrial Revenue Bonds	—	—	—	—	—	—
Other	310	—	—	—	—	310
Total	$ 721,587	$ —	$ —	$ —	$ —	$ 721,587

The following table presents the aging of loans by loan categories at December 31, 2017:

	Performing			Nonperforming		
(In thousands)	**Current**	**30-59 Days**	**60-89 Days**	**90 Days and Over**	**Non-accrual**	**Total Loans**
Commercial and industrial	$ 236,394	$ —	$ —	$ —	$ —	$ 236,394
Real estate						
Commercial:						
Mortgage	94,675	—	—	—	—	94,675
Construction	9,359	—	—	—	—	9,359
Faith-based:						
Mortgage	316,073	—	—	—	—	316,073
Construction	25,948	—	—	—	—	25,948
Industrial Revenue Bonds	3,374	—	—	—	—	3,374
Other	408	—	—	—	—	408
Total	$ 686,231	$ —	$ —	$ —	$ —	$ 686,231

The following table presents the credit exposure of the loan portfolio by internally assigned credit grade as of December 31, 2018:

(In thousands)	Loans Subject to Normal Monitoring[1]	Performing Loans Subject to Special Monitoring[2]	Nonperforming Loans Subject to Special Monitoring[2]	Total Loans
Commercial and industrial	$ 275,308	$ 1,783	$ —	$ 277,091
Real estate				
Commercial:				
Mortgage	95,447	158	—	95,605
Construction	11,858	—	—	11,858
Faith-based:				
Mortgage	314,940	1,207	—	316,147
Construction	20,576	—	—	20,576
Industrial Revenue Bonds	—	—	—	—
Other	310	—	—	310
Total	$ 718,439	$ 3,148	$ —	$ 721,587

(1) Loans subject to normal monitoring involve borrowers of acceptable-to-strong credit quality and risk, who have the apparent ability to satisfy their loan obligation.

(2) Loans subject to special monitoring possess some credit deficiency or potential weakness which requires a high level of management attention.

The following table presents the credit exposure of the loan portfolio by internally assigned credit grade as of December 31, 2017:

(In thousands)	Loans Subject to Normal Monitoring[1]	Performing Loans Subject to Special Monitoring[2]	Nonperforming Loans Subject to Special Monitoring[2]	Total Loans
Commercial and industrial	$ 234,271	$ 2,123	$ —	$ 236,394
Real estate				
Commercial:				
Mortgage	93,788	887	—	94,675
Construction	9,359	—	—	9,359
Faith-based:				
Mortgage	316,042	31	—	316,073
Construction	25,948	—	—	25,948
Industrial Revenue Bonds	3,374	—	—	3,374
Other	408	—	—	408
Total	$ 683,190	$ 3,041	$ —	$ 686,231

(1) Loans subject to normal monitoring involve borrowers of acceptable-to-strong credit quality and risk, who have the apparent ability to satisfy their loan obligation.

(2) Loans subject to special monitoring possess some credit deficiency or potential weakness which requires a high level of management attention.

Impaired loans consist primarily of nonaccrual loans, loans greater than 90 days past due and still accruing interest and troubled debt restructurings, both performing and non-performing. Troubled debt restructuring involves the granting of a concession to a borrower experiencing financial difficulty resulting in the modification of terms of the loan, such as changes in payment schedule or interest rate. There was no ALLL related to impaired loans at both December 31, 2018 and 2017. There were no non-accrual loans at December 31, 2018 and 2017. There were no loans delinquent 90 days or more and still accruing interest at both December 31, 2018 and 2017. At December 31, 2018 and 2017, there were no loans classified as troubled debt restructuring. The average balances of impaired loans during 2018, 2017 and 2016 were $0, $166,000, and $333,000, respectively. Income that would have been recognized on non-accrual loans under the original terms of the contract was $0, $24,000, and $66,000 for 2018, 2017 and 2016, respectively. Income that was recognized on nonaccrual loans was $0, $17,000, and $47,000 for 2018, 2017 and 2016 respectively. There were no foreclosed assets as of December 31, 2018 or 2017.

The Company does not record loans at fair value on a recurring basis. Once a loan is identified as impaired, management measures impairment in accordance with FASB ASC 310. At December 31, 2018 and 2017, there were no impaired loans. The fair value of the collateral is based upon an observable market price or current appraised value and therefore, the Company classifies these assets as nonrecurring Level 3.

A summary of the activity in the allowance for loan losses for the period ended December 31, 2018 is as follows:

(In thousands)	December 31, 2017	Charge-Offs	Recoveries	Provision	December 31, 2018
Commercial and industrial	$ 3,652	$ —	$ 20	$ 507	$ 4,179
Real estate					
Commercial:					
Mortgage	1,394	—	—	23	1,417
Construction	70	—	—	19	89
Faith-based:					
Mortgage	3,962	—	—	(1)	3,961
Construction	196	—	—	(41)	155
Industrial Revenue Bond	52	—	—	(52)	—
Other	879	—	—	(455)	424
Total	$ 10,205	$ —	$ 20	$ —	$ 10,225

A summary of the activity in the allowance for loan losses for the period ended December 31, 2017 is as follows:

(In thousands)	December 31, 2016	Charge-Offs	Recoveries	Provision	December 31, 2017
Commercial and industrial	$ 3,261	$ —	$ 30	$ 361	$ 3,652
Real estate					
Commercial:					
Mortgage	1,662	—	—	(268)	1,394
Construction	47	—	—	23	70
Faith-based:					
Mortgage	4,027	—	—	(65)	3,962
Construction	85	—	—	111	196
Industrial Revenue Bond	101	—	—	(49)	52
Other	992	—	—	(113)	879
Total	$ 10,175	$ —	$ 30	$ —	$ 10,205

As of December 31, 2018, there were loans totaling $278,153 to affiliates of executive officers or directors. There were no loans to affiliates of executive officers or directors at December 31, 2017.

Note 5
Premises and Equipment

A summary of premises and equipment is as follows:

(In thousands)	December 31, 2018	2017
Land	$ 873	$ 873
Buildings	14,684	13,386
Leasehold improvements	2,537	2,120
Furniture, fixtures and equipment	16,332	14,801
Purchased software	5,043	4,819
Internally developed software	17,428	16,485
	56,897	52,484
Less accumulated depreciation	34,866	30,898
Total	$ 22,031	$ 21,586

Total depreciation charged to expense in 2018, 2017 and 2016 amounted to $3,954,000, $3,624,000 and $3,245,000, respectively.

The Company and its subsidiaries lease various premises under operating lease agreements which expire at various dates through 2024. Rental expense for 2018, 2017 and 2016 was $1,648,000, $1,499,000 and $1,397,000, respectively. The following is a schedule, by year, of future minimum rental payments required under operating leases that have initial or remaining non-cancelable lease terms in excess of one year as of December 31, 2018:

(In thousands)	Amount
2019	1,639
2020	1,902
2021	1,769
2022	1,646
2023	724
2024+	3,040
Total	$ 10,720

Note 6
Acquired Intangible Assets

The Company accounts for intangible assets in accordance with FASB ASC 350 - *Goodwill and Other Intangible Assets* (“ASC 350”), which requires that intangibles with indefinite useful lives be tested annually for impairment and those with finite useful lives be amortized over their useful lives.

Details of the Company’s intangible assets are as follows:

	December 31, 2018		December 31, 2017	
(In thousands)	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Assets eligible for amortization:				
Customer lists	$ 4,288	$ (3,071)	$ 4,288	$ (2,702)
Patent	72	(16)	72	(12)
Non-compete agreements	332	(326)	332	(291)
Software	234	(234)	234	(234)
Other	500	(225)	500	(191)
Unamortized intangible assets:				
Goodwill [(1)]	12,796	(227)	12,796	(227)
Total intangible assets	$ 18,222	$ (4,099)	$ 18,222	$ (3,657)

(1) Amortization through December 31, 2001 prior to adoption of FASB ASC 350.

The customer lists are amortized over seven and ten years; the patents over 18 years, the non-compete agreements over two and five years, software over three years and other intangible assets over 15 years. Amortization of intangible assets amounted to $442,000, $427,000 and

$408,000 for the years ended December 31, 2018, 2017 and 2016, respectively. Estimated future amortization of intangibles is $412,000 in 2019, $406,000 in both 2020 and 2021 and $88,000 in both 2022 and 2023.

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Note 7
Interest-Bearing Deposits

Interest-bearing deposits consist of the following:

(In thousands)	December 31, 2018	2017
Interest-bearing demand deposits	$ 322,709	$ 332,881
Savings deposits	13,502	11,168
Time deposits:		
Less than $100	4,862	2,658
$100 to less than $250	51,658	33,385
$250 or more	15,937	16,455
Total	$ 408,668	$ 396,547
Weighted average interest rate	1.00 %	.56 %

Interest on deposits consists of the following:

(In thousands)	December 31, 2018	2017	2016
Interest-bearing demand deposits	$ 2,832	$ 1,611	$ 1,387
Savings deposits	109	79	100
Time deposits:			
Less than $100	433	234	274
$100 to less than $250	152	114	191
$250 or more	210	149	77
Total	$ 3,736	$ 2,187	$ 2,029

The scheduled maturities of time deposits are summarized as follows:

	December 31, 2018		2017	
(In thousands)	Amount	Percent of Total	Amount	Percent of Total
Due within:				
One year	$ 51,154	70.6%	$ 48,370	92.1%
Two years	18,262	25.2	281	0.5
Three years	140	0.2	2,383	4.5
Four years	983	1.4	25	0.1
Five years	1,918	2.6	1,439	2.8
Total	$ 72,457	100.0%	$ 52,498	100.0%

Note 8
Unused Available Lines of Credit

As of December 31, 2018, the Bank had unsecured lines of credit at correspondent banks to purchase federal funds up to a maximum of $83,000,000 at the following banks: US Bank, $20,000,000; UMB Bank $20,000,000; Wells Fargo Bank, $15,000,000; PNC Bank, $12,000,000; Frost National Bank, $10,000,000; and JPM Chase Bank, $6,000,000. As of December 31, 2018, the Bank had secured lines of credit with the Federal Home Loan Bank of $193,460,000 collateralized by commercial mortgage loans. At December 31, 2018, the Company had lines of credit from UMB Bank of $50,000,000 and First Tennessee Bank of $50,000,000 collateralized by state and political subdivision securities. There were no amounts outstanding under any of the lines of credit discussed above at December 31, 2018 or 2017.

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Note 9
Common Stock and Earnings per Share

The table below shows activity in the outstanding shares of the Company’s common stock during 2018.

	2018
Shares outstanding at January 1	12,286,896
20% stock dividend paid on December 14, 2018	2,457,484
Issuance of common stock:	
Employee restricted stock grants	9,530
Employee SARs exercised	12,048
Directors’ compensation	9,526
Shares repurchased	(163,634)
Shares forfeited	(564)
Shares outstanding at December 31	14,611,286

Basic earnings per share is computed by dividing net income by the weighted average number of common shares outstanding. Diluted earnings per share is computed by dividing net income by the sum of the weighted average number of common shares outstanding and the weighted average number of potential common shares outstanding. Under the treasury stock method, stock appreciation rights (“SARs”) are dilutive when the average market price of the Company’s common stock, combined with the effect of any unamortized compensation expense, exceeds the SAR price during a period. Anti-dilutive shares are those SARs with prices in excess of the current market value.

The calculations of basic and diluted earnings per share are as follows:

	December 31,		
(In thousands except share and per share data)	2018	2017	2016
Basic:			
Net income	$ 30,268	$ 25,014	$ 24,348
Weighted average common shares outstanding	14,675,136	14,700,557	14,718,228
Basic earnings per share	$ 2.06	$ 1.70	$ 1.65
Diluted:			
Net income	$ 30,268	$ 25,014	$ 24,348
Weighted average common shares outstanding	14,675,136	14,700,558	14,718,228
Effect of dilutive restricted stock, performance based restricted stock (“PBRS”), and SARs	239,065	215,332	206,878
Weighted average common shares outstanding assuming dilution	14,914,202	14,915,890	14,925,106
Diluted earnings per share	$ 2.03	$ 1.68	$ 1.63

All share and per share data have been restated to give effect to the 20% stock dividend that was paid on December 14, 2018

Note 10
Employee Benefit Plans

Defined Benefit Plan
The Company has a noncontributory defined-benefit pension plan (the “Plan”), which covers most of its employees. Effective December 31, 2016, the Plan was closed to all new participants. The Company accrues and makes contributions designed to fund normal service costs on a current basis using the projected unit credit with service proration method to amortize prior service costs arising from improvements in pension benefits and qualifying service prior to the establishment of the Plan over a period of approximately 30 years.

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A summary of the activity in the Plan's projected benefit obligation, assets, funded status and amounts recognized in the Company's consolidated balance sheets is as follows:

(In thousands)	**2018**	**2017**
Projected benefit obligation:		
Balance, January 1	$ 98,790	$ 85,551
Service cost	4,017	3,733
Interest cost	3,703	3,621
Actuarial (gain) loss	(7,768)	7,916
Benefits paid	(2,341)	(2,031)
Balance, December 31	$ 96,401	$ 98,790
Plan assets:		
Fair value, January 1	$ 81,427	$ 73,168
Actual return	(4,506)	10,290
Employer contribution		
Benefits paid	(2,341)	(2,031)
Fair value, December 31	$ 74,580	$ 81,427
Funded status:		
Accrued pension liability	$ (21,821)	$ (17,363)

The following represent the major assumptions used to determine the projected benefit obligation of the Plan. For 2018, 2017 and 2016, the Plan's expected benefit cash flows were discounted using the Citibank Above Median Curve. For 2018, the RP-2014 Mortality Table and the MP-2018 Mortality Improvement Table were used. For 2017, the RP-2014 Mortality Table and MP-2017 Mortality Improvement Table were used. For 2016, the RP-2014 Mortality Table and MP-2016 Mortality Improvement Table were used.

	2018	**2017**	**2016**
Weighted average discount rate	4.30%	3.75%	4.25%
Rate of increase in compensation levels	(a)	(a)	(a)

(a) 6.0% graded down to 3.25% over the first seven years of service.

The accumulated benefit obligation was $83,724,000 and $85,236,000 as of December 31, 2018 and 2017, respectively. The Company does not expect to make a contribution to the Plan in 2019. The following pension benefit payments, which reflect expected future service, as appropriate, are expected to be paid by the Plan:

	Amount
2019	$ 2,893,000
2020	3,099,000
2021	3,363,000
2022	3,769,000
2023	4,196,000
2024-2028	25,643,000

The Plan's pension cost included the following components:

	For the Year Ended December 31,		
(In thousands)	**2018**	**2017**	**2016**
Service cost – benefits earned during the year	$ 4,017	$ 3,733	$ 3,559
Interest cost on projected benefit obligations	3,703	3,621	3,505
Expected return on plan assets	(5,202)	(4,681)	(4,734)
Net amortization and deferral	1,522	1,382	1,259
Net periodic pension cost	$ 4,040	$ 4,055	$ 3,589

The following represent the major assumptions used to determine the net pension cost of the Plan:

	2018	**2017**	**2016**
Weighted average discount rate	3.75%	4.25%	4.50%
Rate of increase in compensation levels	(a)	(a)	(a)
Expected long-term rate of return on assets	6.50%	6.50%	6.75%

(a) 6.0% graded down to 3.25% over the first seven years of service

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For 2018, the RP-2014 Mortality Table and the MP-2017 Mortality Improvement Table were used. For 2017, the RP-2014 Mortality Table and the MP-2016 Mortality Improvement Table were used. For 2016, the RP-2014 Mortality Table and the MP-2015 Mortality Improvement Table were used.

The investment objective for the Plan is to maximize total return with a tolerance for average risk. Asset allocation is a balance between fixed income and equity investments, with a target allocation of approximately 51% fixed income, 19% U.S. equity and 30% non-U.S. equity. Due to volatility in the market, this target allocation is not always desirable and asset allocations can fluctuate between acceptable ranges. The fixed income component is invested in pooled investment grade securities. The equity components are invested in pooled large cap, small/mid cap and non-U.S. stocks. The expected one-year nominal returns and annual standard deviations are shown by asset class below:

Asset Class	% of Total Portfolio	One-Year Nominal Return	Annual Standard Deviation
Core Fixed Income	51%	4.44%	3.90%
Large Cap U.S. Equities	14%	7.02%	15.10%
Small Cap U.S. Equities	5%	8.04%	18.75%
International (Developed)	25%	8.19%	17.36%
International (Emerging)	5%	10.45%	25.35%

Applying appropriate correlation factors between each of the asset classes the long-term rate of return on assets is estimated to be 6.50%.

A summary of the fair value measurements by type of asset is as follows:

	Fair Value Measurements as of December 31,					
	2018			2017		
(In thousands)	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)
Cash	$ 423	$ 423	$ —	$ 374	$ 374	$ —
Equity securities						
U.S. Small/Mid Cap Growth	3,405	—	3,405	4,111	—	4,111
Non-U. S. Core	18,398	—	18,398	21,065	—	21,065
U.S. Large Cap Passive	10,471	—	10,471	11,717	—	11,717
Emerging Markets	3,217	—	3,217	4,052	—	4,052
Fixed Income						
U.S. Core	10,609	—	10,609	11,284	—	11,284
U.S. Passive	23,827	—	23,827	24,345	—	24,345
Opportunistic	4,230	—	4,230	4,479	—	4,479
Total	$ 74,580	$ 423	$ 74,157	$ 81,427	$ 374	$ 81,053

Supplemental Executive Retirement Plan

The Company also has an unfunded supplemental executive retirement plan ("SERP") which covers key executives of the Company whose benefits are limited by the Internal Revenue Service under the Company's qualified retirement plan. The SERP is a noncontributory plan in which the Company's subsidiaries make accruals designed to fund normal service costs on a current basis using the same method and criteria as the Plan.

A summary of the activity in the SERP's projected benefit obligation, funded status and amounts recognized in the Company's consolidated balance sheets is as follows:

	December 31,	
(In thousands)	2018	2017
Benefit obligation:		
Balance, January 1	$ 10,094	$ 9,132
Service cost	92	143

Interest cost	348	360
Benefits paid	(260)	(247)
Actuarial (gain) loss	(177)	706
Balance, December 31	$ 10,097	$ 10,094

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The following represent the major assumptions used to determine the projected benefit obligation of the SERP. For 2018, 2017 and 2016, the SERP's expected benefit cash flows were discounted using the Citigroup Above Median Curve.

	2018	2017	2016
Weighted average discount rate	4.10%	3.50%	4.00%
Rate of increase in compensation levels	(a)	(a)	(a)

(a) 6.00% graded down to 3.25% over the first seven years of service.

The accumulated benefit obligation was $8,830,000 and $8,734,000 as of December 31, 2018 and 2017, respectively. Since this is an unfunded plan, there are no plan assets. Benefits paid were $260,000 in 2018, and $247,000 in both 2017 and 2016. Expected future benefits payable by the Company over the next ten years are as follows:

	Amount
2019	$ 313,000
2020	312,000
2021	372,000
2022	749,000
2023	817,000
2024-2028	4,014,000

The SERP's pension cost included the following components:

	For the Year Ended December 31,		
(In thousands)	2018	2017	2016
Service cost – benefits earned during the year	$ 92	$ 143	$ 133
Interest cost on projected benefit obligations	348	360	367
Net amortization and deferral	581	324	295
Net periodic pension cost	$ 1,021	$ 827	$ 795

The pretax amounts in accumulated other comprehensive loss as of December 31 were as follows:

	The Plan		SERP	
(In thousands)	2018	2017	2018	2017
Prior service cost	$ —	$ —	$ —	$ —
Net actuarial loss	23,580	23,160	1,629	2,388
Total	$ 23,580	$ 23,160	$ 1,629	$ 2,388

The estimated pretax prior service cost and net actuarial loss in accumulated other comprehensive loss at December 31, 2018 expected to be recognized as components of net periodic benefit cost in 2019 for the Plan are $0 and $1,634,000, respectively. The estimated pretax prior service cost and net actuarial loss in accumulated other comprehensive loss at December 31, 2018 expected to be recognized as components of net periodic benefit cost in 2019 for the SERP are $0 and $277,000, respectively.

The Company also maintains a noncontributory profit sharing program, which covers most of its employees. Employer contributions are calculated based upon formulas which relate to current operating results and other factors. Profit sharing expense recognized in the consolidated statements of income in 2018, 2017 and 2016 was $6,810,000, $5,799,000, and $5,367,000, respectively.

The Company also sponsors a defined contribution 401(k) plan to provide additional retirement benefits to substantially all employees. Contributions under the 401(k) plan for 2018, 2017 and 2016 were $1,109,000, $925,000, and $658,000, respectively.

Note 11
Stock-based Compensation

The Amended and Restated Omnibus Stock and Performance Compensation Plan (the "Omnibus Plan") provides incentive opportunities for key employees and non-employee directors and to align the personal financial interests of such individuals with those of the Company's shareholders. The Omnibus Plan permits the issuance of up to 1,500,000 shares of the Company's common stock in the form of stock options, SARs, restricted stock, restricted stock units and performance awards.

All share and per share data have been restated to give effect to the 20% stock dividend that was paid on December 14, 2018.

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Restricted Stock

Restricted shares granted prior to April 16, 2013 are amortized to expense over the three-year vesting period. Beginning on April 16, 2013, restricted shares granted to Company employees are amortized to expense over the three-year annual vesting period whereas restricted shares granted to members of the Board of Directors are amortized to expense over a one-year service period, with the exception of those shares granted in lieu of cash payment for retainer fees which are expensed in the period earned. Beginning on February 2, 2017, restricted shares granted to Company employees are amortized to expense over the three-year cliff vesting period.

Changes in restricted shares outstanding for the year ended December 31, 2018 were as follows:

	Shares	Weighted Average Grant Date Fair Value
Balance at December 31, 2017	93,775	$41.92
Granted	35,000	49.79
Vested	(28,487)	39.03
Forfeited	(564)	46.70
Balance at December 31, 2018	99,724	$45.48

During 2017 and 2016, 31,277 and 47,779 shares, respectively, were granted with weighted average per share market values at date of grant of $49.55 in 2017 and $38.13 in 2016. The fair value of such shares are based on the market price on the date of grant. Amortization of the restricted stock bonus awards totaled $1,571,000 for 2018, $1,743,000 for 2017 and $1,712,000 for 2016. As of December 31, 2018, the total unrecognized compensation expense related to non-vested restricted stock awards was $1,345,000 and the related weighted average period over which it is expected to be recognized is approximately 0.75 years. The total fair value of shares vested during the years ended December 2018, 2017, and 2016 was $1,112,000, $1,389,000, and $1,500,000, respectively.

Performance-Based Restricted Stock

In February of 2017, the Company granted three-year PBRS awards which are contingent upon the Company's achievement of pre-established financial goals over the period from January 1, 2017 through December 31, 2019. The PBRS awards cliff vest on the three year anniversary of their grant date at levels ranging from 0% to 150% of the target opportunity based on the actual achievement of financial goals for the three-year performance period. The aggregate target number of PBRS shares granted was 30,388 with an average grant date fair value of $49.33 per share. The 2018 expense related to these grants totaled $690,000 and is based on the grant date fair value of the awards and the Company's achievement of 132% of the target financial goals. The estimated expense for 2018 and each future period through the vesting date is subject to prospective adjustment based upon changes in the expected achievement of the financial goals.

In each of February and July of 2018, the Company granted three-year PBRS awards which are contingent upon the Company's achievement of pre-established financial goals over the period from January 1, 2018 through December 31, 2020. The PBRS awards cliff vest on the three-year anniversary of their grant date at levels ranging from 0% to 150% of the target opportunity based on the actual achievement of financial goals for the three-year performance period. The aggregate target number of PBRS shares granted was 35,602 with an average grant date fair value of $48.67 per share. The 2018 expense related to these grants totaled $745,000 and is based on the grant date fair value of the awards and the Company's achievement of 144% of the target financial goals. The estimated expense for 2018 and each future period through the vesting date is subject to prospective adjustment based upon changes in the expected achievement of the financial goals.

SARs

During 2018, there were no SARs granted and no expense recognized. As of December 31, 2018, there was no unrecognized compensation expense related to SARs.

Changes in SARs outstanding for the year ended December 31, 2018 were as follows:

	SARs	Weighted Average Exercise Price
Balance at December 31, 2017	281,067	$29.14
Exercised	(43,946)	25.26
Forfeited	—	—
Balance at December 31, 2018	237,121	29.86
Exercisable at December 31, 2018	237,121	$29.86

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The total intrinsic value of SARs exercised during 2018 and 2017 was $1,110,000 and $892,000, respectively. The average remaining contractual term for SARs outstanding as of December 31, 2018 was 3.50 years, and the aggregate intrinsic value was $5,468,000. The average remaining contractual term for SARs exercisable as of December 31, 2017 was 5.03 years, and the aggregate intrinsic value was $7,291,000.

The total compensation cost for share-based payment arrangements was $3,006,000, $2,340,000, and $1,959,000 in 2018, 2017, and 2016, respectively.

Note 12
Other Operating Expense

Details of other operating expense are as follows:

	For the Years Ended December 31,		
(In thousands)	**2018**	**2017**	**2016**
Postage and supplies	$ 2,180	$ 2,087	$ 1,925
Promotional expense	3,344	2,557	2,187
Professional fees	2,170	1,650	1,930
Outside service fees	4,909	4,424	3,316
Data processing services	919	897	372
Telecommunications	778	749	1,000
Other	1,963	1,722	1,913
Total other operating expense	$ 16,263	$ 14,086	$ 12,643

Note 13
Income Taxes

The components of income tax expense are as follows:

	For the Years Ended December 31,		
(In thousands)	**2018**	**2017**	**2016**
Current:			
Federal	$ 8,557	$ 4,250	$ 6,456
State	1,043	1,638	941
Deferred:			
Federal	(3,404)	4,256	301
State	(117)	(259)	18
Total income tax expense	$ 6,079	$ 9,885	$ 7,716

A reconciliation of expected income tax expense, computed by applying the effective federal statutory rate of 21% for 2018 and 35% for each of 2017 and 2016 to income before income tax expense is as follows:

	For the Years Ended December 31,		
(In thousands)	**2018**	**2017**	**2016**
Expected income tax expense	$ 7,633	$ 12,214	$ 11,223
(Reductions) increases resulting from:			
Tax-exempt income	(2,009)	(3,868)	(3,754)
State taxes, net of federal benefit	732	896	623
Share-based compensation adjustment	(286)	(376)	
Adjustment of deferred tax asset or liability for TCJA	(74)	1,824	
Other, net	83	(805)	(376)
Total income tax expense	$ 6,079	$ 9,885	$ 7,716

On December 22, 2017, the TCJA was enacted. Among other things, the new law (i) establishes a new, flat corporate federal statutory income tax rate of 21%; (ii) eliminates the corporate alternative minimum tax and allows the use of any such carryforwards to offset regular tax liability for any taxable year; (iii) limits the deduction for net interest expense incurred by U.S. corporations; (iv) allows businesses to immediately expense, for tax purposes, the cost of new investments in certain qualified depreciable assets; (v) eliminates or reduces certain deductions related to meals and entertainment expenses; (vi) modifies the limitation on excessive employee remuneration to eliminate the exception for performance-based compensation and clarifies the definition of a covered employee; and (vii) limits the deductibility of deposit insurance premiums. The TCJA also significantly changes U.S. tax law related to foreign operations, though, such changes do not currently impact the Company on a significant level.

Also on December 22, 2017, the SEC issued SAB 118, which provides guidance on accounting for tax effects of the TCJA. SAB 118 provides a measurement period of up to one year from the enactment date to complete the accounting. Based on the information available and current interpretation of the rules at December 31, 2017, the Company made provisional estimates of the impact of the reduction in the corporate tax rate and remeasurement of certain deferred tax assets and liabilities based on the rate at which they were expected to reverse in the future totaling $1,824,000. The final analysis and measurement was completed during the fourth quarter of 2018 when the Company filed the 2017 U.S. federal income tax return and a reduction of tax expense in the amount of $74,000 was recorded.

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Income tax expense in 2018 totaled $6,079,000 compared to $9,885,000 and $7,716,000 in 2017 and 2016, respectively. When measured as a percent of pre-tax income, the Company's effective tax rate was 17% in 2018, 28% in 2017, and 24% in 2016. The decrease in 2018 tax expense was primarily the result of two items:

- the decrease in the federal income tax rate and
- the one-time, non-cash charge of $1,824,000 that increased 2017 tax expense triggered by the passage of the TCJA on December 22, 2017.

The Company's effective tax rate for 2018 was 17% and the Company's 2017 effective tax rate was 25% excluding the onetime TCJA charge. The Company's effective tax rate has traditionally been lower than the statutory rate because of investments and loans that are tax exempt.

The tax effects of temporary differences which give rise to significant portions of the deferred tax assets and deferred tax liabilities are presented below:

(In thousands)	December 31, 2018	2017
Deferred tax assets:		
Allowance for loan losses	$ 2,376	$ 2,413
ASC 715 pension funding liability	6,000	6,080
Net operating loss carryforward [(1)]	50	76
Supplemental executive retirement plan accrual	1,968	1,833
Stock compensation	1,673	1,307
Other		118
Total deferred tax assets	$ 12,067	$ 11,827
Deferred tax liabilities:		
Premises and equipment	(1,937)	(2,248)
Pension	(409)	(1,379)
Intangible assets	(1,212)	(1,091)
Unrealized gain on investment in securities available-for-sale	(156)	(1,938)
Deferred income		(2,121)
Other	(80)	
Total deferred tax liabilities	$ (3,794)	$ (8,777)
Net deferred tax assets	$ 8,273	$ 3,050

(1) As of December 31, 2018, the Company had approximately $238,000 of net operating loss carry forwards as a result of the acquisition of Franklin Bancorp. The utilization of the net operating loss carry forward is subject to Section 382 of the Internal Revenue Code and limits the Company's use to approximately $122,000 per year during the carry forward period, which expires in 2020.

A valuation allowance would be provided on deferred tax assets when it is more likely than not that some portion of the assets will not be realized. The Company has not established a valuation allowance at December 31, 2018 or 2017, due to management's belief that all criteria for recognition have been met, including the expectation of projected future taxable income sufficient to support the realization of deferred tax assets.

The reconciliation of the beginning unrecognized tax benefits balance to the ending balance is presented in the following table:

(In thousands)	2018	2017	2016
Balance at January 1	$ 1,632	$ 1,623	$ 1,194
Changes in unrecognized tax benefits as a result of tax positions taken during a prior year	(135)	(15)	407
Changes in unrecognized tax benefits as a result of tax position taken during the current year	192	263	311
Decreases in unrecognized tax benefits relating to settlements with taxing authorities			
Reductions to unrecognized tax benefits as a result of a lapse of the applicable statute of limitations	(286)	(239)	(289)
Balance at December 31	$ 1,403	$ 1,632	$ 1,623

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At December 31, 2018, 2017 and 2016, the balance of the Company's unrecognized tax benefits which would, if recognized, affect the Company's effective tax rate was $1,272,000, $1,464,000 and $1,225,000, respectively. These amounts are net of the offsetting benefits from other taxing jurisdictions.

As of December 31, 2018, 2017 and 2016, the Company had $136,000, $139,000 and $108,000, respectively, in accrued interest related to unrecognized tax benefits. During 2018, the Company recorded a net decrease in accrued interest of $3,000 and in 2017 a net increase of $31,000. The Company recognizes income tax related interest and penalties in income tax expense.

The Company believes it is reasonably possible that the total amount of tax benefits will decrease by approximately $316,000 over the next 12 months. The reduction primarily relates to the anticipated lapse in the statute of limitations. The unrecognized tax benefits relate primarily to apportionment of taxable income among various state tax jurisdictions.

The Company is subject to income tax in the U.S. federal jurisdiction, numerous state jurisdictions, and a foreign jurisdiction. The Company's federal income tax returns for tax years 2015 through 2017 remain subject to examination by the Internal Revenue Service. In addition, the Company is subject to state tax examinations for the tax years 2014 through 2017 and currently is not under examination in any tax jurisdictions.

Note 14
Contingencies

The Company and its subsidiaries are not involved in any pending proceedings other than ordinary routine litigation incidental to their businesses. Management believes none of these proceedings, if determined adversely, would have a material effect on the business or financial condition of the Company or its subsidiaries.

Note 15
Disclosures about Fair Value of Financial Instruments

The Company is party to financial instruments with off-balance sheet risk in the normal course of business to meet the financing needs of its customers. These financial instruments include commitments to extend credit, commercial letters of credit and standby letters of credit. The Company's maximum potential exposure to credit loss in the event of nonperformance by the other party to the financial instrument for commitments to extend credit, commercial letters of credit and standby letters of credit is represented by the contractual amounts of those instruments. At December 31, 2018 and 2017, no amounts have been accrued for any estimated losses for these instruments.

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract. Commercial and standby letters of credit are conditional commitments issued by the Company to guarantee the performance of a customer to a third party. These off-balance sheet financial instruments generally have fixed expiration dates or other termination clauses and may require payment of a fee. The approximate remaining terms of commercial and standby letters of credit range from less than one to five years. Since these financial instruments may expire without being drawn upon, the total amounts do not necessarily represent future cash requirements. Commitments to extend credit and letters of credit are subject to the same underwriting standards as those financial instruments included on the consolidated balance sheets. The Company evaluates each customer's credit-worthiness on a case-by-case basis. The amount of collateral obtained, if deemed necessary upon extension of the credit, is based on management's credit evaluation of the borrower. Collateral held varies, but is generally accounts receivable, inventory, residential or income-producing commercial property or equipment. In the event of nonperformance, the Company may obtain and liquidate the collateral to recover amounts paid under its guarantees on these financial instruments.

The following table shows conditional commitments to extend credit, standby letters of credit and commercial letters:

	December 31,	
(In thousands)	**2018**	**2017**
Conditional commitments to extend credit	$ 144,010	$ 87,013
Standby letters of credit	11,368	14,347
Commercial letters of credit	3,486	3,246

The fair value of commitments to extend credit and standby letters of credit is estimated using the fees currently charged to enter into similar agreements, taking into account the remaining terms of the agreements, the likelihood of the counterparties drawing on such financial instruments and the present credit worthiness of such counterparties. The Company believes such commitments have been made at terms which are competitive in the markets in which it operates; however, no premium or discount is offered thereon.

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Following is a summary of the carrying amounts and fair values of the Company’s financial instruments:

	December 31, 2018		2017	
(In thousands)	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Balance sheet assets:				
Cash and cash equivalents	$ 230,933	$ 230,933	$ 228,110	$ 228,110
Investment in securities	441,534	441,534	470,523	470,523
Loans, net	711,362	711,090	676,026	675,020
Accrued interest receivable	7,069	7,069	7,413	7,413
Total	$ 1,390,898	$ 1,390,626	$ 1,382,072	$ 1,381,066
Balance sheet liabilities:				
Deposits	$ 721,926	$ 722,018	$ 678,088	$ 678,346
Accounts and drafts payable	694,360	694,360	661,888	661,888
Accrued interest payable	91	91	55	55
Total	$ 1,416,377	$ 1,416,469	$ 1,340,031	$ 1,340,289

The following methods and assumptions were used to estimate the fair value of each class of financial instruments for which it is practicable to estimate that value:

Cash and Cash Equivalents The carrying amount approximates fair value.

Investment in Securities The fair value is measured on a recurring basis using Level 2 valuations. Refer to Note 3, “Investment in Securities,” for fair value and unrealized gains and losses by investment type.

Loans The fair value is estimated using present values of future cash flows discounted at risk-adjusted interest rates for each loan category designated by management and is therefore a Level 3 valuation. Management believes that the risk factor embedded in the interest rates along with the allowance for loan losses results in a fair valuation.

Impaired loans are valued using the fair value of the collateral which is based upon an observable market price or current appraised value and therefore, the fair value is a nonrecurring Level 3 valuation.

Accrued Interest Receivable The carrying amount approximates fair value.

Deposits The fair value of demand deposits, savings deposits and certain money market deposits is the amount payable on demand at the reporting date. The fair value of fixed-maturity certificates of deposit is estimated using the rates currently offered for deposits of similar remaining maturities and therefore, is a Level 2 valuation. The fair value estimates above do not include the benefit that results from the low-cost funding provided by the deposit liabilities compared to the cost of borrowing funds in the market or the benefit derived from the customer relationship inherent in existing deposits.

Accounts and Drafts Payable The carrying amount approximates fair value.

Accrued Interest The carrying amount approximates fair value.

Limitations Fair value estimates are based on existing on- and off-balance sheet financial instruments without attempting to estimate the value of anticipated future business and the value of assets and liabilities that are not considered financial instruments. Other significant assets or liabilities that are not considered financial assets or liabilities include premises and equipment and the benefit that results from the low-cost funding provided by the deposit liabilities compared to the cost of borrowing funds in the market (core deposit intangible). In addition, tax ramifications related to the realization of the unrealized gains and losses can have a significant effect on fair value estimates and have not been considered in any of the estimates.

Note 16
Revenue from Contracts with Customers

On January 1, 2018, the Company adopted FASB ASC 606 and selected the modified retrospective transition method. The adoption of this new standard did not impact the Company's results of operations or balance sheet and there was no cumulative effect of initially applying this new revenue standard to the opening balance of retained earnings. Since interest income on loans and securities are both excluded from this topic, a significant portion of the Company's revenues are not subject to the new guidance. The services that fall within the scope of FASB ASC 606 are presented within fee revenue and other income in the Consolidated Statements of Income and are recognized as revenue as the obligation to the customer is satisfied. Services within the scope of FASB ASC 606 include invoice processing and payment fees, bank service fees, and other real estate owned ("OREO").

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Invoice processing fees – The Company earns fees on a per-item or monthly basis for the invoice processing services rendered on behalf of customers. Per-item fees are recognized at the point in time when the performance obligation is satisfied. Monthly fees are earned over the course of a month, representing the period over which the performance obligation is satisfied. The Company also earns interest income from the balances generated during the payment cycle for the invoices processed, which is an integral component of the Company's compensation for invoice processing services but is out-of-scope of FASB ASC 606. The contracts have no significant impact of variable consideration and no significant financing components.

Invoice payment fees – The Company earns fees on a transaction level basis for invoice payment services when making customer payments. Fees are recognized at the point in time when the payment transactions are made, which is when the performance obligation is satisfied. The contracts have no significant impact of variable consideration and no significant financing components.

Bank service fees – Revenue from service fees consists of service charges and fees on deposit accounts under depository agreements with customers to provide access to deposited funds. Service charges on deposit accounts are transaction based fees that are recognized at the point in time when the performance obligation is satisfied. Service charges are recognized on a monthly basis representing the period over which the performance obligation is satisfied. The contracts have no significant impact of variable consideration and no significant financing components.

OREO – The Company currently does not have any OREO and has not in recent years. Net gains or losses would be recorded when other real estate is sold to a third party and substantially all of the consideration for the transfer of property is received.

	For the Years Ended December 31,		
(In thousands)	**2018**	**2017**	**2016**
Fee revenue and other income			
In-scope of FASB ASC 606			
Invoice processing fees	$ 78,461	$ 72,961	$ 67,276
Invoice payment fees	23,720	20,361	16,437
Information services payment and processing revenue	102,181	93,322	83,713
Bank service fees	1,335	1,349	1,276
Fee revenue (in-scope of FASB ASC 606)	103,516	94,671	84,989
Other income (out-of-scope of FASB ASC 606)	560	841	1,147
Total fee revenue and other income	104,076	95,512	86,136
Net interest income after provision for loan losses (out-of-scope of FASB ASC 606)	44,190	39,790	39,401
Total net revenue	$ 148,266	$ 135,302	$ 125,537

Note 17
Industry Segment Information

The services provided by the Company are classified into two reportable segments: Information Services and Banking Services. Each of these segments provides distinct services that are marketed through different channels. They are managed separately due to their unique service and processing requirements.

The Information Services segment provides transportation, energy, telecommunication, and environmental invoice processing and payment services to large corporations. The Banking Services segment provides banking services primarily to privately held businesses and faith-based ministries as well as supporting the banking needs of the Information Services segment.

The Company's accounting policies for segments are the same as those described in Note 1 of this report. Management evaluates segment performance based on tax-equivalized (as defined in the footnote to the chart on the following table) pre-tax income after allocations for corporate expenses. Transactions between segments are accounted for at what management believes to be fair value.

Substantially all revenue originates from, and all long-lived assets are located within the United States, and no revenue from any customer of any segment exceeds 10% of the Company's consolidated revenue.

Funding sources represent average balances and deposits generated by Information Services and Banking Services and there is no allocation methodology used. Segment interest income is a function of the relative share of average funding sources generated by each segment multiplied by the following rates:

Information Services – one or more fixed rates depending upon the specific characteristics of the funding source, and

Banking Services – a variable rate that is based upon the overall performance of the Company's earning assets.
Any difference between total segment interest income and overall total Company interest income is included in Corporate, Eliminations, and Other. Certain amounts in the table below for 2017 and 2016 have been reclassified to conform to 2018 presentation.

Summarized information about the Company's operations in each industry segment for the years ended December 31, 2018, 2017 and 2016, is as follows:

(In thousands)	**Information Services**	**Banking Services**	**Corporate, Eliminations and Other**	**Total**
2018				
Fee income from customers	$ 102,839	$ 1,307	$ (70)	$ 104,076
Interest income*	22,273	23,706	4,369	50,348
Interest expense		3,736		3,736
Intersegment income (expense)		1,880	(1,880)	
Depreciation and amortization	4,254	142		4,396
Tax-equivalized pre-tax income*	24,962	11,625	2,181	38,768
Goodwill	12,433	136		12,569
Other intangible assets, net	1,554			1,554
Total Assets	826,201	886,291	(17,316)	1,695,176

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Funding Sources	642,733	572,653	—	1,215,386
2017				
Fee income from customers	$ 93,484	$ 1,547	$ 481	$ 95,512
Interest income*	20,634	23,732	3,301	47,667
Interest expense	—	2,187	—	2,187
Intersegment income (expense)	—	1,362	(1,362)	—
Depreciation and amortization	3,902	149	—	4,051
Tax-equivalized pre-tax income*	24,990	13,691	1,908	40,589
Goodwill	12,433	136	—	12,569
Other intangible assets, net	1,996	—	—	1,996
Total Assets	854,214	830,672	(27,677)	1,603,209
Funding Sources	604,493	598,986	—	1,203,479
2016				
Fee income from customers	$ 83,821	$ 1,417	$ 898	$ 86,136
Interest income*	18,729	24,088	2,614	45,431
Interest expense	—	2,029	—	2,029
Intersegment income (expense)	—	1,136	(1,136)	—
Depreciation and amortization	3,488	165	—	3,653
Tax-equivalized pre-tax income*	20,065	15,090	2,410	37,565
Goodwill	11,454	136	—	11,590
Other intangible assets, net	1,997	—	—	1,997
Total Assets	763,999	756,164	(15,324)	1,504,839
Funding Sources	545,726	614,974	—	1,160,700

* Presented on a tax-equivalent basis assuming a tax rate of 21% for 2018 and 35% for 2017 and 2016. The tax-equivalent adjustment was approximately $2,422,000 for 2018, $5,691,000 for 2017, and $5,550,000 for 2016.

Note 18
Subsequent Events

In accordance with FASB ASC 855 - *Subsequent Events*, the Company has evaluated subsequent events after the consolidated balance sheet date of December 31, 2018, and there were no events identified that would require additional disclosures to prevent the Company's consolidated financial statements from being misleading.

Note 19
Condensed Financial Information of Parent Company

Following are the condensed balance sheets of the Company (parent company only) and the related condensed statements of income and cash flows.

	Condensed Balance Sheets December 31,	
(In thousands)	**2018**	**2017**
Assets		
Cash and due from banks	$ 35,735	$ 56,462
Short-term investments	35,201	48,324
Securities available-for-sale, at fair value	441,534	470,523
Loans, net	20,188	12,239
Investments in subsidiaries	130,231	113,681
Premises and equipment, net	21,358	20,927
Other assets	278,151	199,865
Total assets	$ 962,398	$ 922,021
Liabilities and Shareholders' Equity		
Liabilities:		
Accounts and drafts payable	$ 693,026	$ 661,342
Other liabilities	39,362	35,533
Total liabilities	732,388	696,875
Total shareholders' equity	230,010	225,146
Total liabilities and shareholders' equity	$ 962,398	$ 922,021

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(In thousands)	Condensed Statements of Income For the Years Ended December 31, 2018	2017	2016
Income from subsidiaries:			
Interest	$ —	$ —	$ 2
Management fees	2,668	2,172	2,105
Income from subsidiaries	2,668	2,172	2,107
Information services revenue	100,628	93,133	83,543
Net interest income after provision	14,159	13,217	13,389
(Loss) Gain on sales of investment securities	(42)	—	387
Other income	456	483	504
Total income	117,869	109,005	99,930
Expenses:			
Salaries and employee benefits	77,946	70,409	65,968
Other expenses	23,442	20,333	18,133
Total expenses	101,388	90,742	84,101
Income before income tax and equity in undistributed income of subsidiaries	16,481	18,263	15,829
Income tax expense	1,788	4,394	1,540
Income before undistributed income of subsidiaries	14,693	13,869	14,289
Equity in undistributed income of subsidiaries	15,575	11,145	10,059
Net income	$ 30,268	$ 25,014	$ 24,348

(In thousands)	Condensed Statements of Cash Flows For the Years Ended December 31, 2018	2017	2016
Cash flows from operating activities:			
Net income	$ 30,268	$ 25,014	$ 24,348
Adjustments to reconcile net income to net cash (used in) provided by operating activities:			
Equity in undistributed income of subsidiaries	(15,575)	(11,145)	(10,059)
Net change in other assets	(76,686)	(41,013)	(7,085)
Net change in other liabilities	3,829	10,118	6,683
Amortization of stock-based awards	2,583	1,743	1,677
Other, net	10,242	9,219	7,558
Net cash provided by (used in) operating activities	(45,339)	(6,064)	23,122
Cash flows from investing activities:			
Net decrease (increase) in securities	14,615	(80,621)	(33,025)
Net (increase) decrease in loans	(7,949)	34,944	40,431
Purchases of premises and equipment, net	(4,211)	(4,020)	(4,557)
Net cash (used in) provided by investing activities	2,455	(49,697)	2,849
Cash flows from financing activities:			
Net increase in accounts and drafts payable	31,684	20,397	64,026
Cash dividends paid	(13,177)	(10,675)	(9,979)
Purchase of common shares for treasury	(8,838)	(2,270)	(9,215)
Other financing activities	(635)	(267)	1,705
Net cash provided by financing activities	9,034	7,185	46,537
Net (decrease) increase in cash and cash equivalents	(33,850)	(48,576)	72,508
Cash and cash equivalents at beginning of year	104,786	153,362	80,854
Cash and cash equivalents at end of year	$ 70,936	$ 104,786	$ 153,362

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Note 20
SUPPLEMENTARY FINANCIAL INFORMATION
(Unaudited)

(In thousands except per share data)	**First Quarter**	**Second Quarter**	**Third Quarter**	**Fourth Quarter**	**YTD**
2018					
Fee revenue and other income	$ 25,374	$ 25,640	$ 26,435	$ 26,627	$ 104,076
Interest income	11,288	11,513	12,215	12,910	47,926
Interest expense	679	794	1,029	1,234	3,736
Net interest income	10,609	10,719	11,186	11,676	44,190
Provision for loan losses	—	—	—	—	—
Operating expense	26,182	27,463	28,530	29,744	111,919
Income tax expense	1,709	1,387	1,481	1,502	6,079
Net income	$ 8,092	$ 7,509	$ 7,610	$ 7,057	$ 30,268
Net income per share:					
Basic earnings per share	$ .55	$ .51	$ .52	$ .48	$ 2.06
Diluted earnings per share	.54	.50	.51	.47	2.03
2017					
Fee revenue and other income	$ 22,771	$ 23,800	$ 24,207	$ 24,734	$ 95,512
Interest income	9,999	10,332	10,665	10,981	41,977
Interest expense	480	470	571	666	2,187
Net interest income	9,519	9,862	10,094	10,315	39,790
Provision for loan losses	—	—	—	—	—
Operating expense	24,318	24,901	25,042	26,142	100,403
Income tax expense	1,665	2,248	2,396	3,576 [(1)]	9,885 [(1)]
Net income	$ 6,307	$ 6,513	$ 6,863	$ 5,331	$ 25,014
Net income per share:					
Basic earnings per share	$ .43	$ .44	$ .47	$ .36	$ 1.70
Diluted earnings per share	.42	.44	.46	.36	1.68

[(1)] Includes one-time, non-cash TCJA charge of $1,824,000

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Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Cass Information Systems, Inc.:

Opinion on the Consolidated Financial Statements

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 1, 2019 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

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

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

/s/ KPMG LLP

We have served as the Company's auditor since 1983.

St. Louis, Missouri
March 1, 2019

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ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE
None.

ITEM 9A. CONTROLS AND PROCEDURES

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), as of December 31, 2018. Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of December 31, 2018.

Management’s Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentations.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under this framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2018.

There have not been changes in our internal control over financial reporting that occurred during our fourth fiscal quarter that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

The effectiveness of our internal control over financial reporting as of December 31, 2018 has been audited by KPMG LLP, our independent registered public accounting firm. KPMG LLP’s report, which expresses an unqualified opinion on the effectiveness of our internal control over financial reporting as of December 31, 2018, is included below.

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Cass Information Systems, Inc.:

Opinion on Internal Control Over Financial Reporting

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, cash flows, and shareholders' equity for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively, the consolidated financial statements), and our report dated March 1, 2019 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

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

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

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ KPMG LLP

St. Louis, Missouri
March 1, 2019

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ITEM 9B. OTHER INFORMATION

None.

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PART III.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Certain information required by this Item 10 is incorporated herein by reference to the following sections of the Company's definitive Proxy Statement for its 2019 Annual Meeting of Shareholders ("2019 Proxy Statement"), a copy of which will be filed with the SEC no later than 120 days after the close of the fiscal year: "Election of Directors – Proposal 1," "Executive Compensation and Related Information," and "Beneficial Ownership of Securities."

The Company has adopted a Code of Conduct and Business Ethics policy, applicable to all Company directors, executive officers and employees. The policy is publicly available and can be viewed on the Company's website at www.cassinfo.com. The Company intends to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding the amendment to, or a waiver of, a provision of this policy that applies to the Company's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, and that relates to any element of the code of ethics definition enumerated in Item 406(b) of Regulation S-K by posting such information on its website.

There were no material changes to the procedures by which shareholders may recommend nominees to the Board during the fourth quarter of fiscal 2018.

ITEM 11. EXECUTIVE COMPENSATION

Certain information required pursuant to this Item 11 is incorporated herein by reference to the sections entitled "Election of Directors – Proposal 1" and "Executive Compensation and Related Information" of the Company's 2019 Proxy Statement, a copy of which will be filed with the SEC no later than 120 days after the close of the fiscal year.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required pursuant to this Item 12 is incorporated herein by reference to the section entitled "Beneficial Ownership of Securities" of the Company's 2019 Proxy Statement, a copy of which will be filed with the SEC no later than 120 days after the close of the fiscal year.

Securities Authorized for Issuance under Equity Compensation Plans

The following information is as of December 31, 2018:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders [1][2]	390,644	$ 36.47	507,654
Equity compensation plans not approved by security holders	—	—	—
Total	390,644	$ 36.47	507,654

Note: All share and per share data have been restated to give effect to the 20% stock dividend that was paid on December 14, 2018.

(1) Amount disclosed relates to the Amended and Restated Omnibus Stock and Performance Compensation Plan (the "Omnibus Plan").

(2) Includes restricted stock units, restricted stock, SARs, and performance-based stock. Performance-based stock is included assuming 100% attainment of the targets. The actual number of shares of performance-based stock to be awarded at the end of applicable performance periods ranges from 0% to 150% of the target amount awarded depending on the Company's achievement of pre-established financial goals.

Refer to Note 11 to the consolidated financial statements for information concerning the Omnibus Plan.

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ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this Item 13 is incorporated herein by reference to the section entitled “Election of Directors – Proposal 1” of the Company’s 2019 Proxy Statement, a copy of which will be filed with the SEC no later than 120 days after the close of the fiscal year.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information concerning our principal accountant’s fees and services is incorporated herein by reference to the section entitled “Ratification of Appointment of Independent Registered Public Accounting Firm – Proposal 3” of the Company’s 2019 Proxy Statement, a copy of which will be filed with the SEC no later than 120 days after the close of the fiscal year.

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PART IV.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are incorporated by reference in or filed as an exhibit to this report:

(1) and (2)	Financial Statements and Financial Statement Schedules Included in Item 8 of this report.
(3)	Exhibits listed under (b) of this Item 15.

(b) Exhibits

3.1	Restated Articles of Incorporation of Registrant, incorporated by reference to Exhibit 4.1 to Form S-8 Registration Statement No. 333-44499, filed with the SEC on January 20, 1998.
3.2	Amendment to Restated Articles of Incorporation, incorporated by reference to Exhibit 3.1 to the current report on Form 8-K, filed with the SEC on April 19, 2013.
3.3	Articles of Merger of Cass Commercial Corporation, incorporated by reference to Exhibit 3.1 to the quarterly report on Form 10-Q for the quarter ended September 30, 2006.
3.4	Second Amended and Restated Bylaws of Registrant, incorporated by reference to Exhibit 3.1 to the current report on Form 8-K, filed with the SEC on July 21, 2016.
10.1	Form of Directors' Indemnification Agreement, incorporated by reference to Exhibit 10.1 to the quarterly report on Form 10-Q for the quarter ended March 31, 2003.*
10.2	Amended and Restated Omnibus Stock and Performance Compensation Plan, incorporated by reference to Exhibit 10.1 to the current report on Form 8-K, filed with the SEC on April 19, 2013.*
10.3	Amendment and Restatement of the Supplemental Executive Retirement Plan, incorporated by reference to Exhibit 10.2 to the quarterly report on Form 10-Q for the quarter ended September 30, 2007.*
10.4	Form of Stock Appreciation Rights Award Agreement, incorporated by reference to Exhibit 10.4 to the quarterly report on Form 10-Q for the quarter ended September 30, 2007.*
10.5	Form of Restricted Stock Award Agreement, incorporated by reference to Exhibit 10.8 to the annual report on Form 10-K for the year ended December 31, 2016.*
10.6	Form of Restricted Stock Unit Agreement, incorporated by reference to Exhibit 10.9 to the annual report on Form 10-K for the year ended December 31, 2016.*
10.7	Description of Cass Information Systems, Inc. Profit Sharing Program.*
21	Subsidiaries of registrant.
23	Consent of Independent Registered Public Accounting Firm.

31.1	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.

*Management contract or compensatory plan arrangement

(c) None.

ITEM 16. FORM 10-K SUMMARY

None.

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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.

CASS INFORMATION SYSTEMS, INC.

Date: February 28, 2019 By /s/ Eric H. Brunngraber
Eric H. Brunngraber
Chairman, President and Chief Executive Officer
(Principal Executive Officer)

Date: February 28, 2019 By /s/ P. Stephen Appelbaum
P. Stephen Appelbaum
Executive Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below on the dates indicated by the following persons on behalf of the registrant and in their capacity as a member of the Board of Directors of the Company.

Date: February 28, 2019	By	/s/	Eric H. Brunngraber Eric H. Brunngraber
Date: February 28, 2019	By	/s/	Ralph W. Clermont Ralph W. Clermont
Date: February 28, 2019	By	/s/	Lawrence A. Collett Lawrence A. Collett
Date: February 28, 2019	By	/s/	Robert A. Ebel Robert A. Ebel
Date: February 28, 2019	By	/s/	Benjamin F. Edwards, IV Benjamin F. Edwards, IV
Date: February 28, 2019	By	/s/	James J. Lindemann James J. Lindemann
Date: February 28, 2019	By	/s/	Joseph D. Rupp Joseph D. Rupp
Date: February 28, 2019	By	/s/	Randall L. Schilling Randall L. Schilling
Date: February 28, 2019	By	/s/	Franklin D. Wicks, Jr. Franklin D. Wicks, Jr.