# UNITED STATES <br> SECURITIES AND EXCHANGE COMMISSION <br> Washington, D.C. 20549 

Form 10-K

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

For the fiscal year ended December 31, 2018
$\square$ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Commission file number 001-31830

## Cathay General Bancorp

## (Exact name of Registrant as specified in its charter)

Delaware<br>(State or other jurisdiction of incorporation or organization)<br>777 North Broadway, Los Angeles, California<br>(I.R.S. Employer Identification No.)<br>90012<br>(Zip Code) (Address of principal executive offices)

Registrant's telephone number, including area code: (213) 625-4700
Securities registered pursuant to Section 12(b) of the Act:
Title of each class
Name of each exchange on which registered
Common Stock, $\$ .01$ par value
NASDAQ Global Select Market
Securities registered pursuant to Section 12(g) of the Act: None
Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes $\square \quad$ No $\square$ Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or $15(\mathrm{~d})$ of the Act. Yes $\square \quad$ No $\nabla$ Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or $15(\mathrm{~d})$ 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 $\nabla \quad$ No $\square$

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes $\square \quad$ No $\square$

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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 $10-\mathrm{K}$ 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. (Check one):

| Large accelerated filer $\square$ | Accelerated filer $\square$ |
| :--- | :--- |
| Non-accelerated filer $\square$ | Smaller reporting company $\square$ |
|  | Emerging growth company $\square$ |

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes $\square$ No $\nabla$
The aggregate market value of the voting stock held by non-affiliates of the registrant, computed by reference to the price at which the common equity was last sold as of the last business day of the registrant's most recently completed second fiscal quarter (June 29, 2018) was $\$ 3,106,077,221$. This value is estimated solely for the purposes of this cover page. The market value of shares held by registrant's directors, executive officers, and Employee Stock Ownership Plan have been excluded because they may be considered to be affiliates of the registrant.

As of February 15,2019 , the registrant had outstanding $80,478,248$ shares of its common stock.
DOCUMENTS INCORPORATED BY REFERENCE
Portions of Registrant's definitive proxy statement relating to Registrant's 2019 Annual Meeting of Stockholders, which will be filed within 120 days of the fiscal year ended December 31, 2018, are incorporated by reference in this Form 10-K in response to Part III, Items 10, 11, 12, 13 and 14 of this Form 10-K.

## CATHAY GENERAL BANCORP

## 2018 ANNUAL REPORT ON FORM 10-K

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## Forward-Looking Statements

In this Annual Report on Form 10-K, the term "Bancorp" refers to Cathay General Bancorp and the term "Bank" refers to Cathay Bank. The terms "Company," "we," "us," and "our" refer to Bancorp and the Bank collectively. The statements in this report include forward-looking statements within the meaning of the applicable provisions of the Private Securities Litigation Reform Act of 1995 regarding management's beliefs, projections, and assumptions concerning future results and events. We intend such forward-looking statements to be covered by the safe harbor provision for forward-looking statements in these provisions. All statements other than statements of historical fact are "forward-looking statements" for purposes of federal and state securities laws, including statements about anticipated future operating and financial performance, financial position and liquidity, growth opportunities and growth rates, growth plans, acquisition and divestiture opportunities, business prospects, strategic alternatives, business strategies, financial expectations, regulatory and competitive outlook, investment and expenditure plans, financing needs and availability, and other similar forecasts and statements of expectation and statements of assumptions underlying any of the foregoing. Words such as "aims," "anticipates," "believes," "can," "could," "estimates," "expects," "hopes," "intends," "may," "plans," "projects," "seeks," "shall," "should," "will," "predicts," "potential," "continue," "possible," "optimistic," and variations of these words and similar expressions are intended to identify these forward-looking statements. Forward-looking statements by us are based on estimates, beliefs, projections, and assumptions of management and are not guarantees of future performance. These forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from our historical experience and our present expectations or projections. Such risks and uncertainties and other factors include, but are not limited to, adverse developments or conditions related to or arising from:

- U.S. and international business and economic conditions;
- possible additional provisions for loan losses and charge-offs;
- credit risks of lending activities and deterioration in asset or credit quality;
- extensive laws and regulations and supervision that we are subject to, including potential supervisory action by bank supervisory authorities;
- increased costs of compliance and other risks associated with changes in regulation, including the implementation of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act");
- higher capital requirements from the implementation of the Basel III capital standards;
- compliance with the Bank Secrecy Act and other money laundering statutes and regulations;
- potential goodwill impairment;
- liquidity risk;
- fluctuations in interest rates;
- risks associated with acquisitions and the expansion of our business into new markets;
- inflation and deflation;
- environmental liabilities;
- our ability to compete with larger competitors;
- our ability to retain key personnel;
- successful management of reputational risk;
- natural disasters and geopolitical events;
- general economic or business conditions in Asia, and other regions where the Bank has operations;
- failures, interruptions, or security breaches of our information systems;
- our ability to adapt our systems to the expanding use of technology in banking;
- risk management processes and strategies;
- adverse results in legal proceedings;
- the impact of regulatory enforcement actions, if any;
- certain provisions in our charter and bylaws that may affect acquisition of the Company;
- changes in accounting standards or tax laws and regulations;
- market disruption and volatility;
- fluctuations in the Bancorp's stock price;
- restrictions on dividends and other distributions by laws and regulations and by our regulators and our capital structure;
- issuances of preferred stock;
- capital level requirements and successfully raising additional capital, if needed, and the resulting dilution of interests of holders of our common stock; and
- the soundness of other financial institutions.

These and other factors are further described in this Annual Report on Form 10-K (at Item 1 A in particular), the Bancorp's other reports filed with the Securities and Exchange Commission (the "SEC") and other filings the Bancorp's makes with the SEC from time to time. Actual results in any future period may also vary from the past results discussed in this report. Given these risks and uncertainties, readers are cautioned not to place undue reliance on any forward-looking statements, which speak to the date of this report. We have no intention and undertake no obligation to update any forwardlooking statement or to publicly announce any revision of any forward-looking statement to reflect future developments or events, except as required by law.

## PART I

## Item 1. Business.

## Business of Bancorp

## Overview

Cathay General Bancorp (the "Bancorp" on a parent-only basis, and the "Company," "we" or "our" on a consolidated basis) is a corporation that was organized in 1990 under the laws of the State of Delaware. The Bancorp is the holding company of Cathay Bank, a California state-chartered commercial bank ("Cathay Bank" or the "Bank"), nine limited partnerships investing in affordable housing investments in which the Bank is the sole limited partner, GBC Venture Capital, Inc., and Asia Realty Corp. The Bancorp also own $100 \%$ of the common stock of five statutory business trusts created for the purpose of issuing capital securities. Our principal place of business is located at 777 North Broadway, Los Angeles, California 90012, and our telephone number at that location is (213) 625-4700. Certain of our administrative offices are located at 9650 Flair Drive, El Monte, California 91731. Our common stock is traded on the NASDAQ Global Select Market, and our trading symbol is "CATY".

The Bancorp is regulated as a bank holding company by the Board of Governors of the Federal Reserve System ("Federal Reserve"). Cathay Bank is regulated as a California commercial bank by the California Department of Business Oversight ("DBO") and the Federal Deposit Insurance Corporation ("FDIC").

## Subsidiaries of Bancorp

In addition to its wholly-owned bank subsidiary, the Bancorp has the following subsidiaries:

Cathay Capital Trust I, Cathay Statutory Trust I, Cathay Capital Trust II, Cathay Capital Trust III and Cathay Capital Trust IV. The Bancorp established Cathay Capital Trust I in June 2003, Cathay Statutory Trust I in September 2003, Cathay Capital Trust II in December 2003, Cathay Capital Trust III in March 2007, and Cathay Capital Trust IV in May 2007 (collectively, the "Trusts") as wholly-owned subsidiaries. The Trusts are statutory business trusts. The Trusts issued capital securities representing undivided preferred beneficial interests in the assets of the Trusts. The Trusts exist for the purpose of issuing the capital securities and investing the proceeds thereof, together with proceeds from the purchase of the common securities of the Trusts by the Bancorp, in a certain series of securities issued by us, with similar terms to the relevant series of securities issued by each of the Trusts, which we refer to as "Junior Subordinated Notes." The Bancorp guarantees, on a limited basis, payments of distributions on the capital securities of the Trusts and payments on redemption of the capital securities of the Trusts. The Bancorp is the owner of all the beneficial interests represented by the common securities of the Trusts. The purpose of issuing the capital securities was to provide the Company with a cost-effective means of obtaining capital. Because the Bancorp is not the primary beneficiary of the Trusts, the financial statements of the Trusts are not included in our Consolidated Financial Statements.

GBC Venture Capital, Inc. The business purpose of GBC Venture Capital, Inc. is to hold equity interests (such as options or warrants) received as part of business relationships and to make equity investments in companies and limited partnerships subject to applicable regulatory restrictions.

Asia Realty Corp. Asia Realty Corp. was incorporated in January 2013 for the purpose of holding other real estate owned and became a subsidiary of the Bancorp as a result of the acquisition of Asia Bancshares. Asia Realty Corp. owned one foreclosed property with a carrying value of $\$ 3.0$ million at December 31, 2018.

## Competition

The Bancorp's primary business is to act as the holding company for the Bank. Accordingly, the Bancorp faces the same competitive pressures as those expected by the Bank. For a discussion of those risks, see "Business of the Bank Competition" below under this Item 1.

## Employees

Due to the limited nature of the Bancorp's activities as a bank holding company, the Bancorp currently does not employ any persons other than the Bancorp's management, which includes the Chief Executive Officer and President, Executive Chairman, the Chief Financial Officer, Executive Vice Presidents, the Secretary and General Counsel, and the Assistant Secretary. See also "Business of the Bank - Employees" below under this Item 1. In the future, the Bancorp may become an operating company or may engage in such other activities or acquire such other businesses as may be permitted by applicable law.

## Business of the Bank

## General

Cathay Bank was incorporated under the laws of the State of California on August 22, 1961, is licensed by the DBO, and commenced operations as a California state-chartered bank on April 19, 1962. Cathay Bank is an insured bank under the Federal Deposit Insurance Act by the FDIC, but it is not a member of the Federal Reserve.

The Bank's head office is located in the Chinatown area of Los Angeles, at 777 North Broadway, Los Angeles, California 90012. As of December 31, 2018, the Bank has branch offices in Southern California ( 26 branches), Northern California (14 branches), New York (11 branches), Washington (four branches), Illinois (three branches), Texas (two branches), Maryland (one branch), Massachusetts (one branch), Nevada (one branch), New Jersey (one branch), and Hong Kong (one branch) and a representative office in Beijing, in Shanghai, and in Taipei. Deposit accounts at the Hong Kong branch are not insured by the FDIC. Each branch has loan approval rights subject to the branch manager's authorized lending limits. Current activities of the Beijing, Shanghai, and Taipei representative offices are limited to coordinating the transportation of documents to the Bank's head office and performing liaison services.

Our primary market area is defined by the Community Reinvestment Act (the "CRA") delineation, which includes the contiguous areas surrounding each of the Bank's branch offices. It is the Bank's policy to reach out and actively offer services to low and moderate income groups in the delineated branch service areas. Many of the Bank's employees speak both English and one or more Chinese dialects or Vietnamese, and are thus able to serve the Bank's English, Chinese and Vietnamese speaking customers.

As a commercial bank, the Bank accepts checking, savings, and time deposits, and makes commercial, real estate, personal, home improvement, automobile, and other installment and term loans. From time to time, the Bank invests available funds in other interest-earning assets, such as U.S. Treasury securities, U.S. government agency securities, state and municipal securities, mortgage-backed securities, asset-backed securities, corporate bonds, and other security investments. The Bank also provides letters of credit, wire transfers, forward currency spot and forward contracts, traveler's checks, safe deposit, night deposit, Social Security payment deposit, collection, bank-by-mail, drive-up and walk-up windows, automatic teller machines ("ATM"), Internet banking services, and other customary banking services.

The Bank primarily services individuals, professionals, and small to medium-sized businesses in the local markets in which its branches are located and provides commercial mortgage loans, commercial loans, U.S. Small Business Administration ("SBA") loans, residential mortgage loans, real estate construction loans, home equity lines of credit, and installment loans to individuals for automobile, household, and other consumer expenditures.

Through its Cathay Wealth Management business unit, the Bank provides its customers the ability to trade securities online and to purchase mutual funds, annuities, equities, bonds, and short-term money market instruments. As of December 31,2018 , all securities and insurance products provided by Cathay Wealth Management are offered by, and all financial consultants are registered with, Cetera Financial Services, a registered securities broker/dealer and licensed insurance agency and member of the Financial Industry Regulatory Authority and Security Investor Protection Corporation. Cetera Financial Services and Cathay Bank are independent entities. The securities and insurance products offered by Cetera Financial Services are not insured by the FDIC.

## Securities

The Bank's securities portfolio is managed in accordance with a written investment policy which addresses strategies, types, and levels of allowable investments, and which is reviewed and approved by our Board of Directors on an annual basis.

Our investment portfolio is managed to meet our liquidity needs through proceeds from scheduled maturities and is also utilized for pledging requirements for deposits of state and local subdivisions, securities sold under repurchase agreements, and Federal Home Loan Bank ("FHLB") advances. The portfolio is comprised of U.S. government securities, mortgagebacked securities, collateralized mortgage obligations, corporate debt instruments, and mutual funds.

Information concerning the carrying value, maturity distribution, and yield analysis of the Company's securities portfolio as well as a summary of the amortized cost and estimated fair value of the Bank's securities by contractual maturity is included in Part II - Item 7 - "Management's Discussion and Analysis of Financial Condition and Results of Operations," and in Note 4 to the Consolidated Financial Statements.

## Loans

The Bank's Board of Directors and senior management establish, review, and modify the Bank's lending policies. These policies include (as applicable) an evaluation of a potential borrower's financial condition, ability to repay the loan, character, secondary repayment sources (such as guaranties), quality and availability of collateral, capital, leverage capacity and regulatory guidelines, market conditions for the borrower's business or project, and prevailing economic trends and conditions. Loan originations are obtained through a variety of sources, including existing customers, walk-in customers, referrals from brokers or existing customers, and advertising. While loan applications are accepted at all branches, the Bank's centralized document department supervises the application process including documentation of loans, review of appraisals, and credit reports.

Commercial Mortgage Loans. Commercial mortgage loans are typically secured by first deeds of trust on commercial properties. Our commercial mortgage portfolio includes primarily commercial retail properties, shopping centers, and owneroccupied industrial facilities, and, secondarily, office buildings, multiple-unit apartments, hotels, and multi-tenanted industrial properties.

The Bank also makes medium-term commercial mortgage loans which are generally secured by commercial or industrial buildings where the borrower uses the property for business purposes or derives income from tenants.

Commercial Loans. The Bank provides financial services to diverse commercial and professional businesses in its market areas. Commercial loans consist primarily of short-term loans (normally with a maturity of up to one year) to support general business purposes, or to provide working capital to businesses in the form of lines of credit to finance trade. The Bank continues to focus primarily on commercial lending to small-to-medium size businesses within the Bank's geographic market areas. The Bank participates or syndicates loans, typically more than $\$ 25$ million in principal amount, with other financial institutions to limit its credit exposure. Commercial loan pricing is generally at a rate tied to the prime rate, as quoted in The Wall Street Journal, or the Bank's reference rate.

SBA Loans. The Bank originates SBA loans under the national "preferred lender" status. Preferred lender status is granted to a lender that has made a certain number of SBA loans and which, in the opinion of the SBA, has staff qualified and experienced in small business loans. As a preferred lender, the Bank's SBA Lending Group has the authority to issue, on behalf of the SBA, the SBA guaranty on loans under the 7(a) program which may result in shortening the time it takes to process a loan. In addition, under this program, the SBA delegates loan underwriting, closing, and most servicing and liquidation authority and responsibility to selected lenders.

The Bank utilizes both the 504 program, which is focused on long-term financing of buildings and other long-term fixed assets, and the 7(a) program, which is the SBA's primary loan program and which can be used for financing of a variety of general business purposes such as acquisition of land, buildings, equipment and inventory and working capital needs of eligible businesses generally over a 5 - to 25 -year term. The collateral position in the SBA loans is enhanced by the SBA guaranty in the case of 7(a) loans, and by lower loan-to-value ratios under the 504 program. The Bank has sold, and may in the future sell, the guaranteed portion of certain of its SBA 7(a) loans in the secondary market. SBA loan pricing is generally at a rate tied to the prime rate, as quoted in The Wall Street Journal.

Residential Mortgage Loans. The Bank originates single-family-residential mortgage loans. The single-familyresidential mortgage loans are comprised of conforming, nonconforming, and jumbo residential mortgage loans, and are secured by first or subordinate liens on single (one-to-four) family residential properties. The Bank's products include a fixedrate residential mortgage loan and an adjustable-rate residential mortgage loan. Mortgage loans are underwritten in accordance with the Bank's and regulatory guidelines, on the basis of the borrower's financial capabilities, an independent appraisal of the value of the property, historical loan quality, and other factors deemed relevant by the Bank's underwriting personnel. The Bank retains all mortgage loans it originates in its portfolio. As such, the Bank was not impacted by the rule pertaining to risk retention implementing the risk retention requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), since the Bank does not securitize any of the loans it originates in its portfolio.

Real Estate Construction Loans. The Bank's real estate construction loan activity focuses on providing short-term loans to individuals and developers, primarily for the construction of multi-unit projects. Residential real estate construction loans are typically secured by first deeds of trust and guarantees of the borrower. The economic viability of the projects, borrower's credit worthiness, and borrower's and contractor's experience are primary considerations in the loan underwriting decision. The Bank utilizes approved independent licensed appraisers and monitors projects during the construction phase through construction inspections and a disbursement program tied to the percentage of completion of each project. The Bank also occasionally makes unimproved property loans to borrowers who intend to construct a single-family residence on their lots generally within twelve months. In addition, the Bank makes commercial real estate construction loans to high net worth clients with adequate liquidity for construction of office and warehouse properties. Such loans are typically secured by first deeds of trust and are guaranteed by the borrower.

Home Equity Lines of Credit. The Bank offers variable-rate home equity lines of credit that are secured by the borrower's home. The pricing on the variable-rate home equity line of credit is generally at a rate tied to the prime rate, as quoted in The Wall Street Journal, or the Bank's reference rate. Borrowers may use this line of credit for home improvement financing, debt consolidation and other personal uses.

Installment Loans. Installment loans tend to be fixed rate and longer-term (one-to-six year maturities). These loans are funded primarily for the purpose of financing the purchase of automobiles and other personal uses of the borrower.

Distribution and Maturity of Loans. Information concerning types, distribution, and maturity of loans is included in Part II — Item 7 - "Management's Discussion and Analysis of Financial Condition and Results of Operations," and in Note 5 to the Consolidated Financial Statements.

## Asset Quality

The Bank's lending and credit policies require management to regularly review the Bank's loan portfolio so that the Bank can monitor the quality of its assets. If during the ordinary course of business, management becomes aware that a borrower may not be able to meet the contractual payment obligations under a loan, then such policies require that the loan be supervised more closely with consideration given to, among other things, placing the loan on non-accrual status, requiring additional allowance for loan losses, and (if appropriate) charging-off a part or all of the loan.

Under the Bank's current policies, a loan will generally be placed on a non-accrual status if interest or principal is past due 90 days or more, or in cases where management deems the full collection of principal and interest unlikely. When a loan is placed on non-accrual status, previously accrued but unpaid interest is reversed and charged against current income, and subsequent payments received are generally first applied towards the outstanding principal balance of the loan. Depending on the circumstances, management may elect to continue the accrual of interest on certain past due loans if partial payment is received or the loan is well-collateralized, and in the process of collection. The loan is generally returned to accrual status when the borrower has brought the past due principal and interest payments current and, in the opinion of management, the borrower has demonstrated the ability to make future payments of principal and interest as scheduled. A non-accrual loan may also be returned to accrual status if all principal and interest contractually due are reasonably assured of repayment within a reasonable period and there has been a sustained period of payment performance, generally six months.

Information concerning non-performing loans, restructured loans, allowance for credit losses, loans charged-off, loan recoveries, and other real estate owned is included in Part II - Item 7 - "Management's Discussion and Analysis of Financial Condition and Results of Operations," and in Note 5 to the Consolidated Financial Statements.

## Deposits

The Bank offers a variety of deposit products in order to meet its customers' needs. As of December 31, 2018, the Bank offered passbook accounts, checking accounts, money market deposit accounts, certificates of deposit, individual retirement accounts, and public funds deposits. These products are priced generally to promote growth of deposits in a safe and sound manner.

The Bank's deposits are generally obtained from residents within its geographic market area. The Bank utilizes traditional marketing methods to attract new customers and deposits, by offering a wide variety of products and services and utilizing various forms of advertising media. From time to time, the Bank may offer special deposit promotions. Information concerning types of deposit accounts, average deposits and rates, and maturity of time deposits is included in Part II Item 7 - "Management's Discussion and Analysis of Financial Condition and Results of Operations," and in Note 8 to the Consolidated Financial Statements.

## Borrowings

Borrowings from time to time include securities sold under agreements to repurchase, the purchase of federal funds, funds obtained as advances from the FHLB, borrowing from other financial institutions, and the issuance of Junior Subordinated Notes. Information concerning the types, amounts, and maturity of borrowings is included in in Part II - Item 7 - "Management's Discussion and Analysis of Financial Condition and Results of Operations," and in Note 9 and Note 10 to the Consolidated Financial Statements.

## Return on Equity and Assets

Information concerning the return on average assets, return on average stockholders' equity, the average equity to assets ratio and the dividend payout ratio is included in Part II - Item 7 - "Management's Discussion and Analysis of Financial Condition and Results of Operations."

## Interest Rates and Differentials

Information concerning the interest-earning asset mix, average interest-earning assets, average interest-bearing liabilities, and the yields on interest-earning assets and interest-bearing liabilities is included in Part II - Item 7 - "Management's Discussion and Analysis of Financial Condition and Results of Operations."

## Analysis of Changes in Net Interest Income

An analysis of changes in net interest income due to changes in rate and volume is included in Part II - Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations."

## Commitments and Letters of Credit

Information concerning the Bank's outstanding loan commitments and letters of credit is included in Note 13 to the Consolidated Financial Statements.

## Expansion

We have engaged in expansion through acquisitions, and may explore from time to time additional opportunities to acquire financial institutions and other financial services-related businesses and to enter into strategic alliances to expand the scope of our services and our customer base, diversify our market area and asset base and enhance our profitability.

In July 2017, we purchased from Bank SinoPac Co. Ltd. all of the issued and outstanding share capital of SinoPac Bancorp, the parent of Far East National Bank ("FENB"), for an aggregate purchase price of $\$ 351.6$ million plus additional post closing payments based on the realization of certain assets of FENB. We issued 926,192 shares of common stock as consideration and the remainder of the consideration is payable in cash. SinoPac Bancorp was merged with and into Cathay General Bancorp on July 17, 2017 and subsequently, on October 27, 2017, FENB was merged into Cathay Bank. At the date of acquisition, the total value of assets purchased was $\$ 1.2$ billion including total gross loans of $\$ 705.8$ million, investments of $\$ 107.9$ million, and core deposit intangibles of $\$ 6.1$ million. The total value of deposits purchased was $\$ 813.9$ million. The acquisition allowed us to expand the number of our branches in California and resulted in a gain of approximately $\$ 5.6$ million

## Subsidiaries of Cathay Bank

Cathay New Asia Community Development Corporation ("CNACDC") was formed in October 2006 for the purpose of assuming New Asia Bank’s pre-existing New Markets Tax Credit activities in the greater Chicago area by providing or facilitating the availability of capital to businesses and real estate developers working to renovate these neighborhoods.

Cathay Holdings LLC ("CHLLC") was incorporated in December 2007. The purpose of this subsidiary is to hold other real estate owned in the state of Texas that was transferred from the Bank. As of December 31, 2018, CHLLC owned properties with a carrying value of $\$ 930,000$.

## Competition

We face substantial competition for deposits, loans and other banking services, as well as for acquisitions, opportunities, from the numerous banks and financial institutions that operate in our market areas. We also compete for loans and deposits, as well as other banking services, such as payment services, with savings and loan associations, savings banks, brokerage houses, insurance companies, mortgage companies, credit unions, credit card companies and other financial and non-financial institutions and entities.

In California, one larger Chinese-American bank competes for loans and deposits with the Bank and at least two superregional banks compete with the Bank for deposits. In addition, there are many other banks that target the Chinese-American communities in both Southern and Northern California. Banks from the Pacific Rim countries, such as Taiwan, Hong Kong, and China also continue to open branches in the Los Angeles area, thus increasing competition in the Bank's primary markets. See discussion below in Part I - Item 1A - "Risk Factors."

To compete with other financial institutions in its primary service areas, the Bank relies principally upon personal contacts by its officers, directors, employees, and stockholders, our long established relationships with the Chinese-American communities, the Bank's responsiveness to customer needs, local promotional activities, availability and pricing of loan and deposit products, extended hours on weekdays, Saturday banking in certain locations, Internet banking, an Internet website (www.cathaybank.com), and other specialized services. The content of our website is not incorporated into and is not part of this Annual Report on Form 10-K.

If a proposed loan exceeds the Bank's internal lending limits, the Bank has, in the past, and may in the future, arrange the loan on a participation or syndication basis with correspondent banks. The Bank also assists customers requiring other services not offered by the Bank to obtain these services from its correspondent banks.

## Employees

As of December 31, 2018, the Bank and its subsidiaries employed approximately 1,277 persons, including 623 banking officers. None of the employees are represented by a union. We believe that our employer-employee relations are good.

## Executive Officers of the Registrant

The table below sets forth the names, ages, and positions at the Bancorp and the Bank of all executive officers of the Company as of February 15, 2019.

| Name | Age | Present Position and Principal Occupation During the Past Five Years |
| :---: | :---: | :---: |
| Dunson K. Cheng | 74 | Executive Chairman of the Boards of Directors of the Bancorp and the Bank since October 2016; Director of the Bancorp since 1990; Director of the Bank since 1982; Chairman of the Boards of Directors of the Bancorp and the Bank from 1994 to September 2016; President of the Bank from 1985 to March 2015; President and Chief Executive Officer of the Bancorp from 1990 to September 2016. |
| Pin Tai | 64 | Director of the Bancorp since August 2017; Chief Executive Officer and President of the Bancorp since October 2016; Chief Executive Officer of the Bank since October 2016; Director and President of the Bank since April 2015; Chief Lending Officer of the Bank from 2013 to March 2015; Executive Vice President of the Bank from 2006 to 2015; Deputy Chief Lending Officer and General Manager of Eastern Regions of the Bank from 2010 to 2013; General Manager of Eastern Regions of the Bank from 2006 to 2009. |
| Irwin Wong | 70 | Chief Administrative Officer of the Bank since February 2019, Senior Executive Vice President since 2014; Chief Operating Officer of the Bank from 2015 to January 2019; Chief Retail Administration and Regulatory Affairs Officer of the Bank from 2014 to 2015; Executive Vice President and Chief Risk Officer of the Bank from 2011 to 2013; Executive Vice PresidentBranch Administration of the Bank from 1999 to 2011. |
| Heng W. Chen | 66 | Executive Vice President, Chief Financial Officer, and Treasurer of the Bancorp since 2003; Executive Vice President of the Bank since 2003; Chief Financial Officer of the Bank since 2004. |
| Mark H. Lee | 56 | Executive Vice President and Chief Credit Officer of the Bank since December 2017; Executive Vice President and Special Advisor to the Office of the President of the Bank from April 2017 to December 2017; Senior Executive Vice President and Head of Corporate Banking of Bank of Hope (formerly known as BBCN Bank) from 2016 to 2017; Senior Executive Vice President and Chief Credit Officer of BBCN Bank (formerly known as Nara Bank) from 2009 to 2016; and Senior Vice President and Deputy Chief Credit Officer of East West Bank from 2007 to 2009. |
| Kim R. Bingham | 62 | Chief Risk Officer of the Bank since 2014; Executive Vice President of the Bank since 2004; Chief Credit Officer of the Bank from 2004 to 2013. |
| Chang M. Liu | 52 | Chief Operating Officer of the Bank since February 2019; Executive Vice President of the Bank since May 2016; Chief Lending Officer of the Bank from May 2016 to January 2019; Senior Vice President and Deputy Chief Lending Officer of the Bank from April 2015 to March 2016; Senior Vice President and Assistant Chief Lending Officer of the Bank from March 2014 to March 2015; Chief Lending Officer at Banc of California (formerly known as Pacific Trust Bank) from 2011 to March 2014 |
| Lisa L. Kim | 54 | Executive Vice President of Bancorp and Bank since April 2018; General Counsel and Secretary of Bancorp and Bank since September 2014; Senior Vice President of Bancorp and Bank from September 2014 to April 2018; Senior Vice President and Deputy General Counsel of BBCN Bank and BBCN Bancorp, Inc. from January 2014 to September 2014; Senior Vice President and General Counsel of Hanmi Bank and Hanmi Financial Corporation from 2011 to 2013. |

## Available Information

We invite you to visit our website at www.cathaygeneralbancorp.com, to access free of charge the Bancorp's Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports, all of which are made available as soon as reasonably practicable after we electronically file such material with or furnish it to the SEC. The content of our website is not incorporated into and is not part of this Annual Report on Form 10-K. In addition, you can write to us to obtain a free copy of any of those reports at Cathay General Bancorp, 9650 Flair Drive, El Monte, California 91731, Attn: Investor Relations. These reports are also available through the SEC's Public Reference Room, located at 100 F Street NE, Washington, DC 20549 and online at the SEC's website, located at www.sec.gov. Investors can obtain information about the operation of the SEC's Public Reference Room by calling 1-800-SEC-0330.

## Regulation and Supervision

## General

The Bancorp and its bank and non-bank subsidiaries are subject to extensive regulation under federal and state statutes and regulations that, among other things, may affect our cost of doing business and financial performance, limit permissible activities and expansion or impact the competitive balance between us and other financial services providers. These statutes and regulations are intended primarily for the protection of depositors and the FDIC's Deposit Insurance Fund, and secondarily for the stability of the U.S. banking system and are not intended for the benefit of stockholders of financial institutions.

The following discussion of certain statutes and regulations to which the Bancorp and the Bank are subject is a summary and does not purport to be complete nor does it address all applicable statutes and regulations. This discussion is qualified in its entirety by reference to the full statutes and regulations.

## Bank Holding Company and Bank Regulation

The Bancorp is a bank holding company within the meaning of the Bank Holding Company Act and is registered as such with the Federal Reserve. The Bancorp is also a bank holding company within the meaning of Section 3700 of the California Financial Code. Therefore, the Bancorp and any of its subsidiaries are subject to examination by, and may be required to file reports with, the DBO. DBO approvals are also required for bank holding companies to acquire control of banks. As a California commercial bank, the deposits of which are insured by the FDIC, the Bank is subject to regulation, supervision, and regular examination by the DBO and by the FDIC, as the Bank's primary federal regulator, and must additionally comply with certain applicable regulations of the Federal Reserve.

The wide range of requirements and restrictions contained in federal and state banking laws include:

- Requirements that bank holding companies and banks file periodic reports.
- Requirements that bank holding companies and banks meet or exceed minimum capital requirements (see "Capital Adequacy Requirements" below).
- Requirements that bank holding companies serve as a source of financial and managerial strength for their banking subsidiaries. In addition, the regulatory agencies have "prompt corrective action" authority to limit activities and require a limited guaranty of a required bank capital restoration plan by a bank holding company if the capital of a bank subsidiary falls below capital levels required by the regulators. (See "Source of Strength" and "Prompt Corrective Action Provisions" below.)
- Limitations on dividends payable to Bancorp stockholders. The Bancorp's ability to pay dividends is subject to legal and regulatory restrictions. A substantial portion of the Bancorp's funds to pay dividends or to pay principal and interest on our debt obligations is derived from dividends paid by the Bank. (See "Dividends" below)
- Limitations on dividends payable by bank subsidiaries. These dividends are subject to various legal and regulatory restrictions. The federal banking agencies have indicated that paying dividends that deplete a depositary institution's capital base to an inadequate level would be an unsafe and unsound banking practice. Moreover, the federal agencies have issued policy statements that provide that bank holding companies and insured banks should generally only pay dividends out of current operating earnings. (See "Dividends" below)
- Safety and soundness requirements. Banks must be operated in a safe and sound manner and meet standards applicable to internal controls, information systems, internal audit, loan documentation, credit underwriting, interest rate exposure, asset growth, and compensation, as well as other operational and management standards. These safety and soundness requirements give bank regulatory agencies significant latitude in exercising their supervisory authority and the authority to initiate informal or formal enforcement actions.
- Requirements for notice, application and approval, or non-objection of acquisitions and certain other activities conducted directly or in subsidiaries of the Bancorp or the Bank.
- Compliance with the Community Reinvestment Act ("CRA"). The CRA requires that banks help meet the credit needs in their communities, including the availability of credit to low and moderate income individuals. If the Bank fails to adequately serve its communities, restrictions may be imposed, including denials of applications for branches, for adding subsidiaries or affiliate companies, for engaging in new activities or for the merger with or purchase of other financial institutions. In its last reported examination by the FDIC in March 2016, the Bank received a CRA rating of "Satisfactory."
- Compliance with the Bank Secrecy Act, the USA Patriot Act, and other anti-money laundering laws ("AML"), and the regulations of the U.S. Treasury Department's Office of Foreign Assets Control ("OFAC"). (See "Anti-Money Laundering and OFAC Regulations" below.)
- Limitations on the amount of loans to one borrower and its affiliates and to executive officers and directors.
- Limitations on transactions with affiliates.
- Restrictions on the nature and amount of any investments in, and the ability to underwrite, certain securities.
- Requirements for opening of intra- and interstate branches.
- Compliance with truth in lending and other consumer protection and disclosure laws to ensure equal access to credit and to protect consumers in credit transactions. (See "Operations, Consumer and Privacy Compliance Laws" below.)
- Compliance with provisions of the Gramm-Leach-Bliley Act of 1999 ("GLB Act") and other federal and state laws dealing with privacy for nonpublic personal information of customers. The federal bank regulators have adopted rules limiting the ability of banks and other financial institutions to disclose non-public information about consumers to unaffiliated third parties. These limitations require disclosure of privacy policies to consumers and, in some circumstances, allow consumers to prevent disclosure of certain personal information to an unaffiliated third party. These regulations affect how consumer information is transmitted through diversified financial companies and conveyed to outside vendors.

Specific federal and state laws and regulations which are applicable to banks regulate, among other things, the scope of their business, their investments, their reserves against deposits, the timing of the availability of deposited funds, their activities relating to dividends, the nature and amount of and collateral for certain loans, servicing and foreclosing on loans, borrowings, capital requirements, certain check-clearing activities, branching, and mergers and acquisitions. California banks are also subject to statutes and regulations including Federal Reserve Regulation O and Federal Reserve Act Sections 23A and 23B and Regulation W, which restrict or limit loans or extensions of credit to "insiders," including officers, directors, and principal shareholders, and affiliates, and purchases of assets from affiliates, including parent bank holding companies, except pursuant to certain exceptions and only on terms and conditions at least as favorable to those prevailing for comparable transactions with unaffiliated parties. The Dodd-Frank Act expanded definitions and restrictions on transactions with affiliates and insiders under Sections 23A and 23B, and also lending limits for derivative transactions, repurchase agreements and securities lending, and borrowing transactions.

The Bank operates branches and/or loan production offices in California, New York, Washington, Illinois, Texas, Maryland, Massachusetts, Nevada, and New Jersey. While the DBO remains the Bank's primary state regulator, the Bank's operations in these jurisdictions are subject to examination and supervision by local bank regulators, and transactions with customers in those jurisdictions are subject to local laws, including consumer protection laws. The Bank also operates a branch in Hong Kong and a representative office in Beijing, in Shanghai, and in Taipei. The operations of these foreign offices and branches (and limits on the scope of their activities) are subject to local law and regulatory authorities in addition to regulation and supervision by the DBO and the Federal Reserve.

## The Dodd-Frank Wall Street Reform and Consumer Protection Act

The Dodd-Frank Act financial reform legislation, adopted in July 2010, significantly revised and expanded the rulemaking, supervisory and enforcement authority of the federal bank regulatory agencies by implementing the following changes, among others:

- new capital standards that, among other things, increase capital requirements and eliminate the treatment of trust preferred securities as Tier 1 regulatory capital for bank holding companies with assets of $\$ 15$ billion or more (our assets exceed the $\$ 15$ billion threshold and, as a result, our outstanding junior subordinated notes no longer qualify as Tier 1 capital for regulatory reporting purposes);
- restrictions on banking entities from engaging in proprietary trading, as well as having investments in, sponsoring, and maintaining relationships with hedge funds and private equity funds (commonly referred to as the "Volcker Rule");
- the establishment of the Consumer Financial Protection Bureau ("CFPB") responsible for consumer protection in the financial services industry and to examine financial institutions with $\$ 10$ billion or more in assets, such as the Company, for compliance with regulations promulgated by the CFPB;
- additional risk management and other enhanced prudential standards for larger bank holding companies;
- limitations on interchange fees charged for debit card transactions;
- the revisions in the deposit insurance assessment base for FDIC insurance and the permanent increase in coverage to $\$ 250,000$;
- the permissibility of paying interest on business checking accounts;
- the removal of barriers to interstate branching;
- required disclosure and shareholder advisory votes on executive compensation; and
- the establishment of new minimum mortgage underwriting standards for residential mortgages.

On May 24, 2018, the Economic Growth, Regulatory Relief, and Consumer Protection Act (the "Growth Act") was signed into law. Among other relief, the Growth Act:

- raises the asset threshold for annual company-run stress tests required under the Dodd-Frank Act from $\$ 10$ billion to $\$ 100$ billion;
- raises the enhanced prudential supervision threshold for bank holding companies from $\$ 50$ billion to $\$ 250$ billion in total consolidated assets and the asset threshold for risk committee requirements for publicly traded bank holding companies from $\$ 10$ billion to $\$ 50$ billion; and
- implements other changes that may help reduce regulatory burden for the Company and other mid-sized financial institutions, such as (i) prohibiting federal banking regulators from imposing higher capital standards on High Volatility Commercial Real Estate exposures unless they are for acquisition, development or construction; (ii) requiring amendments to the Liquidity Coverage Ratio Rule to treat all qualifying investmentgrade, liquid and readily-marketable municipal securities as level 2B liquid assets, making them potentially more attractive alternative investments; (iv) directing the CFPB to provide guidance on certain disclosure requirements for mortgage assumption transactions and construction-to-permanent home loans; and (iv) not require appraisals for certain transactions in rural areas valued at less than $\$ 400,000$.

On December 18, 2018, the FDIC issued a notice of proposed rulemaking that would revise the FDIC's requirements for stress testing by FDIC supervised institutions, such as the Bank, to conform with the Growth Act by raising the minimum threshold for applicability from $\$ 10$ billion to $\$ 250$ billion. Notwithstanding these amendments to the stress testing requirements, the federal banking agencies indicated through interagency guidance that the capital planning and risk management practices of institutions with total assets less than $\$ 100$ billion would continue to be reviewed through the regular supervisory process. Although we will continue to monitor our capital consistent with the safety and soundness expectations of the federal regulators, we expect to stop the Dodd-Frank Act-imposed stress testing as a result of the legislative and regulatory amendments.

Notwithstanding the regulatory relief provided for mid-size financial institutions such as the Company that has resulted from the Growth Act, many provisions of the Dodd-Frank Act and its implementing regulations remain in place and will continue to result in additional operating and compliance costs that could have a material adverse effect on our business, financial condition, and results of operation. In addition to the Growth Act, various pending bills in Congress may offer some regulatory relief for mid-sized banking organizations of our size. We are uncertain about the scope, nature and timing of any regulatory relief, and its effect on us.

## Capital Adequacy Requirements

Bank holding companies and banks are subject to various regulatory capital requirements administered by state and federal banking agencies. Capital adequacy guidelines and, additionally for banks, prompt corrective action regulations (see "Prompt Corrective Action Provisions" below), involve quantitative measures of assets, liabilities, and certain off-balance sheet items calculated under regulatory accounting practices. Capital amounts and classifications are also subject to qualitative judgments by regulators about components, risk weighting, and other factors. The risk-based capital guidelines for bank holding companies and banks require capital ratios that vary based on the perceived degree of risk associated with a banking organization's operations for both transactions reported on the balance sheet as assets, such as loans, and those recorded as off-balance sheet items, such as commitments, letters of credit and recourse arrangements. The risk-based capital ratio is determined by classifying assets and certain off-balance sheet financial instruments into weighted categories, with higher levels of capital being required for those categories perceived as representing greater risks and dividing its qualifying capital by its total risk-adjusted assets and off-balance sheet items. Bank holding companies and banks engaged in significant trading activity may also be subject to the market risk capital guidelines and be required to incorporate additional market and interest rate risk components into their risk-based capital standards.

The federal bank regulatory agencies adopted final regulations in July 2013, which revised their risk-based and leverage capital requirements for banking organizations to meet requirements of the Dodd-Frank Act and to implement Basel III international agreements reached by the Basel Committee on Banking Supervision. Although many of the rules contained in these final regulations are applicable only to large, internationally active banks, most will apply on a phased in basis to all banking organizations, including the Bancorp and the Bank.

The following are among the requirements under the capital rules that became effective on January 1, 2015 (referred to herein as the "capital rules"):

- An increase in the minimum Tier 1 capital ratio from $4.00 \%$ to $6.00 \%$ of risk-weighted assets.
- A new category and a required $4.50 \%$ of risk-weighted assets ratio is established for "common equity Tier 1 " as a subset of Tier 1 capital limited to common equity.
- A minimum non-risk-based leverage ratio is set at $4.00 \%$ eliminating a $3.00 \%$ exception for higher rated banks.
- Changes in the permitted composition of Tier 1 capital to exclude trust preferred securities (other than certain grandfathered trust preferred securities issued), mortgage servicing rights and certain deferred tax assets and include unrealized gains and losses on available for sale debt and equity securities.
- A new additional capital conservation buffer of $2.5 \%$ of risk weighted assets over each of the required capital ratios (when fully phased in as of January 1, 2019) must be met to avoid limitations in the ability of the Bank to pay dividends, repurchase shares or pay discretionary bonuses. The implementation of the capital conservation buffer requirements began on January 1, 2016 at $0.625 \%$ of risk-weighted assets, increasing each year by $0.625 \%$ until fully implemented in January 2019 at $2.50 \%$ of risk-weighted assets.
- The risk-weights of certain assets for purposes of calculating the risk-based capital ratios are changed for high volatility commercial real estate acquisition, development and construction loans, certain past due non-residential mortgage loans and certain mortgage-backed and other securities exposures.
- An additional "countercyclical capital buffer" is required for larger and more complex institutions.

When fully phased-in on January 1, 2019, after taking into account the capital conservation buffer, the Bancorp and the Bank must maintain the following minimum ratios: (i) a Tier 1 leverage ratio of $4.0 \%$, (ii) a common equity Tier 1 risk-based capital ratio of $4.5 \%$, plus the capital conservation buffer, effectively resulting in a minimum common equity Tier 1 riskbased capital ratio of $7.0 \%$, (iii) a Tier 1 risk-based capital ratio of $6.0 \%$, plus the capital conservation buffer, effectively resulting in a minimum common equity Tier 1 risk-based capital ratio of $8.5 \%$, and (iv) a total risk-based capital ratio of $8.0 \%$, plus the capital conservation buffer, effectively resulting in a minimum total risk-based capital ratio of $10.5 \%$. To be considered "well capitalized," a bank holding company or bank must have the following minimum ratios: (i) a Tier 1 leverage ratio of $5.0 \%$, (ii) a common equity Tier 1 risk-based capital ratio of $6.5 \%$, (iii) a Tier 1 risk-based capital ratio of $8.0 \%$, and (iv) a total risk-based capital ratio of $10.0 \%$.

Failure to meet statutorily mandated capital guidelines or more restrictive ratios separately established for a financial institution could subject a bank or bank holding company to a variety of enforcement remedies, including issuance of a capital directive, the termination of deposit insurance by the FDIC, a prohibition on accepting or renewing brokered deposits, limitations on the rates of interest that the institution may pay on its deposits and other restrictions on its business. Significant additional restrictions can be imposed on FDIC-insured depository institutions that fail to meet applicable capital requirements under the regulatory agencies' prompt corrective action authority.

At December 31, 2018, (i) the Bancorp's and the Bank's common equity Tier 1 capital ratios were $12.43 \%$ and $13.66 \%$, respectively; (ii) their total risk-based capital ratios were, respectively, $14.15 \%$ and $14.55 \%$; (iii) their Tier 1 risk-based capital ratios were, respectively, $12.43 \%$ and $13.66 \%$; and (iv) their leverage capital ratios were, respectively, $10.83 \%$ and $11.89 \%$, all of which ratios exceeded the minimum percentage requirements to be deemed "well-capitalized" for regulatory purposes.

While the capital rules set higher regulatory capital standards for the Bancorp and the Bank, bank regulators may also continue their past policies of expecting banks to maintain additional capital beyond the new minimum requirements. The federal banking agencies may also require banks and bank holding companies subject to enforcement actions to maintain capital ratios in excess of the minimum ratios otherwise required to be deemed "well-capitalized. The implementation of the capital rules or more stringent requirements to maintain higher levels of capital or to maintain higher levels of liquid assets could adversely impact the Bancorp's net income and return on equity, restrict the ability of the Bank and/or the Bancorp to pay dividends or executive bonuses and require the raising of additional capital.

As of December 31, 2018, the Bancorp and the Bank met all applicable capital requirements under the capital rules on a fully phased-in basis if such requirements were currently in effect.

In December 2017, the Basel Committee published "Basel IV" standards to finalize the Basel III regulatory reforms. According to the Basel Committee, Basel IV is intended to, among other things, reduce variability in risk weighted assets by implementing a standardized approach for operation risk and credit risk to replace model-based approaches for certain categories of risk weighted assets, and by reducing the scope of model-based parameters and implementing exposure-level parameter floors where model-based approaches remain available. 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. The impact of Basel IV on us will depend on the manner in which it is implemented by the federal bank regulators.

## Prompt Corrective Action Provisions

The Federal Deposit Insurance Act (the "FDI Act") requires the federal bank regulatory agencies to take "prompt corrective action" with respect to a depository institution if that institution does not meet certain capital adequacy standards, including requiring the prompt submission of an acceptable capital restoration plan. Depending on the bank's capital ratios, the agencies' regulations define five categories in which an insured depository institution will be placed: well-capitalized, adequately capitalized, undercapitalized, significantly undercapitalized, and critically undercapitalized. At each successive lower capital category, an insured bank is subject to more restrictions, including restrictions on the bank's activities, operational practices or the ability to pay dividends. Based upon its capital levels, a bank that is classified as well-capitalized, adequately capitalized, or undercapitalized may be treated as though it were in the next lower capital category if the appropriate federal banking agency, after notice and opportunity for hearing, determines that an unsafe or unsound condition, or an unsafe or unsound practice, warrants such treatment.

The prompt corrective action standards were changed when the capital rules became effective on January 1, 2015. Under the new standards, in order to be considered well-capitalized, the Bank is required to have met the new common equity Tier 1 ratio of $6.5 \%$, an increased Tier 1 ratio of $8 \%$ (increased from $6 \%$ ), a total capital ratio of $10 \%$ (unchanged) and a leverage ratio of $5 \%$ (unchanged).

## Volcker Rule

In December 2013, the federal bank regulatory agencies adopted final rules that implement a part of the Dodd-Frank Act commonly referred to as the "Volcker Rule." Under these rules and subject to certain exceptions, banking entities, including the Bancorp and the Bank and its subsidiaries, are restricted from engaging in activities that are considered proprietary trading and from sponsoring or investing in certain entities, including hedge or private equity funds that are considered "covered funds." The Federal Reserve granted an extension until July 21, 2022 of the conformance period for the Bancorp to divest ownership in certain legacy investment funds that are prohibited under the rule.

Except for divesting some investments aggregating less than $\$ 2.2$ million as of December 31, 2018, we believe that the Volcker Rule will not require any material changes in our operations or business or security holdings.

## CFPB Actions

The Dodd-Frank Act provided for the creation of the CFPB as an independent entity within the Federal Reserve with broad rulemaking, supervisory, and enforcement authority over consumer financial products and services, including deposit products, residential mortgages, home-equity loans and credit cards. The CFPB's functions include investigating consumer complaints, conducting market research, rulemaking, supervising and examining bank consumer transactions, and enforcing rules related to consumer financial products and services. CFPB regulations and guidance apply to all financial institutions and banks with $\$ 10$ billion or more in assets, which are also subject to examination by the CFPB. As the Bank has more than $\$ 10$ billion in assets, it is examined for compliance with CFPB regulation by the CFPB in addition to examinations of the Bank by the FDIC and the DBO.

The CFPB has enforcement authority over unfair, deceptive or abusive act and practices ("UDAAP"). UDAAP is considered one of the most far reaching new enforcement tools at the disposal of the CFPB and covers all consumer and small business financial products or services such as deposit and lending products or services such as overdraft programs and thirdparty payroll card vendors. It is a wide-ranging regulatory net that potentially picks up the gaps not included in other consumer laws, rules and regulations. Violations of UDAAP can be found in many areas and can include advertising and marketing materials, the order of processing and paying items in a checking account or the design of client overdraft programs. The scope of coverage includes not only direct interactions with clients and prospects but also actions by third-party service providers. The Dodd-Frank Act does not prevent states from adopting stricter consumer protection standards. State regulation of financial products and potential enforcement actions could also adversely affect our business, financial condition or results of operations.

Additionally, in 2014, the CFPB adopted revisions to Regulation Z, which implement the Truth in Lending Act, pursuant to the Dodd-Frank Act, and apply to all consumer mortgages (except home equity lines of credit, timeshare plans, reverse mortgages, or temporary loans). The revisions mandate specific underwriting criteria for home loans in order for creditors to make a reasonable, good faith determination of a consumer's ability to repay and establish certain protections from liability under this requirement for "qualified mortgages" meeting certain standards. In particular, it will prevent banks from making "no doc" and "low doc" home loans, as the rules require that banks determine a consumer's ability to pay based in part on verified and documented information. We do originate certain "low doc" loans that meet specific underwriting criteria. Given the small volume of such loans, we do not believe that this regulation will have a significant impact on our operations.

## Risk Committee Framework

Pursuant to Federal Reserve Board regulations promulgated under authority of the Dodd-Frank Act, as originally adopted, as a publicly traded bank holding company with $\$ 10$ billion in assets, we were required and have established and maintained a risk committee responsible for enterprise-wide risk management practices, comprised of an independent chairman and at least one risk management expert. We expect to maintain our risk committee, although we are no longer required to have a risk committee under the Growth Act unless and until we reach $\$ 50$ billion in assets. The risk committee approves and periodically reviews the risk-management policies of the bank holding company's global operations and oversees the operations of its risk-management framework. The bank holding company's risk-management framework must be commensurate with its structure, risk profile, complexity, activities and size. At a minimum, the framework must include policies and procedures establishing risk-management governance and providing for adequate risk-control infrastructure for the bank holding company's operations. In addition, the framework must include processes and systems to monitor compliance with the foregoing policies and procedures, including processes and systems designed to identify and report riskmanagement risks and deficiencies; ensure effective implementation of actions to address emerging risks and riskmanagement deficiencies; designate managerial and staff responsibility for risk management; ensure the independence of the risk-management function; and integrate risk-management and associated controls with management goals and the management compensation structure.

## Interchange Fees

Under the Durbin Amendment to the Dodd-Frank Act, the Federal Reserve adopted rules establishing standards for assessing whether the interchange fees that may be charged with respect to certain electronic debit transactions are "reasonable and proportional" to the costs incurred by issuers for processing such transactions.

Interchange fees, or "swipe" fees, are charges that merchants pay to us and other card-issuing banks for processing electronic payment transactions. Under the final rules, the maximum permissible interchange fee is equal to no more than 21 cents plus 5 basis points of the transaction value for many types of debit interchange transactions. The Federal Reserve also adopted a rule to allow a debit card issuer to recover 1 cent per transaction for fraud prevention purposes if the issuer complies with certain fraud-related requirements required by the Federal Reserve. The Federal Reserve also has rules governing routing and exclusivity that require issuers to offer two unaffiliated networks for routing transactions on each debit or prepaid product.

## Anti-Money Laundering and OFAC Regulations

A major focus of governmental policy on financial institutions in recent years has been aimed at combating money laundering and terrorist financing through AML and OFAC regulations. AML laws and regulations, including the Bank Secrecy Act and the U.S.A. Patriot Act, require us to assist U.S. government agencies in detecting and preventing money laundering and other illegal acts by maintaining policies, procedures and controls designed to detect and report money laundering, terrorist financing, and other suspicious activity. The AML program must include, at a minimum, a designated compliance officer, written policies, procedures and internal controls, training of appropriate personnel and independent testing of the program, and a customer identification program.

OFAC administers and enforces economic and trade sanctions against targeted foreign countries and regimes, under authority of various laws, including designated foreign countries, nationals and others. OFAC publishes lists of specially designated targets and countries. We and our bank are responsible for, among other things, blocking accounts of, and transactions with, such targets and countries, prohibiting unlicensed trade and financial transactions with them and reporting blocked transactions after their occurrence.

Regulatory authorities routinely examine financial institutions for compliance with these obligations, and any failure by us to maintain and implement adequate programs to combat money laundering and terrorist financing, or to comply with all of the relevant laws or regulations, could have serious legal and reputational consequences, including causing applicable bank regulatory authorities not to approve merger or acquisition transactions when regulatory approval is required or to prohibit such transactions even if approval is not required. Regulatory authorities have imposed cease and desist orders and civil money penalties against institutions found to be violating these obligations.

## Additional Restrictions on Bancorp and Bank Activities

Subject to prior notice or Federal Reserve approval, bank holding companies may generally engage in, or acquire shares of companies engaged in, activities determined by the Federal Reserve to be so closely related to banking or managing or controlling banks as to be a proper incident thereto. Bank holding companies which elect and retain "financial holding company" status pursuant to the GLB Act may engage in these nonbanking activities and broader securities, insurance, merchant banking and other activities that are determined to be "financial in nature" or are incidental or complementary to activities that are financial in nature without prior Federal Reserve approval. Pursuant to the GLB Act and the Dodd-Frank Act, in order to elect and retain financial holding company status, a bank holding company and all depository institution subsidiaries of a bank holding company must be well capitalized and well managed, and, except in limited circumstances, depository subsidiaries must be in satisfactory compliance with the CRA. Failure to sustain compliance with these requirements or correct any non-compliance within a fixed time period could lead to divestiture of subsidiary banks or require all activities to conform to those permissible for a bank holding company. The Bancorp has not elected financial holding company status and does not believe it has engaged in any activities determined by the Federal Reserve to be financial in nature or incidental or complementary to activities that are financial in nature, which would, in the absence of financial holding company status, require notice or Federal Reserve approval.

Pursuant to the FDI Act and the California Financial Code, California state chartered commercial banks may generally engage in any activity permissible for national banks. Therefore, the Bank may form subsidiaries to engage in the many socalled "closely related to banking" or "nonbanking" activities commonly conducted by national banks in operating subsidiaries or subsidiaries of bank holding companies. Further, pursuant to the GLB Act, California banks may conduct certain "financial" activities in a subsidiary to the same extent as a national bank, provided the bank is and remains "wellcapitalized," "well-managed" and in satisfactory compliance with the CRA. The Bank currently has no financial subsidiaries.

## Source of Strength

Federal Reserve policy and federal law require bank holding companies to act as a source of financial and managerial strength to their subsidiary banks. Under this requirement, Bancorp is expected to commit resources to support the Bank, including at times when Bancorp may not be in a financial position to provide such resources, and it may not be in Bancorp's, or Bancorp's stockholders' or creditors', best interests to do so. In addition, any capital loans Bancorp makes to the Bank are subordinate in right of payment to depositors and to certain other indebtedness of the Bank. In the event of Bancorp's bankruptcy, any commitment by Bancorp to a federal bank regulatory agency to maintain the capital of the Bank will be assumed by the bankruptcy trustee and entitled to priority of payment.

## Enforcement Authority

The federal and California regulatory structure gives the bank regulatory agencies extensive discretion in connection with their supervisory and enforcement activities and examination policies, including policies with respect to the classification of assets and the establishment of adequate loan loss reserves for regulatory purposes. The regulatory agencies have adopted guidelines to assist in identifying and addressing potential safety and soundness concerns before an institution's capital becomes impaired. The guidelines establish operational and managerial standards generally relating to: (i) internal controls, information systems, and internal audit systems; (ii) loan documentation; (iii) credit underwriting; (iv) interest-rate exposure; (v) asset growth and asset quality; (vi) loan concentration; and (vii) compensation, fees, and benefits. Further, the regulatory agencies have adopted safety and soundness guidelines for asset quality and for evaluating and monitoring earnings to ensure that earnings are sufficient for the maintenance of adequate capital and reserves.

The federal and California regulatory structure subjects the Bancorp and the Bank to regular examination by their respective regulatory agencies, which results in examination reports and ratings that, although not publicly available, can affect the conduct and growth of our businesses. These examinations consider not only compliance with applicable laws and regulations, but also capital levels, asset quality and risk, management ability and performance, earnings, liquidity, and various other factors. If, as a result of an examination, the DBO or the FDIC should determine that the financial condition, capital resources, asset quality, earnings prospects, management, liquidity, or other aspects of the Bank's operations are unsatisfactory or that the Bank or its management is violating or has violated any law or regulation, the DBO and the FDIC have residual authority to:

- Require affirmative action to correct any conditions resulting from any violation or practice;
- Direct an increase in capital and the maintenance of higher specific minimum capital ratios, which may preclude the Bank from being deemed "well-capitalized" and restrict its ability to accept certain brokered deposits, among other things;
- Restrict the Bank's growth geographically, by products and services, or by mergers and acquisitions;
- Issue, or require the Bank to enter into, informal or formal enforcement actions, including required Board resolutions, memoranda of understanding, written agreements and consent or cease and desist orders or prompt corrective action orders to take corrective action and cease unsafe and unsound practices;
- Require prior approval of senior executive officer or director changes, remove officers and directors, and assess civil monetary penalties; and
- Terminate FDIC insurance, revoke the Bank's charter, take possession of, close and liquidate the Bank, or appoint the FDIC as receiver.

The Federal Reserve has similar enforcement authority over bank holding companies and commonly takes parallel action in conjunction with actions taken by a subsidiary bank's regulators.

In the exercise of their supervisory and examination authority, the regulatory agencies have recently emphasized corporate governance, stress testing, enterprise risk management and other board responsibilities; anti-money laundering compliance and enhanced high-risk customer due diligence; vendor management; cyber security and fair lending and other consumer compliance obligations.

## Deposit Insurance

The FDIC is an independent federal agency that insures deposits, up to prescribed statutory limits, of federally insured banks and savings institutions and safeguards the safety and soundness of the banking and savings industries. The FDIC insures our customer deposits through the Deposit Insurance Fund (the "DIF") up to prescribed limits of $\$ 250,000$ for each depositor pursuant to the Dodd-Frank Act. The amount of FDIC assessments paid by each DIF member institution is based on its relative risk of default as measured by regulatory capital ratios and other supervisory factors. As an institution with $\$ 10$ billion or more in assets, the FDIC uses a performance score and a loss-severity score to calculate an initial assessment rate for the Bank. In calculating these scores, the FDIC uses the Bank's capital level and regulatory supervisory ratings and certain financial measures to assess the Bank's ability to withstand asset-related stress and funding-related stress. The FDIC also has the ability to make discretionary adjustments to the total score based upon significant risk factors that are not adequately captured in the calculations. In addition to ordinary assessments described above, the FDIC has the ability to impose special assessments in certain instances.

All FDIC-insured institutions are also required to pay assessments to the FDIC to fund interest payments on bonds issued by the Financing Corporation ("FICO"), an agency of the federal government established to recapitalize the predecessor to the DIF. These assessments will continue until the FICO bonds mature in 2017 through 2019.

Pursuant to the Dodd-Frank Act, the FDIC has established $2.0 \%$ as the designated reserve ratio (DRR), that is, the ratio of the DIF to insured deposits. The FDIC has adopted a plan under which it will meet the statutory minimum DRR of $1.35 \%$ (formerly $1.15 \%$ ) by September 30, 2020, the deadline imposed by the Dodd-Frank Act. The Dodd-Frank Act requires the FDIC to impose surcharges on institutions with assets in excess of $\$ 10$ billion to offset the effect of the increase in the statutory minimum DRR to $1.35 \%$. According to the FDIC, the DRR reached $1.36 \%$ of total deposits as of September 30, 2018, and, as a result, the surcharges have ceased.

We are generally unable to control the amount of assessments that we are required to pay for FDIC insurance. If there are additional bank or financial institution failures or if the FDIC otherwise determines, we may be required to pay even higher FDIC assessments than the recently increased levels. These increases in FDIC insurance assessments may have a material and adverse effect on our earnings and could have a material adverse effect on the value of, or market for, our common stock.

Under the FDI Act, 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.

## Dividends

Holders of the Bancorp's common stock are entitled to receive dividends as and when declared by the board of directors out of funds legally available therefore under the laws of the State of Delaware. Delaware corporations such as the Bancorp may make distributions to their stockholders out of their surplus, or in case there is no surplus, out of their net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year. However, dividends may not be paid out of a corporation's net profits if, after the payment of the dividend, the corporation's capital would be less than the capital represented by the issued and outstanding stock of all classes having a preference upon the distribution of assets.

It is the Federal Reserve's policy that bank holding companies should generally pay dividends on common stock only out of income available over the past year, and only if prospective earnings retention is consistent with the organization's expected future needs and financial condition. It is also the Federal Reserve's policy that bank holding companies should not maintain dividend levels that undermine their ability to be a source of strength to their banking subsidiaries. The Federal Reserve also discourages dividend policy payment ratios that are at maximum allowable levels unless both asset quality and capital are very strong.

The terms of our Junior Subordinated Notes also limit our ability to pay dividends on our common stock. If we are not current on our payment of interest on our Junior Subordinated Notes, we may not pay dividends on our common stock. The amount of future dividends by the Bancorp will depend on our earnings, financial condition, capital requirements and other factors, and will be determined by our board of directors in accordance with the capital management and dividend policy.

The Bank is a legal entity that is separate and distinct from its holding company. The Bancorp is dependent on the performance of the Bank for funds which may be received as dividends from the Bank for use in the operation of the Bancorp and the ability of the Bancorp to pay dividends to stockholders. Future cash dividends by the Bank will also depend upon management's assessment of future capital requirements, contractual restrictions, and other factors. The capital rules restrict dividends by the Bank if the capital conservation buffer is not achieved.

The power of the board of directors of the Bank to declare cash dividends to the Bancorp is subject to California law, which restricts the amount available for cash dividends to the lesser of a bank's retained earnings or net income for its last three fiscal years (less any distributions to stockholders made during such period). Where the above test is not met, cash dividends may still be paid, with the prior approval of the DBO, in an amount not exceeding the greatest of (i) retained earnings of the Bank; (ii) the net income of the Bank for its last fiscal year; or (iii) the net income of the Bank for its current fiscal year. Future cash dividends by the Bank will also depend upon management's assessment of future capital requirements, contractual restrictions, and other factors.

The Bank must comply with numerous federal and state anti-money laundering and consumer protection statutes and implementing regulations, including the USA Patriot Act, the Bank Secrecy Act, the Foreign Account Tax Compliance Act, the CRA, the Fair Credit Reporting Act, as amended by the Fair and Accurate Credit Transactions Act, the Equal Credit Opportunity Act, the Truth in Lending Act, the Fair Housing Act, the Home Mortgage Disclosure Act, the Real Estate Settlement Procedures Act, the National Flood Insurance Act, the California Homeowner Bill of Rights and various federal and state privacy protection laws. The Bank and the Company are also subject to federal and state laws prohibiting unfair or fraudulent business practices, untrue or misleading advertising, and unfair competition. Some of these laws are further discussed below:

The Equal Credit Opportunity Act ("ECOA") generally prohibits discrimination in any credit transaction, whether for consumer or business purposes, on the basis of race, color, religion, national origin, sex, marital status, age, receipt of income from public assistance programs, or good faith exercise of any rights under the Consumer Credit Protection Act.

The Truth in Lending Act ("TILA") is designed to ensure that credit terms are disclosed in a meaningful way so that consumers may compare credit terms more readily and knowledgeably. As a result of the TILA, all creditors must use the same credit terminology to express rates and payments, including the annual percentage rate, the finance charge, the amount financed, the total of payments and the payment schedule, among other things.

The Fair Housing Act ("FH Act") regulates many practices, including making it unlawful for any lender to discriminate in its housing-related lending activities against any person because of race, color, religion, national origin, sex, handicap or familial status. A number of lending practices have been found by the courts to be, or may be considered, illegal under the FH Act, including some that are not specifically mentioned in the FH Act itself.

The Home Mortgage Disclosure Act ("HMDA") grew out of public concern over credit shortages in certain urban neighborhoods and provides public information that will help show whether financial institutions are serving the housing credit needs of the neighborhoods and communities in which they are located. The HMDA also includes a "fair lending" aspect that requires the collection and disclosure of data about applicant and borrower characteristics as a way of identifying possible discriminatory lending patterns and enforcing anti-discrimination statutes.

Finally, the Real Estate Settlement Procedures Act ("RESPA") requires lenders to provide borrowers with disclosures regarding the nature and cost of real estate settlements. Also, RESPA prohibits certain abusive practices, such as kickbacks, and places limitations on the amount of escrow accounts. Penalties under the above laws may include fines, reimbursements and other civil money penalties.

Due to heightened regulatory concern related to compliance with the CRA, TILA, FH Act, ECOA, HMDA and RESPA generally, the Bank may incur additional compliance costs or be required to expend additional funds for investments in its local community.

The Federal Reserve and other bank regulatory agencies also have adopted guidelines for safeguarding confidential, personal customer information. These guidelines require financial institutions to create, implement and maintain a comprehensive written information security program designed to ensure the security and confidentiality of customer information, protect against any anticipated threats or hazards to the security or integrity of such information and protect against unauthorized access to or use of such information that could result in substantial harm or inconvenience to any customer. Financial institutions are also required to implement policies and procedures regarding the disclosure of nonpublic personal information about consumers to non-affiliated third parties. In general, financial institutions must provide explanations to consumers on policies and procedures regarding the disclosure of such nonpublic personal information and, except as otherwise required by law, prohibits disclosing such information. The Bank has adopted a customer information security and privacy program to comply with such requirements.

Operations, consumer and privacy compliance laws and regulations also mandate certain disclosure and reporting requirements and regulate the manner in which financial institutions must deal with customers when taking deposits, making loans, collecting loans, and providing other services. Failure to comply with these laws and regulations can subject the Bank to lawsuits and penalties, including enforcement actions, injunctions, fines or criminal penalties, punitive damages to consumers, and the loss of certain contractual rights.

In May 2018, the European Union ("EU") adopted a comprehensive general data privacy regulation ("GDPR") that, among other things, implements greater review of data processing activities and higher fines and sanctions for noncompliance with data protection legislation. The GDPR also extends the territory of EU privacy rules to non-EU organizations that offer goods or services to or monitor EU citizen behaviors and sets forth compliance obligations and penalties for noncompliance. We believe the applicability of the GDPR to us is minimal since we do not offer good or services to EU residents or monitor their behaviors. Other foreign, federal, state or local governments, including in states and countries which we do business, may try to implement similar or other privacy legislation, which, among other effects, could result in different privacy standards for different geographical regions, restrict our ability to do business and increase our costs of doing business.

## Federal Home Loan Bank System

The Bank is a member of the FHLB of San Francisco. Among other benefits, each FHLB serves as a reserve or central bank for its members within its assigned region. Each FHLB is financed primarily from the sale of consolidated obligations of the FHLB system. Each FHLB makes available loans or advances to its members in compliance with the policies and procedures established by the board of directors of the individual FHLB. Each member of the FHLB of San Francisco is required to own stock in an amount equal to the greater of (i) a membership stock requirement with an initial cap of $\$ 15$ million ( $100 \%$ of "membership asset value" as defined), or (ii) an activity based stock requirement (based on a percentage of outstanding advances). There can be no assurance that the FHLB will pay dividends at the same rate it has paid in the past, or that it will pay any dividends in the future.

## Impact of Monetary Policies

The earnings and growth of the Bank are largely dependent on its ability to maintain a favorable differential or spread between the yield on its interest-earning assets and the rates paid on its deposits and other interest-bearing liabilities. As a result, the Bank's performance is influenced by general economic conditions, both domestic and foreign, the monetary and fiscal policies of the federal government, and the policies of the regulatory agencies. The Federal Reserve implements national monetary policies (with objectives such as seeking to curb inflation and combat recession) by its open-market operations in U.S. government securities, by adjusting the required level of reserves for financial institutions subject to its reserve requirements, and by varying the discount rate applicable to borrowings by banks from the Federal Reserve Banks. The actions of the Federal Reserve in these areas influence the growth of bank loans, investments and deposits, and also affect interest rates charged on loans and deposits. The nature and impact of any future changes in monetary policies cannot be predicted.

## Securities and Corporate Governance

The Bancorp is subject to the disclosure and regulatory requirements of the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended, both as administered by the SEC. As a company listed on the NASDAQ Global Select Market, the Company is subject to NASDAQ listing standards for listed companies. The Bancorp is also subject to the Sarbanes-Oxley Act of 2002, provisions of the Dodd-Frank Act, and other federal and state laws and regulations which address, among other matters, required executive certification of financial presentations, corporate governance requirements for board audit and compensation committees and their members, and disclosure of controls and procedures and internal control over financial reporting, auditing and accounting, executive compensation, and enhanced and timely disclosure of corporate information. NASDAQ has also adopted corporate governance rules, which are intended to allow stockholders and investors to more easily and efficiently monitor the performance of companies and their directors. Under the Sarbanes-Oxley Act, management and the Bancorp's independent registered public accounting firm are required to assess the effectiveness of the Bancorp's internal control over financial reporting as of December 31, 2018. These assessments are included in Part II — Item 9A - "Controls and Procedures."

Guidelines adopted by the federal banking agencies pursuant to the FDI Act 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 stockholder. In June 2010, the federal banking agencies issued comprehensive guidance on incentive compensation policies intended to ensure that the incentive compensation policies of banking organizations do not undermine the safety and soundness of such organizations by encouraging excessive risk-taking.

In addition, the Dodd-Frank Act requires the federal bank regulatory agencies and the SEC to establish joint regulations or guidelines prohibiting certain incentive-based payment arrangements. These regulators must establish regulations or guidelines requiring enhanced disclosure to regulators of incentive-based compensation arrangements. The agencies proposed such regulations in April 2011, but the regulations have not been finalized. In April 2016, the agencies published a notice of proposed rulemaking further revising the incentive-based compensation standards originally proposed in 2011. Similar to the 2011 proposed rule, the 2016 proposed rule would prohibit financial institutions with at least $\$ 1$ billion in consolidated assets from establishing or maintaining incentive-based compensation arrangements that encourage inappropriate risk by providing any executive officer, employee, director or principal shareholder who is a covered person with excessive compensation, fees or benefits or that could lead to material financial loss to the covered institution. It cannot be predicted whether, or in what form, any such proposed compensation rules may be enacted, particularly in light of the stated intention of the administration of U.S. President Donald J. Trump to curtail the Dodd-Frank Act.

The scope, content and application of the U.S. banking regulators' policies on incentive compensation continue to evolve. It cannot be determined at this time whether compliance with such policies will adversely affect the ability of the Bancorp and the Bank to hire, retain and motivate key employees.

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

## Audit Requirements

The Bank is required to have an annual independent audit, alone or as a part of its bank holding company's audit, and to prepare all financial statements in accordance with U.S. generally accepted accounting principles. The Bank and the Bancorp are also each required to have an audit committee comprised entirely of independent directors. As required by NASDAQ, the Bancorp has certified that its audit committee has adopted formal written charters and meets the requisite number of directors, independence, and other qualification standards. As such, among other requirements, the Bancorp must maintain an audit committee that includes members with banking or related financial management expertise, has access to its own outside counsel, and does not include members who are large customers of the Bank. In addition, because the Bank has more than $\$ 3$ billion in total assets, it is subject to the FDIC requirements for audit committees of large institutions.

## Regulation of Non-Bank Subsidiaries

Non-bank subsidiaries are subject to additional or separate regulation and supervision by other state, federal and selfregulatory bodies. Additionally, any foreign-based subsidiaries would also be subject to foreign laws and regulations.

## Pending Legislation and Future Initiatives

Certain pending legislation, and future initiatives that may be proposed or introduced before Congress, the California Legislature, and other governmental bodies, if enacted, may further alter the structure, regulation, and competitive relationship among financial institutions and may subject us to increased supervision and disclosure and reporting requirements. In addition, the various bank regulatory agencies often adopt new rules and regulations and policies to implement and enforce existing legislation. It cannot be predicted whether, or in what form, any such legislation or regulatory changes in policy may be enacted or the extent to which the business of the Bank would be affected thereby. The outcome of examinations, any litigation, or any investigations initiated by state or federal authorities also may result in necessary changes in our operations and increased compliance costs.

## Item 1A. Risk Factors.

We describe below the material risks that management believes affect or could affect us. Understanding these risks is important to understanding any statement in this Annual Report and to evaluating an investment in our common stock. You should carefully read and consider the risks and uncertainties described below together with all of the other information included or incorporated by reference in this Annual Report before you make any decision regarding an investment in our common stock. You should also consider the information set forth above under "Forward Looking Statements." The risks described below are not the only ones facing our business. Additional risks that management is not aware of or focused on or that management currently deems immaterial may also impair our business operations. This Annual Report is qualified in its entirety by these risk factors.

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

## Unfavorable or uncertain economic and market conditions can adversely affect our industry and business.

Our financial performance generally, and the ability of borrowers to pay interest on and repay the principal of outstanding loans and the value of the collateral securing those loans, as well as demand for loans and other products and services we offer, is highly dependent upon the business and economic conditions in the markets in which we operate and in the United States as a whole. Unfavorable or uncertain economic and market conditions could lead to credit quality concerns related to repayment ability and collateral protection as well as reduced demand for the products and services we offer. In recent years there has been gradual improvement in the U.S. economy as evidenced by a rebound in the housing market, lower unemployment and higher equities markets; however, economic growth appears to be slowing, financial market volatility has increased and opinions vary on the strengthen and direction of the economy. Uncertainties also have arisen regarding changes to U.S. trade policies and tariffs and reactions to changes by U.S. trading partners. These changes and any other trade restrictions on products and materials that our customers import or export could cause the prices of their products to increase, which could reduce demand for such products, or reduce customer margins, and adversely impact their financial results and ability to service debt, which, in turn, could adversely affect our financial condition and results of operations. In addition, economic growth in international markets also appears to be slowing, particularly in China and Europe, which also may impact the economy and financial markets here in the United States. Factors related to inflation, recession, unemployment, volatile interest rates, changes in trade policies, international conflicts, real estate values, energy prices, state and local municipal budget deficits, consumer confidence level, government spending and any government shutdowns, the U.S. national debt and other factors outside of our control also may assert economic pressures on consumers and businesses and adversely affect our business, financial condition, results of operations and stock price. We may face the following risks, among others, in connection with these events:

- Unfavorable market conditions can result in a deterioration in the credit quality of our borrowers and the demand for our products and services, an increase in the number of loan delinquencies, defaults and charge-offs, additional provisions for loan losses, adverse asset values and an overall material adverse effect on the quality of our loan portfolio.
- Economic pressure on consumers and uncertainty regarding continuing economic improvement may result in changes in consumer and business spending, borrowing and saving habits. Such conditions could have a material adverse effect on the credit quality of our loans or our business, financial condition or results of operations.
- The banking industry remains heavily regulated, and notwithstanding the stated intent of the Trump administration to seek to reduce governmental regulations, changes by Congress or federal regulatory agencies to the banking and financial institutions regulatory regime and heightened legal standards and regulatory requirements may continue to be adopted in the future. Compliance with such regulation may increase our costs and limit our ability to pursue business opportunities.
- The process we use to estimate losses inherent in our credit exposure requires difficult, subjective, and complex judgments, including qualitative factors that pertain to economic conditions and how these economic conditions might impair the ability of our borrowers to repay their loans. The level of uncertainty concerning economic conditions may adversely affect the accuracy of our estimates which may, in turn, impact the reliability of the process.
- The value of the portfolio of investment securities that we hold may be adversely affected by increasing interest rates and defaults by debtors.


## Economic conditions in California and the other markets in which we operate may adversely affect our business.

Our banking operations are concentrated primarily in California, and secondarily in New York, Washington, Illinois, Texas, Maryland, Massachusetts, Nevada, New Jersey, and Hong Kong. The economic conditions in these local markets may be different from, and in some instances worse than, the economic conditions in the United States as a whole. Adverse economic conditions in these regions in particular could impair borrowers' ability to service their loans, decrease the level and duration of deposits by customers, decrease demand for our loans and other services and erode the value of loan collateral. These conditions include the effects of the general decline in real estate sales and prices in many markets across the United States; declines in economic growth, business activity or investor or business confidence; limitations on the availability or increases in the cost of credit and capital; increases in inflation or interest rates; high unemployment; natural disasters; state or local government insolvency or budget disputes; changes in taxes, trade policies and other government regulations and polices; or a combination of these or other factors. These conditions could increase the amount of our non-performing assets and have an adverse effect on our efforts to collect our non-performing loans or otherwise liquidate our non-performing assets (including other real estate owned) on terms favorable to us, if at all, and could also cause a decline in demand for our products and services, or a lack of growth or a decrease in deposits, any of which may cause us to incur losses, adversely affect our capital, and hurt our business.

## We may be required to make additional provisions for loan losses and charge off additional loans in the future, which could adversely affect our results of operations.

At December 31, 2018, our allowance for loan losses totaled $\$ 122.4$ million and we had net recoveries of $\$ 3.6$ million for 2018. Although economic conditions in the real estate market in portions of Los Angeles, San Diego, Riverside, and San Bernardino counties and the Central Valley of California where many of our commercial real estate and construction loan customers are based, have improved, the economic recovery in these areas of California is uneven and in some areas rather slow, with relatively high and persistent unemployment, and economic growth appears to have slowed. Moreover, rising interest rates may adversely affect real estate sales and the refinancing of existing real estate loans. As of December 31, 2018, we had approximately $\$ 7.3$ billion in commercial real estate and construction loans. Any deterioration in the real estate market generally and in the commercial real estate and residential building segments in particular could result in additional loan charge-offs and provisions for loan losses in the future, which could have a material adverse effect on our financial condition, net income, and capital.

## The allowance for credit losses is an estimate of probable credit losses. Actual credit losses in excess of the estimate could adversely affect our results of operations and capital.

A significant source of risk arises from the possibility that we could sustain losses because borrowers, guarantors, and related parties may fail to perform in accordance with the terms of their loans and leases. The underwriting and credit monitoring policies and procedures that we have adopted to address this risk may not prevent unexpected losses that could have a material adverse effect on our business, financial condition, results of operations, and cash flows. The allowance for credit losses is based on management's estimate of the probable losses from our credit portfolio. If actual losses exceed the estimate, the excess losses could adversely affect our results of operations and capital. Such excess losses could also lead to larger allowances for credit losses in future periods, which could in turn adversely affect results of operations and capital in those periods. If economic conditions differ substantially from the assumptions used in the estimate or adverse developments arise with respect to our credits, future losses may occur, and increases in the allowance may be necessary. In addition, various regulatory agencies, as an integral part of their examination process, periodically review the adequacy of our allowance. These agencies may require us to establish additional allowances based on their judgment of the information available at the time of their examinations. No assurance can be given that we will not sustain credit losses in excess of present or future levels of the allowance for credit losses.

## We are subject to extensive laws, regulations and supervision, and may become subject to additional laws, regulations and supervision that may be enacted and that could limit or restrict our activities, hamper our ability to increase our assets and earnings, and materially and adversely affect our profitability.

We operate in a highly regulated industry and are or may become subject to regulation by federal, state, and local governmental authorities and various laws, regulations, regulatory guidelines, and judicial and administrative decisions imposing requirements or restrictions on part or all of our operations, capitalization, payment of dividends, mergers and acquisitions, investments, loans and interest rates charged, interest rates paid on deposits, and locations of offices. We also must comply with numerous federal anti-money laundering, tax withholding and reporting, and consumer protection statutes and regulations. A considerable amount of management time and resources have been devoted to the oversight of, and the development and implementation of controls and procedures relating to, compliance with these laws and regulations, and we expect that significant time and resources will be devoted to compliance in the future. These laws and regulations mandate certain disclosure and reporting requirements and regulate the manner in which we must deal with our customers when taking deposits, making loans, collecting loans, and providing other services. We also are, or may become subject to, examination, supervision, and additional comprehensive regulation by various federal, state, and local authorities with regard to compliance with these laws and regulations.

Because our business is highly regulated, the laws, rules, regulations, and supervisory guidance and policies applicable to us are subject to regular modification and change. Perennially, various laws, rules and regulations are proposed, which, if adopted, could impact our operations, increase our capital requirements or substantially restrict our growth and adversely affect our ability to operate profitably by making compliance much more difficult or expensive, restricting our ability to originate or sell loans, or further restricting the amount of interest or other charges or fees earned on loans or other products. In addition, further regulation could increase the assessment rate we are required to pay to the FDIC, adversely affecting our earnings. Furthermore, recent changes to Regulation Z promulgated by the CFPB may make it more difficult for us to underwrite consumer mortgages and to compete with large national mortgage service providers. It is very difficult to predict the competitive impact that any such changes would have on the banking and financial services industry in general or on our business in particular. Such changes may, among other things, increase the cost of doing business, limit permissible activities, or affect the competitive balance between banks and other financial institutions. The Dodd-Frank Act instituted major changes to the banking and financial institutions regulatory regimes in light of the recent performance of and government intervention in the financial services sector. Other changes to statutes, regulations, or regulatory policies, including changes in interpretation or implementation of statutes, regulations, or policies, could affect us in substantial and unpredictable ways. Such changes could, among other things, subject us to additional costs, limit the types of financial services and products we may offer, and/or increase the ability of non-banks to offer competing financial services and products. Failure to comply with laws, regulations, or policies could result in sanctions by regulatory agencies, civil money penalties, and/or reputation damage, which could have a material and adverse effect on our business, financial condition, results of operations and the value of our common stock. See Part I - Item 1 - "Business - Regulation and Supervision."

## Additional requirements imposed by laws and regulations such as the Dodd-Frank Act could adversely affect us.

Recent government efforts to strengthen the U.S. financial system have resulted in the imposition of additional regulatory requirements, including expansive financial services regulatory reform legislation. The Dodd-Frank Act provided for sweeping regulatory changes and the establishment of strengthened capital and liquidity requirements for banks and bank holding companies, including minimum leverage and risk-based capital requirements no less than the strictest requirements in effect for depository institutions as of the date of enactment; the requirement that bank holding companies serve as a source of financial strength for their depository institution subsidiaries; enhanced regulation of financial markets, including the derivative and securitization markets, and the elimination of certain proprietary trading activities by banks; additional corporate governance and executive compensation requirements; enhanced financial institution safety and soundness regulations; revisions in FDIC insurance assessment fees; the implementation of the qualified mortgage and ability-to-repay rules for mortgage loans; and the establishment of new regulatory bodies, such as the CFPB and the Financial Services Oversight Counsel, to identify emerging systemic risks and improve interagency cooperation. Current and future legal and regulatory requirements, restrictions, and regulations, including those imposed under the Dodd-Frank Act, may adversely impact our profitability, make it more difficult to attract and retain key executives and other personnel, may have a material and adverse effect on our business, financial condition, results of operations and the value of our common stock, and may require us to invest significant management attention and resources to evaluate and make any changes required by the legislation and related regulations.

## We are subject to stringent capital requirements, including those required by Basel III.

The U.S. federal bank regulators have jointly adopted new capital requirements on banks and bank holding companies as required by the Dodd-Frank Act, which became effective on January 1, 2015, incorporate the elements of Basel Committee's Basel III accords and have the effect of raising our capital requirements and imposing new capital requirements beyond those previously required. Increased regulatory capital requirements (and the associated compliance costs) whether due to the adoption of new laws and regulations, changes in existing laws and regulations, or more expansive or aggressive interpretations of existing laws and regulations, may require us to raise additional capital, or impact our ability to pay dividends or pay compensation to our executives, which could have a material and adverse effect on our business, financial condition, results of operations and the value of our common stock. If we do not meet minimum capital requirements, we will be subject to prompt corrective action by federal bank regulatory agencies. Prompt corrective action can include progressively more restrictive constraints on operations, management and capital distributions. For additional discussion regarding our capital requirements, please see "Item 1. Business - Regulation and Supervision - Capital Adequacy Requirements" above.

## We may become subject to supervisory action by bank supervisory authorities that could have a material adverse effect on our business, financial condition, and the value of our common stock.

Under federal and state laws and regulations pertaining to the safety and soundness of financial institutions, the Federal Reserve Bank of San Francisco (the "FRB SF") has authority over the Bancorp and separately the DBO and FDIC have authority over the Bank to compel or restrict certain actions if the Bancorp or the Bank should violate any laws or regulations, if its capital should fall below adequate capital standards as a result of operating losses, or if these regulators otherwise determine that the Bancorp or the Bank have engaged in unsafe or unsound practices, including failure to exercise proper risk oversight over the many areas of the Bancorp's and the Bank's operations. These regulators, as well as the CFPB, also have authority over the Bancorp's and the Bank's compliance with various statutes and consumer protection and other regulations. Among other matters, the corrective actions that may be required of the Bancorp or the Bank following the occurrence of any of the foregoing may include, but are not limited to, requiring the Bancorp and/or the Bank to enter into informal or formal enforcement orders, including board resolutions, memoranda of understanding, written agreements, supervisory letters, commitment letters, and consent or cease and desist orders to take corrective action and refrain from unsafe and unsound practices; removing officers and directors; restricting expansion activities; assessing civil monetary penalties; and taking possession of, closing and liquidating the Bank. If we are unable to meet the requirements of any corrective actions, we could become subject to supervisory action. The terms of any such supervisory action could have a material and adverse effect on our business, financial condition, results of operations and the value of our common stock.

## We face a risk of noncompliance and enforcement action with the Bank Secrecy Act and other anti-money laundering statutes and regulations.

The Bank Secrecy Act, the USA PATRIOT Act of 2001, and other laws and regulations require financial institutions, among other duties, to institute and maintain an effective anti-money laundering program and file suspicious activity and currency transaction reports as appropriate. The federal Financial Crimes Enforcement Network is authorized to impose significant civil money penalties for violations of those requirements and has recently engaged in coordinated enforcement efforts with federal banking regulators, as well as with the U.S. Department of Justice, Drug Enforcement Administration, and Internal Revenue Service. We are also subject to increased scrutiny of compliance with the rules enforced by the Office of Foreign Assets Control and compliance with the Foreign Corrupt Practices Act. In addition, our Hong Kong Branch is subject to the anti-money laundering laws and regulations of Hong Kong. If our policies, procedures and systems are deemed deficient, we would be subject to liability, including fines and regulatory actions, which may include restrictions on our ability to pay dividends and the necessity to obtain regulatory approvals to proceed with certain aspects of our business plan, including our acquisition plans. Failure to maintain and implement adequate programs to combat money laundering and terrorist financing could also have serious reputational consequences for us. Any of these results could materially and adversely affect our business, financial condition, results of operations and the value of our common stock.

## We are subject to the CRA, fair lending and other laws and regulations, and our failure to comply with these laws and regulations could lead to material penalties.

The CRA, the Equal Credit Opportunity Act, the Fair Housing Act and other fair lending laws and regulations impose nondiscriminatory lending and other requirements on financial institutions. The U.S. Department of Justice and other federal agencies, including the FDIC and CFPB, are responsible for enforcing these laws and regulations. A successful challenge to an institution's performance under the CRA, fair lending and other compliance laws and regulations could result in a wide variety of sanctions, including the required payment of damages and civil money penalties, injunctive relief, imposition of restrictions on mergers and acquisitions activity and restrictions on expansion. Private parties may also have the ability to
challenge an institution's performance under fair lending laws in private class action litigation. The costs of defending, and any adverse outcome from, any such challenge could damage our reputation or could have a material adverse effect on our business, financial condition or results of operations.

## Our deposit insurance premiums could increase in the future, which could have a material adverse impact on future earnings and financial condition.

The FDIC insures deposits at FDIC-insured financial institutions, including the Bank. The FDIC charges insured financial institutions premiums to maintain the Deposit Insurance Fund ("DIF") at a specific level. Unfavorable economic conditions, increased bank failures and additional failures decreased the DIF. According to the FDIC, the DIF reserve ratio reached $1.36 \%$ of total deposits as of September 30, 2018, exceeding the statutorily required minimum reserved ratio of $1.35 \%$ ahead of the September 30, 2020 deadline imposed by the Dodd-Frank Act. The FDIC has, in addition, established a higher reserve ratio of $2 \%$ as a long term goal which goes beyond what is required by statute. There is no implementation deadline for the $2 \%$ ratio. The FDIC may increase the assessment rates or impose additional special assessments in the future to keep the DIF at the statutory target level. Any increase in the Bank's FDIC premiums could have an adverse effect on its financial condition and results of operations.

## Our use of third party vendors and our other ongoing third party business relationships are subject to increasing regulatory requirements and attention.

We regularly use third party vendors as part of our business. We also have substantial ongoing business relationships with other third parties. These types of third party relationships are subject to increasingly demanding regulatory requirements and attention by our federal bank regulators. Recent regulation requires us to enhance our due diligence, ongoing monitoring and control over our third party vendors and other ongoing third party business relationships. In certain cases we may be required to renegotiate our agreements with these vendors to meet these enhanced requirements, which could increase our costs. We expect that our regulators will hold us responsible for deficiencies in our oversight and control of our third party relationships and in the performance of the parties with which we have these relationships. As a result, if our regulators conclude that we have not exercised adequate oversight and control over our third party vendors or other ongoing third party business relationships or that such third parties have not performed appropriately, we could be subject to enforcement actions, including civil money penalties or other administrative or judicial penalties or fines as well as requirements for customer remediation, any of which could have a material adverse effect our business, financial condition or results of operations.

## If the Company's goodwill were determined to be impaired, it would result in a charge against earnings and thus a reduction in stockholders' equity.

The Company tests goodwill for impairment on an annual basis, or more frequently, if necessary. Quoted market prices in active markets are the best evidence of fair value and are to be used as the basis for measuring impairment, when available. Other acceptable valuation methods include present value measurements based on multiples of earnings or revenues, or similar performance measures. If the Company were to determine that the carrying amount of the goodwill exceeded its implied fair value, the Company would be required to write down the value of the goodwill on the balance sheet, adversely affecting earnings as well as capital.

## Liquidity risk could impair our ability to fund operations and jeopardize our financial condition.

Liquidity is essential to our business. An inability to raise funds through deposits, FHLB advances and other borrowings, the sale of loans, the issuance of securities and other sources could have a material adverse effect on our liquidity. Our access to funding sources in amounts adequate to finance our activities could be impaired by factors that affect us specifically or the financial services industry in general. Factors that could detrimentally impact our access to liquidity sources include a decrease in the level of our business activity due to a market downturn or adverse regulatory action against us. Deposit balances can decrease when customers perceive alternative investments as providing a better risk/return tradeoff. If customers move money out of bank deposits and into other investments, we would lose a relatively low-cost source of funds, increasing our funding costs and reducing our net interest income and net income. Our ability to acquire deposits or borrow could also be impaired by factors that are not specific to us, such as a severe disruption of the financial markets or negative views and expectations about the prospects for the financial services industry as a whole.

Based on past experience, we believe that our deposit accounts are relatively stable sources of funds. If we increase interest rates paid to retain deposits, our earnings may be adversely affected, which could have an adverse effect on our business, financial condition and results of operations. Any decline in available funding could adversely impact our ability to originate loans, invest in securities, meet our expenses, pay dividends to our stockholders or to fulfill obligations such as repaying our borrowings or meeting deposit withdrawal demands, any of which could have a material adverse impact on our liquidity, business, financial condition and results of operations.

## Our business is subject to interest rate risk, and fluctuations in interest rates could reduce our net interest income and adversely affect our business.

A substantial portion of our income is derived from the differential, or "spread," between the interest earned on loans, investment securities, and other interest-earning assets, and the interest paid on deposits, borrowings, and other interestbearing liabilities. The interest rate risk inherent in our lending, investing, and deposit taking activities is a significant market risk to us and our business. Income associated with interest earning assets and costs associated with interest-bearing liabilities may not be affected uniformly by fluctuations in interest rates. The magnitude and duration of changes in interest rates, events over which we have no control, may have an adverse effect on net interest income. Prepayment and early withdrawal levels, which are also impacted by changes in interest rates, can significantly affect our assets and liabilities. Increases in interest rates may adversely affect the ability of our floating rate borrowers to meet their higher payment obligations, which could in turn lead to an increase in non-performing assets and net charge-offs.

Generally, the interest rates on our interest-earning assets and interest-bearing liabilities do not change at the same rate, to the same extent, or on the same basis. Even assets and liabilities with similar maturities or periods of re-pricing may react in different degrees to changes in market interest rates. Interest rates on certain types of assets and liabilities may fluctuate in advance of changes in general market interest rates, while interest rates on other types of assets and liabilities may lag behind changes in general market rates. Certain assets, such as fixed and adjustable rate mortgage loans, have features that limit changes in interest rates on a short-term basis and over the life of the asset. Therefore, as interest rates begin to increase, if our floating rate interest-earning assets do not reprice faster than our interest-bearing liabilities in a rising rate environment, our net interest income and, in turn, our profitability, could be adversely affected.

We seek to minimize the adverse effects of changes in interest rates by structuring our asset-liability composition to obtain the maximum spread. We use interest rate sensitivity analysis and a simulation model to assist us in estimating the optimal asset-liability composition. However, such management tools have inherent limitations that impair their effectiveness. Moreover, the long-term effects of the Federal Reserve's unprecedented quantitative easing and tapering off are unknown, and while interest rates have begun to increase, they remain at historically low levels. There can be no assurance that we will be successful in minimizing the adverse effects of changes in interest rates.

## We have engaged in expansion through acquisitions and may consider additional acquisitions in the future, which could negatively affect our business and earnings.

We have engaged in expansion through acquisitions and may consider other acquisitions in the future. There are risks associated with any such expansion. These risks include, among others, incorrectly assessing the asset quality of a bank acquired in a particular transaction, encountering greater than anticipated costs in integrating acquired businesses, facing resistance from customers or employees, and being unable to profitably deploy assets acquired in the transaction. Additional country- and region-specific risks are associated with transactions outside the United States, including in China. To the extent we issue capital stock in connection with additional transactions, if any, these transactions and related stock issuances may have a dilutive effect on earnings per share and share ownership.

Our earnings, financial condition, and prospects after a merger or acquisition depend in part on our ability to successfully integrate the operations of the acquired company. We may be unable to integrate operations successfully or to achieve expected cost savings. Any cost savings which are realized may be offset by losses in revenues or other charges to earnings. As with any acquisition of financial institutions, there also may be business disruptions that cause us to lose customers or cause customers to remove their accounts from us and move their business to competing financial institutions.

In addition, our ability to grow may be limited if we cannot make acquisitions. We compete with other financial institutions with respect to proposed acquisitions. We cannot predict if or when we will be able to identify and attract acquisition candidates or make acquisitions on favorable terms.

## Inflation and deflation may adversely affect our financial performance.

The Consolidated Financial Statements and related financial data presented in this report have been prepared in accordance with accounting principles generally accepted in the United States. These principles require the measurement of financial position and operating results in terms of historical dollars, without considering changes in the relative purchasing power of money over time due to inflation or deflation. The primary impact of inflation on our operations is reflected in increased operating costs. Conversely, deflation will tend to erode collateral values and diminish loan quality. Virtually all of our assets and liabilities are monetary in nature. As a result, interest rates generally have a more significant impact on our performance than the general levels of inflation or deflation. Interest rates do not necessarily move in the same direction or in the same magnitude as the price of goods and services.

## Governmental monetary policies and intervention to stabilize the U.S. financial system may affect our business and are beyond our control.

The business of banking is affected significantly by the fiscal and monetary policies of the Federal government and its agencies. Such policies are beyond our control. We are particularly affected by the policies established by the Federal Reserve in relation to the supply of money and credit in the United States. The instruments of monetary policy available to the Federal Reserve can be used in varying degrees and combinations to directly affect the availability of bank loans and deposits, as well as the interest rates charged on loans and paid on deposits, and this can and does have a material effect on our business.

## Concentration of risk increases the potential for significant losses.

We have naturally developed concentrated exposures to those markets and asset classes in which we have specific knowledge or competency. In particular, we primarily operate in California markets with a concentration of ChineseAmerican individuals and businesses, and commercial and commercial real estate loans constitute a significant portion of our loan portfolio. In management's judgment, our extensive experience within these concentration areas helps us to better evaluate underwriting and other associated risks with extending credit. However, the presence of similar exposures concentrated in certain asset classes leaves us exposed to the risk of a focused downturn within a concentration area. Thus, our concentration in the California markets increases our exposure to materially higher credit losses if there is a deterioration in the economic conditions, housing conditions or real estate values in the California markets. Our concentration in commercial and commercial real estate lending also increases our exposure to risks generally associated with such lending. Our commercial and commercial real estate loans may have a greater risk of loss than residential mortgage loans, in part because these loans are generally larger or more complex to underwrite and are characterized by having a limited supply of real estate at commercially attractive locations, long delivery time frames for development and high interest rate sensitivity. Unexpected deterioration in the credit quality of our commercial or commercial real estate loan portfolios would require us to increase our provision for loan losses, which would reduce our profitability and could materially adversely affect our business, financial condition and results of operations. Moreover, with respect to commercial real estate loans, federal and state banking regulators are examining commercial real estate lending activity with heightened scrutiny and may require banks with higher levels of commercial real estate loans to implement more stringent underwriting, internal controls, risk
management policies and portfolio stress testing, as well as possibly higher levels of allowances for losses and capital levels as a result of commercial real estate lending growth and exposures.

## As we expand our business outside of California markets, we will encounter risks that could adversely affect us.

We primarily operate in California markets with a concentration of Chinese-American individuals and businesses; however, one of our strategies is to expand beyond California into other domestic markets that have concentrations of Chinese-American individuals and businesses. We currently have operations in eight other states (New York, Washington, Illinois, Texas, Maryland, Massachusetts, Nevada, and New Jersey) and in Hong Kong. In the course of this expansion, we will encounter significant risks and uncertainties that could have a material adverse effect on our operations. These risks and uncertainties include increased expenses and operational difficulties arising from, among other things, our ability to attract sufficient business in new markets, to manage operations in noncontiguous market areas, to comply with all of the various local laws and regulations, and to anticipate events or differences in markets in which we have no current experience.

To the extent that we expand through acquisitions, such acquisitions may also adversely harm our business if we fail to adequately address the financial and operational risks associated with such acquisitions. For example, risks can include difficulties in assimilating the operations, technology, and personnel of the acquired company; diversion of management's attention from other business concerns; inability to maintain uniform standards, controls, procedures, and policies; potentially dilutive issuances of equity securities; the incurring of additional debt and contingent liabilities; use of cash resources; large write-offs; and amortization expenses related to other intangible assets with finite lives.

## Our loan portfolio is largely secured by real estate, and a downturn in the real estate market may adversely affect our results of operations.

The real estate collateral securing our borrowers' obligations is principally located in California, and to a lesser extent, in New York, Washington, Illinois, Texas, Maryland, Massachusetts, Nevada, and New Jersey. The value of such collateral depends upon conditions in the relevant real estate markets. These include general or local economic conditions and neighborhood characteristics, unemployment rates, real estate tax rates, the cost of operating the properties, governmental regulations and fiscal policies, acts of nature including earthquakes, floods, and hurricanes (which may result in uninsured losses), and other factors beyond our control. The direction of real estate sales and prices in many markets across the United States is not currently predictable and reductions in the value of our real estate collateral could cause us to have to foreclose on the real estate. If we are not able to realize a satisfactory amount upon foreclosure sales, we may have to own the properties, subjecting us to exposure to the risks and expenses associated with ownership. Any continued declines in real estate sales and prices coupled with any weakness in the economy and continued high unemployment will result in higher than expected loan delinquencies or problem assets, additional loan charge-offs and provisions for loan losses, a decline in demand for our products and services, or a lack of growth or a decrease in deposits, which may cause us to incur losses, adversely affect our capital, and hurt our business.

## Our commercial loan, commercial real estate loan and construction loan portfolios expose us to risks that may be greater than the risks related to our other loans.

Our loan portfolio includes commercial loans and commercial real estate loans, which are secured by hotels and motels, shopping/retail centers, service station and car wash, industrial and warehouse properties, and other types of commercial properties. Commercial and commercial real estate loans may carry more risk as compared to other types of lending, because they typically involve larger loan balances often concentrated with a single borrower or groups of related borrowers. This may result in larger charge-offs on commercial and commercial real estate loans on a per loan basis than those incurred with our residential or consumer loan portfolios. These loans also may expose a lender to greater credit risk than loans secured by residential real estate. The payment experience on commercial real estate loans that are secured by income producing properties are typically dependent on the successful operation of the related real estate project and thus, may subject us to adverse conditions in the real estate market or to the general economy. The collateral securing these loans typically cannot be liquidated as easily as residential real estate. If we foreclose on these loans, our holding period for the collateral typically is longer than residential properties because there are fewer potential purchasers of the collateral.

Additionally, many of the Bank's commercial real estate and commercial business loans are made to small to medium sized businesses that may have a heightened vulnerability to economic conditions. Moreover, a portion of these loans have been made by us in recent years and the borrowers may not have experienced a complete business or economic cycle. Furthermore, the deterioration of our borrowers' businesses may hinder their ability to repay their loans with us, which could adversely affect our results of operations. Any unexpected deterioration in the credit quality of our commercial or commercial real estate loan portfolios would require us to increase our provision for loan losses, which would reduce our profitability and could materially adversely affect our business, financial condition, results of operations and prospects.

Moreover, federal and state banking regulators are examining commercial real estate lending activity with heightened scrutiny and may require banks with higher levels of commercial real estate loans to implement more stringent underwriting, internal controls, risk management policies and portfolio stress testing, as well as possibly higher levels of allowances for losses and capital levels as a result of commercial real estate lending growth and exposures. Because a significant portion of our loan portfolio is comprised of commercial real estate loans, the banking regulators may require us to maintain higher levels of capital than we would otherwise be expected to maintain, which could limit our ability to leverage our capital and have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, the risks inherent in construction lending may continue to affect adversely our results of operations. Such risks include, among other things, the possibility that contractors may fail to complete, or complete on a timely basis, construction of the relevant properties; substantial cost overruns in excess of original estimates and financing; market deterioration during construction; and lack of permanent take-out financing. Loans secured by such properties also involve additional risk because they have no operating history. In these loans, loan funds are advanced upon the security of the project under construction (which is of uncertain value prior to completion of construction) and the estimated operating cash flow to be generated by the completed project. There is no assurance that such properties will be sold or leased so as to generate the cash flow anticipated by the borrower. A general decline in real estate sales and prices across the United States or locally in the relevant real estate market, a decline in demand for residential real estate, economic weakness, high rates of unemployment, and reduced availability of mortgage credit, are some of the factors that can adversely affect the borrowers' ability to repay their obligations to us and the value of our security interest in collateral, and thereby adversely affect our results of operations and financial results.

## Our investments and/or financings in certain tax-advantaged projects may not generate returns as anticipated and may have an adverse impact on our financial results.

We invest in and/or finance certain tax-advantaged projects promoting affordable housing and renewable energy sources. Our investments in these projects are designed to generate a return primarily through the realization of federal and state income tax credits, and other tax benefits, over specified time periods. We are subject to the risk that previously recorded tax credits, which remain subject to recapture by taxing authorities based on compliance features required to be met at the project level, will fail to meet certain government compliance requirements and will not be able to be fully realized. The possible inability to realize these tax credits and other tax benefits can have a negative impact on our financial results. The risk of not being able to realize the tax credits and other tax benefits depends on many factors outside of our control, including changes in the applicable provisions of the tax code and the ability of the projects to be completed and properly managed.

## Our use of appraisals in deciding whether to make a loan on or secured by real property does not ensure the value of the real property collateral.

In considering whether to make a loan secured by real property, we typically require an appraisal of the property. However, an appraisal is only an estimate of the value of the property at the time the appraisal is made. If the appraisal does not reflect the amount that may be obtained upon any sale or foreclosure of the property, we may not realize an amount equal to the indebtedness secured by the property.

## Liabilities from environmental regulations could materially and adversely affect our business and financial condition.

In the course of the Bank's business, the Bank may foreclose and take title to real estate, and could be subject to environmental liabilities with respect to these properties. The Bank may be held liable to a governmental entity or to third parties for property damage, personal injury, investigation and clean-up costs incurred by these parties in connection with environmental contamination, or may be required to investigate or clear up hazardous or toxic substances, or chemical releases at a property. The costs associated with investigation or remediation activities could be substantial. In addition, as the owner or former owner of any contaminated site, the Bank may be subject to common law claims by third parties based on damages, and costs resulting from environmental contamination emanating from the property. If the Bank ever becomes subject to significant environmental liabilities, its business, financial condition, results of operations and the value of our common stock could be materially and adversely affected.

## We face substantial competition from our competitors.

We face substantial competition for deposits, loans, and for other banking services, as well as acquisitions, throughout our market area from the major banks and financial institutions that dominate the commercial banking industry. This may cause our cost of funds to exceed that of our competitors. These banks and financial institutions, including those with foreign ownership, may have greater resources than we do, including the ability to finance advertising campaigns and allocate their investment assets to regions of higher yield and demand and make acquisitions and invest in new banking technology. By virtue of their larger capital bases, our larger competitors have substantially greater lending limits than we do and perform certain functions, including trust services, which are not presently offered by us. We also compete for loans and deposits, as well as other banking services, such as payment services, with savings and loan associations, savings banks, brokerage houses, insurance companies, mortgage companies, credit unions, credit card companies and other financial and non-financial institutions and entities. These factors and ongoing consolidation among insured institutions in the financial services industry may materially and adversely affect our ability to market our products and services. Significant increases in the costs of monitoring and ensuring compliance with new banking regulations and the necessary costs of upgrading information technology and data processing capabilities can have a disproportionate impact on our ability to compete with larger institutions.

## We are dependent on key personnel and the loss of one or more of those key personnel may materially and adversely affect our prospects.

Competition for qualified employees and personnel in the banking industry is intense and we believe there are a limited number of qualified persons with knowledge of, and experience in, the communities that we serve. The process of recruiting personnel with the combination of skills and attributes required to carry out our strategies is often lengthy. Our success depends to a significant degree upon our ability to attract and retain qualified management, loan origination, finance, customer service, administrative, marketing, and technical personnel and upon the continued contributions of our management and personnel. In particular, our success has been and continues to be highly dependent upon the abilities of key executives and certain other employees, including, but not limited to, our Chief Executive Officer, Pin Tai, and our Chief Financial Officer, Heng W. Chen.

Our compensation practices are subject to review and oversight by the FDIC, the DBO, the Federal Reserve and other regulators. We may be subject to limitations on compensation practices, which may or may not affect our competitors, by the FDIC, the DBO, the Federal Reserve or other regulators. These limitations could further affect our ability to attract and retain our executive officers and other key personnel. In April 2011 and April 2016, the Federal Reserve, other federal banking agencies and the SEC jointly published proposed rules designed to implement provisions of the Dodd-Frank Act prohibiting incentive compensation arrangements that would encourage inappropriate risk taking at covered financial institutions, which includes a bank or bank holding company with $\$ 1$ billion or more of assets, such as the Bancorp and the Bank. It cannot be determined at this time whether or when a final rule will be adopted and whether compliance with such a final rule will substantially affect the manner in which we structure compensation for our executives and other employees. Depending on the nature and application of the final rules, we may not be able to successfully compete with certain financial institutions and other companies that are not subject to some or all of the rules to retain and attract executives and other high performing
employees. If this were to occur, our business, financial condition and results of operations could be adversely affected, perhaps materially.

## Managing reputational risk is important to attracting and maintaining customers, investors, and employees.

Threats to our reputation can come from many sources, including adverse sentiment about financial institutions generally, unethical practices, employee misconduct, failure to deliver minimum standards of service or quality, compliance deficiencies, failure to protect confidential client information and questionable, illegal, or fraudulent activities of our customers. We have policies and procedures in place that seek to protect our reputation and promote ethical conduct, but these policies and procedures may not be fully effective. Negative publicity regarding our business, employees, or customers, with or without merit, may result in the loss of customers, investors, and employees, costly litigation, a decline in revenues, and increased governmental regulation.

## Natural disasters and geopolitical events beyond our control could adversely affect us.

Natural disasters such as earthquakes, landslides, wildfires, extreme weather conditions, hurricanes, floods, and other acts of nature and geopolitical events involving civil unrest, changes in government regimes, terrorism, or military conflict could adversely affect our business operations and those of our customers and cause substantial damage and loss to real and personal property. These natural disasters and geopolitical events could impair our borrowers' ability to service their loans, decrease the level and duration of deposits by customers, erode the value of loan collateral, and result in an increase in the amount of our non-performing loans and a higher level of non-performing assets (including real estate owned), net chargeoffs, and provision for loan losses, which could materially and adversely affect our business, financial condition, results of operations and the value of our common stock.

## Adverse conditions in Asia and elsewhere could adversely affect our business.

A substantial number of our customers have economic and cultural ties to Asia and, as a result, we are likely to feel the effects of adverse economic and political conditions in Asia, including the effects of rising inflation or slowing growth and volatility in the real estate and stock markets in China and other regions. Additionally, we maintain a branch in Hong Kong. U.S. and global economic policies, military tensions, and unfavorable global economic conditions may adversely impact the Asian economies. In addition, pandemics and other public health crises or concerns over the possibility of such crises could create economic and financial disruptions in the region. A significant deterioration of economic conditions in Asia could expose us to, among other things, economic and transfer risk, and we could experience an outflow of deposits by those of our customers with connections to Asia. Transfer risk may result when an entity is unable to obtain the foreign exchange needed to meet its obligations or to provide liquidity. This may adversely impact the recoverability of investments with or loans made to such entities. Adverse economic conditions in Asia, and in China or Taiwan in particular, may also negatively impact asset values and the profitability and liquidity of our customers who operate in this region.

## We depend on the accuracy and completeness of information about customers.

In deciding whether to extend credit, open a bank account or enter into other transactions with customers, we may rely on information furnished to us by or on behalf of customers, including financial statements and other financial information. We also may rely on representations of customers as to the accuracy and completeness of that information and, with respect to financial statements, on reports of independent auditors. We may further rely on invoices, contracts, and other supporting documentation provided by our customers, as well as our customers' representations that their financial statements conform to U.S. GAAP (or other applicable accounting standards in foreign markets) and present fairly, in all material respects, the financial condition, results of operations and cash flows of the customer. We also may rely on customer representations and certifications, or other audit or accountants' reports, with respect to the business and financial condition of our clients. Our financial condition, results of operations, financial reporting or reputation could be negatively affected if we rely on materially misleading, false, inaccurate or fraudulent information.

## Our information systems may experience failures, interruptions, or breaches in security, which could have a material and adverse effect on our business, financial condition, results of operations and the value of our common stock.

We rely heavily on communications and information systems to conduct our business. Any failure, interruption, or breach or threatened breach of these systems could result in failures or disruptions in our customer relationship management, general ledger, deposit, loan, and other systems. In the course of providing financial services, we store personally identifiable data concerning customers and employees of customers. While we have policies and procedures designed to prevent or limit the effect of the failure, interruption, or breaches of our information systems, there can be no assurance that any such failures, interruptions, or breaches will not occur or, if they do occur, that they will be adequately addressed. Privacy laws and regulations are matters of growing public concern and are continually changing in the states in which we operate.

In recent periods, there has been a rise in electronic fraudulent activity, security breaches, and cyber-attacks within the financial services industry, especially in the banking sector. Fraudulent activity can take many forms and has evolved and escalated as more tools for accessing financial services emerge. Some financial institutions have reported breaches of their websites and systems, some of which have involved sophisticated and targeted attacks intended to misappropriate sensitive or confidential information, destroy or corrupt data, disable or degrade service, disrupt operations or sabotage systems. These breaches can remain undetected for an extended period of time. Other examples include debit card/credit card fraud, check fraud, mechanical devices attached to ATM machines, social engineering and phishing attacks to obtain personal information, impersonation of our clients through the use of falsified or stolen credentials, employee fraud, information theft and other malfeasance. The secure maintenance and transmission of confidential information, as well as the secure execution of transactions over our systems, are essential to protect us and our customers against fraud and security breaches and to maintain our customers' confidence. Increases in criminal activity levels and sophistication, advances in computer capabilities, and other developments could result in a compromise or breach of the technology, processes, and controls that we use to prevent fraudulent transactions or to protect data about us, our customers, and underlying transactions, as well as the technology used by our customers to access our systems. Cyber security risks may also occur with our third-party service providers, and may interfere with their ability to fulfill their contractual obligations to us, with attendant potential for financial loss or liability that could adversely affect our financial condition or results of operations. These risks will likely continue to increase in the future as we continue to increase our offerings of mobile services and other Internet or web-based products.

The occurrence of any failures, interruptions, fraudulent activities or breaches could damage our reputation, result in a loss of customers, cause us to incur additional costs (including remediation and cyber security protection costs), disrupt our operations, affect our ability to grow our online and mobile banking services, subject us to additional regulatory scrutiny, or expose us to civil litigation and possible financial liability, any of which could have a material adverse effect on our business, financial condition, results of operations and the value of our common stock.

## Our need to continue to adapt our information technology systems to allow us to provide new and expanded service could present operational issues, require significant capital spending, and disrupt our business.

The financial services market, including banking services, is undergoing rapid changes with frequent introductions of new technology-driven products and services. In addition to better serving customers, the effective use of technology increases efficiency and may enable us to reduce costs. Our future success may depend, in part, on our ability to use technology to provide products and services that provide convenience to customers and to create additional efficiencies in our operations. As we continue to offer Internet banking and other online and mobile services to our customers, and continue to expand our existing conventional banking services, we will need to adapt our information technology systems to handle these changes in a way that meets constantly changing industry and regulatory standards. This can be very expensive and may require significant capital expenditures. In addition, our success will depend on, among other things, our ability to provide secure and reliable services, anticipate changes in technology, and efficiently develop and introduce services that are accepted by our customers and cost effective for us to provide. Some of our competitors have substantially greater resources to invest in technological improvements than we currently have. We may not be able to effectively implement new technology-driven products and services or be successful in marketing these products and services to our customers. As a result, our ability to effectively compete to retain or acquire new business may be impaired, and our business, financial condition or results of operations, may be adversely affected.

## We may incur significant losses as a result of ineffective risk management processes and strategies.

We are exposed to many types of operational risks, including liquidity risk, credit risk, market risk, interest rate risk, legal and compliance risk, strategic risk, information security risk, and reputational risk. We are also reliant upon our employees, and our operations are subject to the risk of fraud, theft or malfeasance by our employees, vendors and others. We seek to monitor and control our risk exposure through a risk and control framework encompassing a variety of separate but complementary financial, credit, operational and compliance systems, and internal control and management review processes. However, these systems and review processes and the judgments that accompany their application may not be effective and, as a result, we may not anticipate every economic and financial outcome in all market environments or the specifics and timing of such outcomes, particularly in the event of the kinds of dislocations in market conditions experienced during the recession, which highlight the limitations inherent in using historical data to manage risk. If those systems and review processes prove to be ineffective in identifying and managing risks, our business, financial condition, results of operations and the value of our common stock could be materially and adversely affected. We may also suffer severe reputational damage.

## Our business and financial results could be impacted materially by adverse results in legal proceedings.

Various aspects of our operations involve the risk of legal liability. We have been, and expect to continue to be, named or threatened to be named as defendants in legal proceedings arising from our business activities. We establish accruals for legal proceedings when information related to the loss contingencies represented by those proceedings indicates both that a loss is probable and that the amount of the loss can be reasonably estimated, but we do not have accruals for all legal proceedings where we face a risk of loss. In addition, amounts accrued may not represent the ultimate loss to us from those legal proceedings. Thus, our ultimate losses may be higher or lower, and possibly significantly so, than the amounts accrued for loss contingencies arising from legal proceedings, and these losses could have a material and adverse effect on our business, financial condition, results of operations and the value of our common stock.

## Certain provisions of our charter and bylaws could make the acquisition of our company more difficult.

Certain provisions of our restated certificate of incorporation, as amended, and our restated bylaws, as amended, could make the acquisition of our company more difficult. These provisions include authorized but unissued shares of preferred and common stock that may be issued without stockholder approval; three classes of directors serving staggered terms; special requirements for stockholder proposals and nominations for director; and super-majority voting requirements in certain situations including certain types of business combinations.

## Our financial results could be adversely affected by changes in accounting standards or tax laws and regulations.

From time to time, the Financial Accounting Standards Board and the SEC will change the financial accounting and reporting standards that govern the preparation of our financial statements. In addition, from time to time, federal and state taxing authorities will change the tax laws and regulations, and their interpretations. These changes and their effects can be difficult to predict and can materially and adversely impact how we record and report our financial condition and results of operations.

Changes to tax law could increase our effective tax rates. These law changes may be retroactive to previous periods and as a result could negatively affect our current and future financial performance.

The price of our common stock may fluctuate significantly, and this may make it difficult for you to sell shares of common stock owned by you at times or at prices you find attractive.

The trading price of our common stock may fluctuate widely as a result of a number of factors, many of which are outside our control. In addition, the stock market is subject to fluctuations in the share prices and trading volumes that affect the market prices of the shares of many companies. These broad market fluctuations could adversely affect the market price of our common stock. Among the factors that could affect our stock price are:

- actual or anticipated quarterly fluctuations in our operating results and financial condition and prospects;
- changes in revenue or earnings estimates or publication of research reports and recommendations by financial analysts;
- failure to meet analysts' revenue or earnings estimates;
- speculation in the press or investment community;
- strategic actions by us or our competitors, such as acquisitions or restructurings;
- acquisitions of other banks or financial institutions;
- actions by institutional stockholders;
- fluctuations in the stock price and operating results of our competitors;
- general market conditions and, in particular, developments related to market conditions for the financial services industry;
- proposed or adopted regulatory changes or developments;
- anticipated or pending investigations, proceedings, or litigation that involve or affect us;
- successful management of reputational risk; and
- domestic and international economic factors, such as interest or foreign exchange rates, stock, commodity, credit, or asset valuations or volatility, unrelated to our performance.

The stock market and, in particular, the market for financial institution stocks, has experienced significant volatility. As a result, the market price of our common stock may be volatile. In addition, the trading volume in our common stock may fluctuate more than usual and cause significant price variations to occur. The trading price of the shares of our common stock and the value of our other securities will depend on many factors, which may change from time to time, including, without limitation, our financial condition, performance, creditworthiness and prospects, future sales of our equity or equity related securities, and other factors identified above in "Forward-Looking Statements," and in this Item 1A - "Risk Factors." The capital and credit markets can experience volatility and disruption. Such volatility and disruption can reach unprecedented levels, resulting in downward pressure on stock prices and credit availability for certain issuers without regard to their underlying financial strength. A significant decline in our stock price could result in substantial losses for individual stockholders and could lead to costly and disruptive securities litigation.

## An investment in our common stock is not an insured deposit.

Our common stock is not a bank deposit and, therefore, is not insured against loss by the FDIC, any other deposit insurance fund or by any other public or private entity. Investment in our common stock is inherently risky for the reasons described in this "Risk Factors" section and elsewhere in this report and is subject to the same market forces that affect the price of common stock in any company. As a result, if you acquire our common stock, you could lose some or all of your investment.

## Statutory restrictions and restrictions by our regulators on dividends and other distributions from the Bank may adversely impact us by limiting the amount of distributions the Bancorp may receive. Statutory and contractual restrictions and our regulators may also restrict the Bancorp's ability to pay dividends.

The ability of the Bank to pay dividends to us is limited by various regulations and statutes, including California law, and our ability to pay dividends on our outstanding stock is limited by various regulations and statutes, including Delaware law.

Substantially all of the Bancorp's cash flow comes from dividends that the Bank pays to us. Various statutory provisions restrict the amount of dividends that the Bank can pay to us without regulatory approval.

The Federal Reserve Board has previously issued Federal Reserve Supervision and Regulation Letter SR-09-4 that states that bank holding companies are expected to inform and consult with the Federal Reserve supervisory staff prior to taking any actions that could result in a diminished capital base, including any payment or increase in the rate of dividends. In addition, if we are not current in our payment of dividends on our Junior Subordinated Notes, we may not pay dividends on our common stock. Further, new capital conservation buffer requirements will limit the ability of the Bank to pay dividends to the Bancorp if we are not compliant with those capital cushions.

If the Bank were to liquidate, the Bank's creditors would be entitled to receive distributions from the assets of the Bank to satisfy their claims against the Bank before the Bancorp, as a holder of the equity interest in the Bank, would be entitled to receive any of the assets of the Bank as a distribution or dividend.

The restrictions described above, together with the potentially dilutive impact of the warrant initially issued to the U.S. Treasury in connection with our participation in the TARP Capital Purchase Program and subsequently sold by the U.S. Treasury in a secondary public offering, could have a negative effect on the value of our common stock. Moreover, holders of our common stock are entitled to receive dividends only when, as and if declared by our Board of Directors. Although we have historically paid cash dividends on our common stock, we are not required to do so and our Board of Directors could reduce or eliminate our common stock dividend in the future, which could adversely affect the market price of our common stock.

## The issuance of preferred stock could adversely affect holders of common stock, which may negatively impact their investment.

Our board of directors is authorized to issue preferred stock without any action on the part of the stockholders. Our board of directors also has the power, without stockholder approval, to set the terms of any such classes or series of preferred stock that may be issued, including voting rights, dividend rights and preferences over the common stock with respect to dividends or upon the liquidation, dissolution, or winding up of our business and other terms. If we issue preferred stock in the future that has a preference over the common stock with respect to the payment of dividends or upon liquidation, dissolution or winding up, or if we issue preferred stock with voting rights that dilute the voting power of the common stock, the rights of holders of the common stock or the market price of the common stock could be adversely affected.

## Our outstanding debt securities restrict our ability to pay dividends on our capital stock.

We have issued an aggregate of \$119.1 million in trust preferred securities (collectively, the "Trust Preferred Securities"). Payments to investors in respect of the Trust Preferred Securities are funded by distributions on certain series of securities issued by us, with similar terms to the relevant series of Trust Preferred Securities, which we refer to as the "Junior Subordinated Notes." If we are unable to pay interest in respect of the Junior Subordinated Notes (which will be used to make distributions on the Trust Preferred Securities), or if any other event of default occurs, then we will generally be prohibited from declaring or paying any dividends or other distributions, or redeeming, purchasing or acquiring, any of our capital securities, including the common stock, during the next succeeding interest payment period applicable to any of the Junior Subordinated Notes.

Moreover, any other financing agreements that we enter into in the future may limit our ability to pay cash dividends on our capital stock, including the common stock. In the event that any other financing agreements in the future restrict our ability to pay such dividends, we may be unable to pay dividends in cash on the common stock unless we can refinance amounts outstanding under those agreements.

## We may need to raise additional capital, which may dilute the interests of holders of our common stock or otherwise have an adverse effect on their investment.

Should economic conditions deteriorate, particularly in the California commercial real estate and residential real estate markets where our business is concentrated, we may need to raise more capital to support any additional provisions for loan losses and loan charge-offs. In addition, we may need to raise more capital to meet other regulatory requirements, including new required capital standards, if our losses are higher than expected, if we are unable to meet our capital requirements, or if additional capital is required for our growth. There can be no assurance that we would succeed in raising any such additional capital, and any capital we obtain may dilute the interests of holders of our common stock, or otherwise have an adverse effect on their investment.

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

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

## Item 1B. Unresolved Staff Comments.

The Company has not received written comments regarding its periodic or current reports from the staff of the Securities and Exchange Commission that were issued not less than 180 days before the end of its 2018 fiscal year and that remain unresolved.

## Item 2. Properties.

## Cathay General Bancorp

As of the date of the filing of this annual report, the Bancorp neither owns nor leases any real or personal property. The Bancorp uses the premises, equipment, and furniture of the Bank at 777 North Broadway, Los Angeles, California 90012 and at 9650 Flair Drive, El Monte, California 91731, in exchange for payment of a management fee to the Bank.

## Cathay Bank

The Bank's head office is located in a 36,727 square foot building in the Chinatown area of Los Angeles. The Bank owns both the building and the land upon which the building is situated. The Bank maintains certain of its administrative offices at a seven-story 102,548 square foot office building located at 9650 Flair Drive, El Monte, California 91731 . The Bank also owns this building and land in El Monte.

The Bank owns its branch offices in Monterey Park, Alhambra, Westminster, San Gabriel, City of Industry, Cupertino, Artesia, New York City (2 locations), Flushing (3 locations), Chicago, and Rockville in the state of Maryland. In addition, the Bank has certain operating and administrative departments located at 4128 Temple City Boulevard, Rosemead, California, where it owns the building and land with approximately 27,600 square feet of space.

The other branch and representative offices and other properties are leased by the Bank under leases with expiration dates ranging from January 2019 to February 2028, exclusive of renewal options. As of December 31, 2018, the Bank's investment in premises and equipment totaled $\$ 103.2$ million, net of accumulated depreciation. See Note 7 and Note 13 to the Consolidated Financial Statements.

## Item 3. Legal Proceedings.

See the information under section entitled "Litigation" in Note 13 to the Consolidated Financial Statements. That information is incorporated into this item by reference.

## Item 4. Mine Safety Disclosures.

Not Applicable.

## PART II

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

## Market Information

Our common stock is listed on the NASDAQ Global Select Market under the symbol "CATY." The closing price of our common stock on February 15, 2019, was $\$ 39.34$ per share, as reported by the NASDAQ Global elect Market.

## Holders

As of February 15,2019 , there were approximately 1,370 holders of record of our common stock.

## Securities Authorized for Issuance under Equity Compensation Plans

The information required by this item regarding equity compensation plans is incorporated by reference to the information set forth in Part III, Item 12 in this report.

## Performance Graph

The graph and accompanying information furnished below shows the cumulative total stockholder return over the past five years assuming the investment of $\$ 100$ on December 31, 2013 (and the reinvestment of dividends thereafter) in each of our common stock, the SNL Western Bank Index and the S\&P 500 Index. The SNL Western Bank Index is a market-weighted index comprised of publicly traded banks and bank holding companies (including the Company) most of which are based in California and the remainder of which are based in eight other western states, including Oregon, Washington, and Nevada. We will furnish, without charge, on the written request of any person who is a stockholder of record as of the record date for the 2019 annual meeting of stockholders, a list of the companies included in the SNL Western Bank Index. Requests for this information should be addressed to Lisa L. Kim, Secretary, Cathay General Bancorp, 777 North Broadway, Los Angeles, California 90012.

NOTE: The comparisons in the graph below are based upon historical data and are not indicative of, or intended to forecast, the future performance of, or returns on, our common stock. Such information furnished herewith shall not be deemed to be incorporated by reference into any of our filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, and shall not be deemed to be "soliciting material" or to be "filed" under the Securities Act or the Securities Exchange Act with the Securities and Exchange Commission except to the extent that the Company specifically requests that such information be treated as soliciting material or specifically incorporates it by reference into a filing under the Securities Act or the Securities Exchange Act.


|  | Period Ending |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Index | 12/31/13 | 12/31/14 | 12/31/15 | 12/31/16 | 12/31/17 | 12/31/18 |
| Cathay General Bancorp .................................. | 100.00 | 96.84 | 120.78 | 150.17 | 170.32 | 138.85 |
| S\&P 500 Index ................................................ | 100.00 | 113.69 | 115.26 | 129.05 | 157.22 | 150.33 |
| SNL Western Bank Index............................. | 100.00 | 120.01 | 124.35 | 137.85 | 153.70 | 121.69 |

Source: S\&P Global Market Intelligence © 2019

## Unregistered Sales of Equity Securities

There were no sales of any equity securities by the Company during the period covered by this Annual Report on Form 10-K that were not registered under the Securities Act.

## Issuer Purchases of Equity Securities

On February 1, 2016, the Board of Directors approved a stock repurchase program to buy back up to $\$ 45.0$ million of Bancorp's common stock. In 2016, the Company repurchased $1,380,578$ shares for $\$ 37.5$ million, or $\$ 27.13$ per share under the February 2016 repurchase program. In October 2018, the Company repurchased 200,326 shares for $\$ 7.5$ million, or $\$ 37.65$ per share and completed its February 2016 repurchase program.

On October 26, 2018, the Board of Directors announced the approval of a new stock repurchase program to buy back up to $\$ 45.0$ million of Bancorp's common stock. In 2018, the Company repurchased 913,400 shares for $\$ 35.1$ million, or $\$ 38.43$ per share under the October 2018 repurchase program. As of December 31, 2018, the Company may repurchase up to $\$ 9.9$ million of its common stock under the October 2018 repurchase program.

| Issuer Purchases of Equity Securities |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{array}{c}\text { (c) Total } \\ \text { Number of } \\ \text { Shares (or } \\ \text { Units) }\end{array}$ | $\begin{array}{c}\text { (d) Maximum } \\ \text { Number (or } \\ \text { Approximate Dollar } \\ \text { Value) of Shares (or } \\ \text { Units) that }\end{array}$ |  |
| May Yet Be |  |  |  |  |$\}$

## Item 6. Selected Financial Data.

The following table presents our selected historical consolidated financial data and is derived in part from our audited Consolidated Financial Statements. The selected historical consolidated financial data should be read in conjunction with the Consolidated Financial Statements and the Notes thereto included elsewhere herein and with Part II - Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations."

## Selected Consolidated Financial Data

|  | Year Ended December 31, |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  | 2015 |  | 2014 |  |
|  | (Dollars in thousands, except share and per share data) |  |  |  |  |  |  |  |  |  |
| Income Statement |  |  |  |  |  |  |  |  |  |  |
| Interest income. | \$ | 687,955 | \$ | 576,151 | \$ | 499,070 | \$ | 453,706 | \$ | 418,647 |
| Interest expense |  | 122,056 |  | 80,442 |  | 81,200 |  | 73,964 |  | 75,866 |
| Net interest income before reversal for credit losses |  | 565,899 |  | 495,709 |  | 417,870 |  | 379,742 |  | 342,781 |
| Reversal for credit losses. |  | $(4,500)$ |  | $(2,500)$ |  | $(15,650)$ |  | $(11,400)$ |  | $(10,800)$ |
| Net interest income after reversal for credit losses.. |  | 570,399 |  | 498,209 |  | 433,520 |  | 391,142 |  | 353,581 |
| Net (losses)/gains from equity securities, net.......... |  | $(2,787)$ |  | - |  | - |  | - |  | - |
| Securities gains/(losses) ..................................... |  | 22 |  | 1,006 |  | 4,898 |  | $(3,349)$ |  | 6,748 |
| Other non-interest income |  | 34,472 |  | 35,291 |  | 28,472 |  | 36,023 |  | 33,779 |
| Non-interest expense |  | 264,419 |  | 236,199 |  | 224,690 |  | 202,720 |  | 174,313 |
| Income before income tax expense ....................... |  | 337,687 |  | 298,307 |  | 242,200 |  | 221,096 |  | 219,795 |
| Income tax expense ............................................ |  | 65,802 |  | 122,265 |  | 67,101 |  | 59,987 |  | 81,965 |
| Net income attributable to common stockholders ... | \$ | 271,885 | \$ | 176,042 | \$ | 175,099 | \$ | 161,109 | \$ | $\underline{\text { 137,830 }}$ |
| Net income attributable to common stockholders per common share $\qquad$ |  |  |  |  |  |  |  |  |  |  |
| Basic. | \$ | 3.35 | \$ | 2.19 | \$ | 2.21 | \$ | 2.00 | \$ | 1.73 |
| Diluted | \$ | 3.33 | \$ | 2.17 | \$ | 2.19 | \$ | 1.98 | \$ | 1.72 |
| Cash dividends paid per common share | \$ | 1.03 | \$ | 0.87 | \$ | 0.75 | \$ | 0.56 | \$ | 0.29 |
| Weighted-average common shares........................ |  |  |  |  |  |  |  |  |  |  |
| Basic ........................................................... |  | 81,131,269 |  | 80,262,782 |  | 79,153,762 |  | 80,563,577 |  | 79,661,571 |
| Diluted. |  | 81,607,346 |  | 81,004,550 |  | 79,929,262 |  | 81,294,796 |  | 80,106,895 |
| Statement of Condition |  |  |  |  |  |  |  |  |  |  |
| Investment Securities. |  | 1,242,509 |  | 1,333,626 |  | 1,314,345 |  | 1,586,352 |  | 1,318,935 |
| Net loans ${ }^{(1)}$. |  | 13,871,832 |  | 12,743,766 |  | 11,077,315 |  | 10,016,227 |  | 8,740,268 |
| Total assets. |  | 16,784,737 |  | 15,640,186 |  | 14,520,769 |  | 13,254,126 |  | 11,516,846 |
| Deposits. |  | 13,702,340 |  | 12,689,893 |  | 11,674,726 |  | 10,509,087 |  | 8,783,460 |
| Federal funds purchased and securities sold under agreements to repurchase. |  | - |  | 100,000 |  | 350,000 |  | 400,000 |  | 450,000 |
| Advances from the Federal Home Loan Bank ........ |  | 530,000 |  | 430,000 |  | 350,000 |  | 275,000 |  | 425,000 |
| Long-term debt. |  | 189,448 |  | 194,136 |  | 119,136 |  | 119,136 |  | 119,136 |
| Total equity ..................................................... |  | 2,121,866 |  | 1,973,304 |  | 1,828,539 |  | 1,747,778 |  | 1,602,888 |
| Common Stock Data |  |  |  |  |  |  |  |  |  |  |
| Shares of common stock outstanding. |  | 80,501,948 |  | 80,893,379 |  | 79,610,277 |  | 80,806,116 |  | 79,814,553 |
| Book value per common share. | \$ | 26.36 | \$ | 24.26 | \$ | 22.80 | \$ | 21.46 | \$ | 20.00 |
| Profitability Ratios |  |  |  |  |  |  |  |  |  |  |
| Return on average assets . |  | 1.70\% |  | 1.19\% |  | 1.31\% |  | 1.34\% |  | 1.26\% |
| Return on average stockholders' equity ................. |  | 13.18 |  | 9.10 |  | 9.88 |  | 9.52 |  | 8.95 |
| Dividend payout ratio........................................ |  | 30.69 |  | 39.70 |  | 33.85 |  | 28.11 |  | 16.76 |
| Average equity to average assets ratio .................. |  | 12.89 |  | 13.14 |  | 13.29 |  | 14.04 |  | 14.04 |
| Efficiency ratio................................................. |  | 44.25 |  | 44.40 |  | 49.79 |  | 49.15 |  | 45.48 |

(1) Net loans represent gross loans net of loans held for sale, loan participations sold, allowance for loan losses, and unamortized deferred loan fees.

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

## General

The following discussion is intended to provide information to facilitate the understanding and assessment of the consolidated financial condition and results of operations of the Bancorp and its subsidiaries. It should be read in conjunction with the audited Consolidated Financial Statements and Notes appearing elsewhere in this Annual Report on Form 10-K.

The Bank offers a wide range of financial services. As of the filing date of this report, the Bank operates 26 branches in Southern California, 14 branches in Northern California, 11 branches in New York State, four branches in Washington State, three branches in Illinois, two branches in Texas, one branch in Maryland, Massachusetts, Nevada, and New Jersey, one branch in Hong Kong, and a representative office in Beijing, in Shanghai, and in Taipei. The Bank is a commercial bank, servicing primarily individuals, professionals, and small to medium-sized businesses in the local markets in which its branches are located.

The financial information presented herein includes the accounts of the Bancorp, its subsidiaries, including the Bank, and the Bank's consolidated subsidiaries. All material transactions between these entities are eliminated.

## Critical Accounting Policies

The discussion and analysis of our financial condition and results of operations are based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these Consolidated Financial Statements requires management to make estimates and judgments that affect the reported amounts of assets and liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities at the date of our Consolidated Financial Statements. Actual results may differ from these estimates under different assumptions or conditions.

Certain accounting policies involve significant judgments and assumptions by management which have a material impact on the carrying value of certain assets and liabilities; management considers such accounting policies to be critical accounting policies. The judgments and assumptions used by management are based on historical experience and other factors, which are believed to be reasonable under the circumstances.

Management believes the following are critical accounting policies that require the most significant judgments and estimates used in the preparation of the Consolidated Financial Statements:

## Allowance for Credit Losses

The determination of the amount of the provision for credit losses charged to operations reflects management's current judgment about the credit quality of the loan portfolio and takes into consideration changes in lending policies and procedures, changes in economic and business conditions, changes in the nature and volume of the portfolio and in the terms of loans, changes in the experience, ability, and depth of lending management, changes in the volume and severity of past due, nonaccrual, and adversely classified or graded loans, changes in the quality of the loan review system, changes in the value of underlying collateral for collateral-dependent loans, the existence and effect of any concentrations of credit and the effect of competition, legal and regulatory requirements, and other external factors. The nature of the process by which we determine the appropriate allowance for loan losses requires the exercise of considerable judgment. The allowance is increased by the provision for loan losses and decreased by charge-offs when management believes the collectability of a loan is confirmed. Subsequent recoveries, if any, are credited to the allowance. A weakening of the economy or other factors that adversely affect asset quality could result in an increase in the number of delinquencies, bankruptcies, or defaults, and a higher level of non-performing assets, net charge-offs, and provision for loan losses in future periods.

The total allowance for credit losses consists of two components: specific allowances and general allowances. To determine the adequacy of the allowance in each of these two components, we employ two primary methodologies, the individual loan review analysis methodology and the classification migration methodology. These methodologies support the basis for determining allocations between the various loan categories and the overall adequacy of our allowance to provide for probable losses inherent in the loan portfolio. These methodologies are further supported by additional analysis of relevant factors such as the historical losses in the portfolio, and environmental factors which include trends in delinquency and nonaccrual, and other significant factors, such as the national and local economy, the volume and composition of the portfolio, the strength of management and loan staff, underwriting standards, and the concentration of credit.

The Bank's management allocates a specific allowance for "Impaired Credits," in accordance with Accounting Standard Codification ("ASC") Section 310-10-35. For non-Impaired Credits, a general allowance is established for those loans internally classified and risk graded Pass, Watch, Special Mention, or Substandard based on historical losses in the specific loan portfolio and a reserve based on environmental factors determined for that loan group. The level of the general allowance is established to provide coverage for management's estimate of the credit risk in the loan portfolio by various loan segments not covered by the specific allowance. The allowance for credit losses is discussed in more detail in "Risk Elements of the Loan Portfolio - Allowance for Credit Losses" below. Management has reviewed the foregoing critical accounting policies and related disclosures with the Audit Committee of the Company's Board of Directors.

## Results of Operations

## Overview

For the year ended December 31, 2018, we reported net income of $\$ 271.9$ million, or $\$ 3.33$ per diluted share, compared to net income of $\$ 176.0$ million, or $\$ 2.17$ per share, in 2017, and net income of $\$ 175.1$ million, or $\$ 2.19$ per share, in 2016. The $\$ 95.9$ million increase in net income from 2017 to 2018 was primarily the result of increases in net interest income and other operating income and decreases in income taxes, partially offset by increases in amortization expense of investments in alternative energy partnerships, and in salaries and employee benefits. The return on average assets in 2018 was $1.70 \%$, compared to $1.19 \%$ in 2017, and to $1.31 \%$ in 2016. The return on average stockholders' equity was $13.18 \%$ in 2018 , compared to $9.10 \%$ in 2017 , and to $9.88 \%$ in 2016 .

## Highlights

- Total loans increased for the year by $\$ 1.1$ billion, or $8.5 \%$, to $\$ 14.0$ billion from $\$ 12.9$ billion in 2017.
- Net interest margin for 2018 increased to $3.79 \%$ compared to $3.63 \%$ in 2017.

Net income available to common stockholders and key financial performance ratios are presented below for the three years indicated:

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  |
|  | (Dollars in thousands, except per share data) |  |  |  |  |  |
| Net income. | \$ | 271,885 | \$ | 176,042 | \$ | 175,099 |
| Basic earnings per common share. | \$ | 3.35 | \$ | 2.19 | \$ | 2.21 |
| Diluted earnings per common share. | \$ | 3.33 | \$ | 2.17 | \$ | 2.19 |
| Return on average assets |  | 1.70\% |  | 1.19\% |  | 1.31 \% |
| Return on average stockholders' equity. |  | $13.18 \%$ |  | 9.10\% |  | 9.88\% |
| Total average assets | \$ | 16,004,319 | \$ | 14,733,018 | \$ | 13,331,148 |
| Total average equity.. | \$ | 2,063,400 | \$ | 1,935,298 | \$ | 1,772,017 |
| Efficiency ratio................................................................... |  | 44.25 \% |  | 44.40 \% |  | 49.79 \% |
| Effective income tax rate ....................................................... |  | 19.49 \% |  | 40.99 \% |  | 27.70 \% |

## Net Interest Income

## Comparison of 2018 with 2017

Net interest income increased $\$ 70.2$ million, or $14.2 \%$, from $\$ 495.7$ million in 2017 to $\$ 565.9$ million in 2018. The increase in net interest income was due primarily to the increase in loan interest income, offset by increases in interest expense from time deposits and other interest-bearing deposits.

Average loans for 2018 were $\$ 13.3$ billion, a $\$ 1.4$ billion, or $11.8 \%$ increase from $\$ 11.9$ billion in 2017. Compared with 2017, average residential mortgage loans increased $\$ 653.3$ million, or $22.4 \%$, average commercial mortgage loans increased $\$ 454.5$ million, or $7.4 \%$, average commercial loans increased $\$ 250.0$ million, or $11.0 \%$, and average real estate construction loans decreased $\$ 14.2$ million, or $2.3 \%$. Average investment securities were $\$ 1.3$ billion in 2018, an increase of $\$ 36.9$ million, or $2.8 \%$, from 2017. Average interest bearing cash on deposits with financial institutions decreased $\$ 89.7$ million, or $24.5 \%$, to $\$ 277.0$ million in 2018 from $\$ 366.7$ million in 2017.

Average interest bearing deposits were $\$ 10.4$ billion in 2018, an increase of $\$ 967.0$ million, or $10.2 \%$, from $\$ 9.4$ billion in 2017 , primarily due to increases of $\$ 1.1$ billion, or $21.9 \%$, in time deposits, $\$ 85.3$ million, or $6.5 \%$, in interest bearing demand deposits, offset by decreases of $\$ 159.3$ million, or $6.8 \%$, in money market accounts, and $\$ 43.0$ million, or $5.2 \%$, in savings accounts. Average securities sold under agreements to repurchase decreased $\$ 87.3$ million, or $63.8 \%$, to $\$ 49.6$ million in 2018 from $\$ 136.8$ million in 2017.

Interest income increased $\$ 111.8$ million, or $19.4 \%$, from $\$ 576.2$ million in 2017 to $\$ 688.0$ million in 2018 primarily due to increases in the volume of loans:

- Changes in volume: Average interest-earning assets increased $\$ 1.3$ billion, or $9.6 \%$, to $\$ 14.9$ billion in 2018, compared with the average interest-earning assets of $\$ 13.6$ billion in 2017. Average loans increased $\$ 1.4$ billion and average investment securities increased $\$ 36.9$ million in 2018 which contributed to the increase in interest income. Offsetting the above increases was a decrease of $\$ 89.7$ million in interest bearing deposits with other financial institutions. The increase of $\$ 111.8$ million in interest income resulted primarily from a $\$ 64.4$ million increase in interest income from the loan volume increase and a $\$ 594,000$ increase in interest income from investment securities volume increase, offset by a $\$ 513,000$ decrease in interest income due to volume decrease from interest bearing deposits with other financial institutions.
- Changes in rate: The average yield of interest-bearing assets increased to $4.61 \%$ in 2018 from $4.22 \%$ in 2017. Increase in rate on loans contributed $\$ 38.8$ million to interest income, increase in rate on deposits with other financial institutions contributed $\$ 1.3$ million to interest income, and increase in rate on investment securities
contributed $\$ 7.5$ million to interest income. The changes in rate contributed to interest income increase of $\$ 47.6$ million.
- Change in the mix of interest-earning assets: Average gross loans, which generally have a higher yield than other types of investments, comprised $89.0 \%$ of total average interest-earning assets in 2018, an increase from $87.5 \%$ in 2017. Average investment securities comprised $9.0 \%$ of total average interest-bearing assets in 2018, a decrease from $9.6 \%$ in 2017.

Interest expense increased by $\$ 41.6$ million, or $51.7 \%$, to $\$ 122.1$ million in 2018 , compared with $\$ 80.4$ million in 2017, primarily due to increased cost from time deposits, long term debt, and FHLB advances offset by decreases in securities sold under agreements to repurchase. The overall increase in interest expense was primarily due to increases in both volume and rates in interest bearing deposits, volume increases in long term debts and rate increases in other borrowings offset by decreases in both volume and rate on securities sold under agreements to repurchase and rate decreases in long term debt as discussed below:

- Changes in volume: Average interest bearing deposits increased $\$ 967.0$ million, or $10.2 \%$, and average long term debt increased $\$ 65.1$ million, or $50.5 \%$, offset by decreases in securities sold under agreements to repurchase of $\$ 87.3$ million, or $63.8 \%$, and a decrease in FHLB advances and other borrowings of $\$ 2.7$ million, or $1.0 \%$. The changes in volume caused an increase in interest expense of $\$ 11.6$ million.
- Changes in rate: The average costs of interest-bearing deposits and FHLB advances and other borrowings increased to $1.03 \%$ and $1.98 \%$ in 2018 from $0.70 \%$ and $1.66 \%$ in 2017, respectively. The increased cost was offset by decreases in average costs of long term debt and securities sold under agreements to repurchase to $4.49 \%$ and $2.92 \%$ in 2018 from $4.73 \%$ and $3.11 \%$ in 2017, respectively. The changes in rate caused interest expense to increase by $\$ 30.0$ million.
- Change in the mix of interest-bearing liabilities: Average interest-bearing deposits of $\$ 10.4$ billion increased to $95.4 \%$ of total interest-bearing liabilities in 2018 compared to $94.8 \%$ in 2017. Average long-term debt of $\$ 194.1$ million increased to $1.8 \%$ of total interest-bearing liabilities. Offsetting the increase, average securities sold under agreements to repurchase decreased to $0.5 \%$ of total interest-bearing liabilities in 2018 compared to $1.4 \%$ in 2017 and average FHLB advances and other borrowings of $\$ 253.7$ million decreased to $2.3 \%$ of total interestbearing liabilities in 2018 compared to $2.6 \%$ in 2017.

Net interest margin, defined as net interest income to average interest-earning assets, was $3.79 \%$ in 2018 compared to $3.63 \%$ in 2017.

## Comparison of 2017 with 2016

Net interest income increased $\$ 77.8$ million, or $18.6 \%$, from $\$ 417.9$ million in 2016 to $\$ 495.7$ million in 2017. The increase in net interest income was due primarily to the increase in loan interest income, decrease in interest expense on securities sold under agreements to repurchase, and increase in interest income from interest bearing deposits, partially offset by increases in interest expense from money market accounts and time deposits.

Average loans for 2017 were $\$ 11.9$ billion, a $\$ 1.3$ billion, or a $12.4 \%$, increase from $\$ 10.6$ billion in 2016. Compared with 2016, average residential mortgage loans increased $\$ 584.3$ million, or $25.1 \%$, average commercial mortgage loans increased $\$ 564.6$ million, or $10.2 \%$, average real estate construction loans increased $\$ 121.8$ million, or $24.6 \%$, and average commercial loans increased $\$ 43.2$ million, or $1.9 \%$. Average investment securities were $\$ 1.3$ billion in 2017, a decrease of $\$ 64.8$ million, or $4.7 \%$, from 2016. Average interest-bearing cash on deposits with financial institutions increased $\$ 21.5$ million, or $6.2 \%$, to $\$ 366.7$ million in 2017 from $\$ 345.1$ million in 2016.

Average interest-bearing deposits were $\$ 9.4$ billion in 2017 , an increase of $\$ 893.2$ million, or $10.4 \%$, from $\$ 8.6$ billion in 2016, primarily due to increases of $\$ 300.4$ million, or $14.6 \%$, in money market deposits, $\$ 258.0$ million, or $24.7 \%$, in interest-bearing demand deposits, $\$ 198.6$ million, or $31.2 \%$, in saving deposits, and $\$ 136.3$ million, or $2.8 \%$, in time deposits. Average securities sold under agreements to repurchase decreased $\$ 245.1$ million, or $64.2 \%$, to $\$ 136.8$ million in 2017 from $\$ 381.9$ million in 2016 , primarily due to maturities of securities sold under agreements to repurchase. Average other borrowings increased $\$ 129.7$ million, or $102 \%$, to $\$ 256.4$ million in 2017 from $\$ 126.7$ million in 2016 , primarily due to increases in FHLB advances.

Interest income increased $\$ 77.1$ million, or $15.4 \%$, from $\$ 499.1$ million in 2016 to $\$ 576.2$ million in 2017 primarily due to increases in the volume of loans:

- Changes in volume: Average interest-earning assets increased $\$ 1.3$ billion, or $10.4 \%$, to $\$ 13.6$ billion in 2017, compared with the average interest-earning assets of $\$ 12.4$ billion in 2016 . Average loans increased $\$ 1.3$ billion and average interest-bearing cash on deposits with financial institutions increased $\$ 21.5$ million in 2017 which contributed to the increase in interest income. Offsetting the above increases was a decrease of $\$ 64.8$ million in investment securities. The increase of $\$ 59.9$ million in interest income resulted primarily from a $\$ 60.2$ million increase in interest income from the loan volume increase, offset by a $\$ 1.0$ million decrease in interest income from the investment securities.
- Changes in rate: The average yield of interest-bearing assets increased to $4.22 \%$ in 2017 from $4.04 \%$ in 2016 . Increase in rate on loans contributed $\$ 15.4$ million to interest income, increase in rate on deposit with other financial institutions contributed $\$ 2.5$ million to interest income, and increase rate on investment securities contributed $\$ 122,000$ to interest income, partially offset by decrease in rate on FHLB stock which caused a $\$ 868,000$ decrease to interest income. The changes in rate contributed to interest income increase of $\$ 17.2$ million.
- Change in the mix of interest-earning assets: Average gross loans, which generally have a higher yield than other types of investments, comprised $87.5 \%$ of total average interest-earning assets in 2017, an increase from $86.0 \%$ in 2016. Average investment securities comprised $9.6 \%$ of total average interest-bearing assets in 2017, a decrease from $11.1 \%$ in 2016.

Interest expense decreased by $\$ 758,000$, or $0.9 \%$, to $\$ 80.4$ million in 2017 , compared with $\$ 81.2$ million in 2016, primarily due to decreased cost from securities sold under agreements to repurchase offset by increased interest cost from money market accounts, time deposits and FHLB advances and other borrowings. The overall decrease in interest expense was primarily due to decreases in both volume and rates in securities sold under agreements to repurchase offset by increases in volume from all other interest bearing liabilities and increase in rate on time deposits and other borrowings from financial institutions as discussed below:

- Changes in volume: Average interest-bearing deposits increased $\$ 893.2$ million, or $10.4 \%$, and average FHLB advances and other borrowings increased $\$ 129.7$ million, or $102 \%$, partially offset by a $\$ 245.1$ million, or $64.2 \%$, decrease in average securities sold under agreements to repurchase. The changes in volume caused a decrease in interest expense of $\$ 2.6$ million.
- Changes in rate: The average cost of securities sold under agreements to repurchase decreased to $3.11 \%$ in 2017 from $4.01 \%$ in 2016. The average cost of interest-bearing deposits increased to $0.70 \%$ in 2017 from $0.69 \%$ in 2016. The changes in rate caused interest expense to increase by $\$ 1.8$ million.
- Change in the mix of interest-bearing liabilities: Average interest-bearing deposits of $\$ 9.4$ billion increased to $94.8 \%$ of total interest-bearing liabilities in 2017 compared to $93.2 \%$ in 2016. Average FHLB advances and other borrowings of $\$ 256.4$ million increased to $2.6 \%$ of total interest-bearing liabilities in 2017 compared to $0.5 \%$ in 2016. Offsetting the increase, average securities sold under agreements to repurchase decreased to $1.4 \%$ of total interest-bearing liabilities in 2017 compared to $4.2 \%$ in 2016.

Net interest margin, defined as net interest income to average interest-earning assets, was $3.63 \%$ in 2017 compared to $3.38 \%$ in 2016.

The following table sets forth information concerning average interest-earning assets, average interest-bearing liabilities, and the yields and rates paid on those assets and liabilities. Average outstanding amounts included in the table are daily averages.

| Interest-Earning Assets and Interest-Bearing Liabilities |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 Average <br> Balance | Interest Income/ <br> Expense | Average Yield/ Rate ${ }^{(1)(2)}$ | 2017 <br> Average <br> Balance | Interest <br> Income/ <br> Expense | Average Yield/ Rate ${ }^{(1)(2)}$ | 2016 Average <br> Balance | Interest Income/ <br> Expense | Average Yield/ $\underline{\text { Rate }^{(1)(2)}}$ |
|  | (Dollars in thousands) |  |  |  |  |  |  |  |  |
| Interest-Earning Assets: |  |  |  |  |  |  |  |  |  |
| Loans ${ }^{(1)}$............................. | \$ 13,280,665 | \$ 652,480 | 4.91 | \$ 11,937,683 | \$ 549,291 | 4.60 | \$ 10,622,160 | \$ 473,782 | 4.46 |
| Investment securities.............. | 1,344,965 | 28,603 | 2.13 | 1,308,089 | 20,531 | 1.57 | 1,372,916 | 21,426 | 1.56 |
| FHLB stock ........................ | 18,540 | 1,663 | 8.97 | 23,209 | 1,798 | 7.75 | 17,516 | 2,099 | 11.98 |
| Federal funds sold.. | - |  | - | 9,499 | 110 | 1.16 |  |  | - |
| Interest-bearing deposits ......... | 277,004 | 5,209 | 1.88 | 366,674 | 4,421 | 1.21 | 345,136 | 1,763 | 0.51 |
| Non-interest earning assets: |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Cash and due from banks.... | 206,475 |  |  | 229,796 |  |  | 216,443 |  |  |
| Other non-earning assets..... | 1,002,957 |  |  | 977,939 |  |  | 893,478 |  |  |
| Total non-interest earning |  |  |  |  |  |  |  |  |  |
| Less: Allowance for loan |  |  |  |  |  |  |  |  |  |
| losses ....................... | $(123,441)$ |  |  | $(115,635)$ |  |  | $(129,701)$ |  |  |
| Deferred loan fees ...... | $(2,846)$ |  |  | $(4,236)$ |  |  | $(6,800)$ |  |  |
| Total Assets .... | \$ 16,004,319 |  |  | \$14,733,018 |  |  | \$ 13,331,148 |  |  |
| Interest-Bearing Liabilities: |  |  |  |  |  |  |  |  |  |
| Interest-bearing demand deposits. | \$ 1,389,326 | \$ 2,718 | 0.20 | \$ 1,304,052 | \$ 2,242 | 0.17 | \$ 1,046,046 | \$ 1,740 | 0.17 |
| Money market deposits....... | 2,200,847 | 16,202 | 0.74 | 2,360,188 | 15,062 | 0.64 | 2,059,823 | 13,308 | 0.65 |
| Savings deposits ................ | 791,982 | 1,583 | 0.20 | 834,973 | 1,772 | 0.21 | 636,422 | 1,046 | 0.16 |
| Time deposits ................... | 6,031,061 | 86,368 | 1.43 | 4,947,052 | 46,768 | 0.95 | 4,810,746 | 43,327 | 0.90 |
| Total interest-bearing deposits | 10,413,216 | 106,871 | 1.03 | 9,446,265 | 65,844 | 0.70 | 8,553,037 | 59,421 | 0.69 |
| Securities sold under |  |  |  |  |  |  |  |  |  |
| FHLB advances and other |  |  |  |  |  |  |  |  |  |
| Long-term debt ..................... | 194,123 | 8,723 | 4.49 | 128,999 | 6,096 | 4.73 | 119,136 | 5,791 | 4.86 |
| Total interest-bearing |  |  |  |  |  |  |  |  |  |
| Non-interest Bearing |  |  |  |  |  |  |  |  |  |
| Demand deposits................... | 2,819,711 |  |  | 2,599,109 |  |  | 2,199,274 |  |  |
| Other liabilities .................... | 210,566 |  |  | 230,075 |  |  | 178,997 |  |  |
| Stockholders' equity ............... | 2,063,400 |  |  | 1,935,298 |  |  | 1,772,017 |  |  |
| Total liabilities and stockholders' equity $\qquad$ | \$ 16,004,319 |  |  | \$ 14,733,018 |  |  | \$ 13,331,148 |  |  |
| Net interest spread ................ |  |  | 3.49\% |  |  | 3.41\% |  |  | 3.16\% |
| Net interest income ................ |  | \$ 565,899 |  |  | \$495,709 |  |  | \$417,870 |  |
| Net interest margin ................ |  |  | 3.79\% |  |  | 3.63\% |  |  | 3.38\% |

[^0]
## Net Interest Income - Changes Due to Rate and Volume ${ }^{(1)}$

|  | 2018-2017 <br> Increase/(Decrease) in Net Interest Income Due to: |  |  |  |  |  | $\begin{gathered} 2017-2016 \\ \text { Increase/(Decrease) in } \\ \text { Net Interest Income Due to: } \end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Change in Volume |  | Change in Rate |  | TotalChange |  | Change in Volume |  | Change in Rate |  | TotalChange |  |
|  | (In thousands) |  |  |  |  |  |  |  |  |  |  |  |
| Interest-Earning Assets |  |  |  |  |  |  |  |  |  |  |  |  |
| Deposits with other banks | \$ | (513) | \$ | 1,301 | \$ | 788 | \$ | 117 | \$ | 2,541 | \$ | 2,658 |
| Federal funds sold and securities purchased under agreements to resell |  | (55) |  | (55) |  | (110) |  | 110 |  | - |  | 110 |
| Investment securities. |  | 594 |  | 7,478 |  | 8,072 |  | $(1,017)$ |  | 122 |  | (895) |
| FHLB stock |  | (235) |  | 100 |  | (135) |  | 567 |  | (868) |  | (301) |
| Loans. |  | 64,408 |  | 38,781 |  | 103,189 |  | 60,154 |  | 15,355 |  | 75,509 |
| Total increase in interest income. |  | 64,199 |  | 47,605 |  | 111,804 |  | 59,931 |  | 17,150 |  | 77,081 |
| Interest-Bearing Liabilities |  |  |  |  |  |  |  |  |  |  |  |  |
| Interest-bearing demand deposits ................... |  | 153 |  | 323 |  | 476 |  | 442 |  | 60 |  | 502 |
| Money market deposits ................................ |  | (358) |  | 1,498 |  | 1,140 |  | 1,919 |  | (165) |  | 1,754 |
| Savings deposits. |  | (89) |  | (100) |  | (189) |  | 375 |  | 351 |  | 726 |
| Time deposits. |  | 11,823 |  | 27,777 |  | 39,600 |  | 1,250 |  | 2,191 |  | 3,441 |
| Securities sold under agreements to repurchase |  | $(2,559)$ |  | (246) |  | $(2,805)$ |  | $(8,192)$ |  | $(2,887)$ |  | $(11,079)$ |
| FHLB advances and other borrowings ............. |  | (2) |  | 767 |  | 765 |  | 1,145 |  | 2,448 |  | 3,593 |
| Long-term debt........................................... |  | 2,667 |  | (40) |  | 2,627 |  | 469 |  | (164) |  | 305 |
| Total increase/(decrease) in interest expense ... |  | 11,635 |  | 29,979 |  | 41,614 |  | $(2,592)$ |  | 1,834 |  | (758) |
| Change in net interest income ........................ | \$ | 52,564 | \$ | $\underline{\text { 17,626 }}$ | \$ | 70,190 | \$ | 62,523 | \$ | 15,316 | \$ | $\underline{77,839}$ |

(1) Changes in interest income and interest expense attributable to changes in both volume and rate have been allocated proportionately to changes due to volume and changes due to rate.

## Provision for Credit Losses

The provision for credit losses represents the charge against current earnings that is determined by management, through a credit review process, as the amount needed to maintain an allowance for loan losses and an allowance for off-balance sheet unfunded credit commitments that management believes to be sufficient to absorb credit losses inherent in the Bank's loan portfolio and credit commitments. The Bank recorded a reversal of $\$ 4.5$ million provision for credit losses in 2018 compared with a reversal of $\$ 2.5$ million in 2017, and a reversal of $\$ 15.7$ million in 2016. Net recoveries for 2018 were $\$ 3.6$ million, or $0.03 \%$ of average loans, compared to net recoveries for 2017 of $\$ 6.8$ million, or $0.06 \%$ of average loans, and net chargeoffs for 2016 of $\$ 4.3$ million, or $0.04 \%$ of average loans.

## Non-interest Income

Non-interest income decreased $\$ 4.6$ million, or $12.7 \%$, to $\$ 31.7$ million for 2018 , from $\$ 36.3$ million for 2017, compared to $\$ 33.4$ million for 2016. Non-interest income includes depository service fees, letters of credit commissions, securities gains (losses), gains (losses) from loan sales, gains from sale of premises and equipment, gains on acquisition, and other sources of fee income. These other fee-based services include wire transfer fees, safe deposit fees, fees on loan-related activities, fee income from our Wealth Management division, and foreign exchange fees.

## Comparison of 2018 with 2017

The decrease in non-interest income from 2017 to 2018 was primarily due to a decrease of $\$ 5.3$ million in gain from acquisition of SinoPac Bancorp in 2017 and a $\$ 2.8$ million increase in net losses from equity securities, offset by a $\$ 2.8$ million increase in fees and commissions income from wealth management. No other-than-temporary write-down was recorded in 2018 and 2017.

The increase in non-interest income from 2016 to 2017 was primarily due to a $\$ 5.6$ million gain from our acquisition of SinoPac Bancorp and its subsidiary Far East National Bank and a $\$ 810,000$ increase in income from venture capital investment, offset by a $\$ 3.9$ million decrease in gains on sale of securities. We sold securities of $\$ 111.7$ million in 2017 compared to $\$ 605.5$ million in 2016. In 2017, gains of $\$ 1.7$ million and losses of $\$ 710,000$ were realized on sales of investment securities compared with gains of $\$ 5.1$ million and no losses realized in 2016 . No other-than-temporary write-down was recorded in 2017 compared to a $\$ 206,000$ write-down on one equity security in 2016.

## Non-interest Expense

Non-interest expense includes expenses related to salaries and benefits of employees, occupancy expenses, marketing expenses, computer and equipment expenses, amortization of core deposit intangibles, amortization of investment is affordable housing and alternative energy partnerships, and other operating expenses.

## Comparison of 2018 with 2017

Non-interest expense totaled $\$ 264.4$ million in 2018 compared to $\$ 236.2$ million in 2017 . The increase of $\$ 28.2$ million, or $11.9 \%$, in non-interest expense in 2018 compared to 2017 was primarily due to a combination of the following:

- Salaries and employee benefits increased $\$ 15.0$ million, or $13.7 \%$, due primarily to higher salaries and benefits and additional employee costs due in part to the hiring of additional personnel.
- Amortization of investments in affordable housing and alternative energy partnerships increased $\$ 13.3$ million, or $48.9 \%$, primarily due to higher solar system installations in 2018 compared to 2017.
- OREO expenses decreased $\$ 930,000$ primarily due to lower gains on sales of OREO.
- Professional service expenses increased $\$ 2.4$ million, or $11.6 \%$, and data processing expenses increased $\$ 1.2$ million, or $11.2 \%$, primarily due to increase in loan and deposit activities.
- Occupancy expenses increased $\$ 261,000$, or $1.3 \%$ and computer and equipment expenses increased $\$ 556,000$, or $5.1 \%$.
- Marketing expenses increased $\$ 1.6$ million, or $26.4 \%$, primarily due to increases in media and promotion expenses and higher contributions to the Cathay Bank Foundation.
- One-time acquisition and integration expenses decrease of $\$ 2.0$ million related to our acquisition of SinoPac Bancorp primarily due to acquisition related legal and professional fees in 2017.

The efficiency ratio, defined as non-interest expense divided by the sum of net interest income before provision for loan losses plus non-interest income, decreased to $44.25 \%$ in 2018 compared to $44.40 \%$ in 2017 due primarily to higher net interest income as explained above.

## Comparison of 2017 with 2016

Non-interest expense totaled $\$ 236.2$ million in 2017 compared to $\$ 224.7$ million in 2016 . The increase of $\$ 11.5$ million, or $5.1 \%$, in non-interest expense in 2017 compared to 2016 was primarily due to a combination of the following:

- Salaries and employee benefits increased $\$ 12.1$ million, or $12.4 \%$, due primarily to higher salaries and benefits and additional employee costs from our acquisition of Far East National Bank.
- Amortization of investments in affordable housing and alternative energy partnerships decreased $\$ 13.0$ million, or $32.4 \%$, primarily due to the higher amortization on alternative energy partnerships in 2016.
- OREO expenses decreased $\$ 2.5$ million primarily due to gains on sale of OREO.
- Professional service expenses increased $\$ 1.8$ million, or $9.4 \%$, and data processing expenses increased $\$ 2.2$ million, or $24.9 \%$, primarily due to our acquisition of SinoPac Bancorp.
- Occupancy expenses increased $\$ 2.1$ million, or $11.5 \%$ and computer and equipment expenses increased $\$ 1.1$ million, or $10.9 \%$, primarily due to added costs associated with the addition of Far East National Bank branches.
- Marketing expenses increased $\$ 1.1$ million, or $21.8 \%$, primarily due to increases in media, promotion and donation.
- One time acquisition and integration expenses of $\$ 4.1$ million related to our acquisition of SinoPac Bancorp.

The efficiency ratio, defined as non-interest expense divided by the sum of net interest income before provision for loan losses plus non-interest income, decreased to $44.40 \%$ in 2017 compared to $49.79 \%$ in 2016 due primarily to higher net interest income as explained above.

## Income Tax Expense

Income tax expense was $\$ 65.8$ million in 2018 , compared to $\$ 122.3$ million in 2017 , and $\$ 67.1$ million in 2016. The effective tax rate was $19.5 \%$ for $2018,41.0 \%$ for 2017 , and $27.7 \%$ for 2016 . The enactment of the 2017 Tax Cuts and Jobs Act reduced the corporate tax rate to $21 \%$ for 2018 from $35 \%$ in 2017. The effective tax rate for 2018 includes alternative energy, low-income housing and other tax credits totaling $\$ 34.5$ million. The effective tax rate for 2017 included $\$ 23.4$ million additional income tax expense related to the reevaluation of the Company's deferred tax assets resulting from the enactment of the 2017 Tax Cuts and Jobs Act, in addition to alternative energy tax credits, low-income housing and other tax credits totaling \$20.7 million recognized in 2017, and \$37.9 million recognized in 2016.

Our tax returns are open for audits by the Internal Revenue Service back to 2015 and by the California Franchise Tax Board back to 2014. From time to time, there may be differences of opinion with respect to the tax treatment accorded transactions. When, and if, such differences occur, and the related tax effects become probable and estimable, such amounts will be recognized.

## Financial Condition

Total assets were $\$ 16.8$ billion at December 31, 2018, an increase of $\$ 1.2$ billion, or $7.7 \%$, from $\$ 15.6$ billion at December 31,2017 , primarily due to an increase of $\$ 1.1$ billion in gross loans, excluding loans held for sale, offset by a decrease of $\$ 66.0$ million in securities available for sale and equity securities.

## Investment Securities

Investment securities were $\$ 1.2$ billion and represented $7.4 \%$ of total assets at December 31, 2018, compared with $\$ 1.3$ billion and $8.5 \%$ of total assets at December 31, 2017. The following table summarizes the carrying value of our portfolio of securities for each of the past two years:

| As of December 31, |
| :---: |
| $2018-2017$ |

(In thousands)

## Securities Available-for-Sale:

| U.S. treasury securities. | \$ | 124,751 | \$ | 249,520 |
| :---: | :---: | :---: | :---: | :---: |
| U.S. government agency entities. |  | 5,871 |  | 8,988 |
| U.S. government sponsored entities |  | 388,362 |  | 390,336 |
| State and municipal securities. |  | - |  | 1,914 |
| Mortgage-backed securities |  | 656,745 |  | 571,969 |
| Collateralized mortgage obligations |  | 977 |  | 1,516 |
| Corporate debt securities. |  | 65,803 |  | 81,281 |
| Total securities available-for-sale. |  | 1,242,509 | \$ | 1,305,524 |
| Equity Securities |  |  |  |  |
| Mutual funds. |  | 6,094 |  | 6,230 |
| Preferred stock of government sponsored entities |  | 7,822 |  | 10,102 |
| Other equity securities |  | 11,182 |  | 11,770 |
| Total equity securities. | \$ | 25,098 | \$ | 28,102 |

ASC Topic 320 requires an entity to assess whether it has the intent to sell the debt security or more likely than not will be required to sell the debt security before its anticipated recovery. If either of these conditions is met, an entity must recognize an other-than-temporary impairment ("OTTI") to its investment securities. If an entity does not intend to sell the debt security and will not be required to sell the debt security, the entity must consider whether it will recover the amortized cost basis of the security. If the present value of expected cash flows is less than the amortized cost basis of the security, OTTI shall be considered to have occurred. OTTI is then separated into the amount of the total impairment related to credit losses and the amount of the total impairment related to all other factors. An entity determines the impairment related to credit losses by comparing the present value of cash flows expected to be collected from the security with the amortized cost basis of the security. OTTI related to the credit loss is thereafter recognized in earnings. OTTI related to all other factors is recognized in other comprehensive income. OTTI not related to the credit loss for a held-to-maturity security should be recognized separately in a new category of other comprehensive income and amortized over the remaining life of the debt security as an increase in the carrying value of the security only when the entity does not intend to sell the security and it is not more likely than not that the entity will be required to sell the security before recovery of its remaining amortized cost basis. The Company has both the ability and the intent to hold and it is not more likely than not that the Company will be required to sell those securities with unrealized losses before recovery of their amortized cost basis.

The temporarily impaired securities represented $84.9 \%$ of the fair value of investment securities as of December 31, 2018. Unrealized losses for securities with unrealized losses for less than twelve months represented $0.35 \%$, and securities with unrealized losses for twelve months or more represented $2.85 \%$, of the historical cost of these securities as of December 31, 2018. Unrealized losses on these securities generally resulted from increases in interest rates or spreads subsequent to the date that these securities were purchased. At December 31, 2018, 14 issues of securities had unrealized losses for 12 months or longer and 90 issues of securities had unrealized losses of less than 12 months.

Total unrealized losses of $\$ 27.0$ million at December 31, 2018, were primarily caused by increases in interest rates or the widening of credit and liquidity spreads since the dates of acquisition. The contractual terms of those investments do not permit the issuers to settle the security at a price less than the amortized cost of the investment.

At December 31, 2018, management believed the impairment was temporary and, accordingly, no impairment loss on debt securities has been recognized in our Consolidated Statements of Operations. The Company expects to recover the amortized cost basis of its debt securities and has no intent to sell and believes it is more likely than not that it will not be required to sell available-for-sale debt securities that have declined below their cost before their anticipated recovery.

The tables below show the fair value and unrealized losses of the temporarily impaired securities in our investment securities portfolio as of December 31, 2018, and December 31, 2017:

|  | As of December 31, 2018 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than 12 months |  |  |  | Temporarily Impaired Securities 12 months or longer |  |  |  | Total |  |  |  |  |
|  | Fair <br> Value | Unrealized Losses |  | $\begin{gathered} \text { No. of } \\ \text { Issuances } \\ \hline \end{gathered}$ | Fair <br> Value | Unrealized Losses |  | No. of Issuances | Fair Value |  | Unrealized Losses |  | $\begin{gathered} \text { No. of } \\ \text { Issuances } \end{gathered}$ |
|  | (Dollars in thousands) |  |  |  |  |  |  |  |  |  |  |  |  |
| Securities Available-for-Sale |  |  |  |  |  |  |  |  |  |  |  |  |  |
| U.S. treasury securities . | \$ 124,751 | \$ | 51 | 4 | \$ | \$ | \$ - | - | \$ | 124,751 | \$ | 51 | 4 |
| U.S. government agency entities........ | 3,388 |  | 77 | 2 | 2,483 |  | 118 | 2 |  | 5,871 |  | 195 | 4 |
| U.S. government sponsored entities ... | - |  | - | - | 388,362 |  | 11,637 | 8 |  | 388,362 |  | 11,637 | 8 |
| Mortgage-backed securities............... | 48,528 |  | 502 | 8 | 507,701 |  | 14,587 | 74 |  | 556,229 |  | 15,089 | 82 |
| Collateralized mortgage obligations... | - |  | - | - | 977 |  | 28 | 6 |  | 977 |  | 28 | 6 |
| Total securities available-for-sale.. | \$ 176,667 | \$ | 630 | 14 | \$ 899,523 | \$ | 26,370 | 90 | \$ | 1,076,190 | \$ | 27,000 | 104 |
|  | As of December 31, 2017 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Less than 12 months |  |  |  | Temporarily Impaired Securities 12 months or longer |  |  |  | Total |  |  |  |  |
|  | Fair Value | Unrealized Losses |  | No. of Issuances | Fair <br> Value | Unrealized Losses |  | No. of Issuances | Fair Value |  | Unrealized Losses |  | No. of Issuances |
|  |  |  |  |  | (Dollars in thousands) |  |  |  |  |  |  |  |  |
| Securities Available-for-Sale |  |  |  |  |  |  |  |  |  |  |  |  |  |
| U.S. treasury securities ..................... | \$ 199,823 | \$ | 62 | 4 | \$ 49,697 | \$ | 295 | 2 | \$ | 249,520 | \$ | 357 | 6 |
| U.S. government agency entities........ | 5,711 |  | 70 | 3 | - |  | - | - |  | 5,711 |  | 70 | 3 |
| U.S. government sponsored entities ... | - |  | - | - | 390,336 |  | 9,664 | 8 |  | 390,336 |  | 9,664 | 8 |
| State and municipal securities ........... | 1,914 |  | 30 | 2 | - |  | - | - |  | 1,914 |  | 30 | 2 |
| Mortgage-backed securities.............. | 342,436 |  | 3,147 | 48 | 178,617 |  | 3,112 | 13 |  | 521,053 |  | 6,259 | 61 |
| Collateralized mortgage obligations... | 1,516 |  | 17 | 5 | - |  | - | - |  | 1,516 |  | 17 | 5 |
| Corporate debt securities ................... | 5,015 |  | 17 | 1 | - |  | - | - |  | 5,015 |  | 17 | 1 |
| Mutual funds.................................. | - |  | - | - | 6,230 |  | 270 | 1 |  | 6,230 |  | 270 | 1 |
| Total securities available-for-sale.. | \$556,415 | \$ | 3,343 | 63 | \$624,880 | \$ | 13,341 | 24 | \$ | 1,181,295 | \$ | 16,684 | 87 |

The scheduled maturities and taxable-equivalent yields by security type are presented in the following table:

## Securities Portfolio Maturity Distribution and Yield Analysis:

|  | As of December 31, 2018 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { One Year } \\ \text { or Less } \\ \hline \end{gathered}$ | After One Year to Five Years | After Five <br> Years to <br> Ten Years | $\begin{gathered} \text { Over Ten } \\ \text { Years } \\ \hline \end{gathered}$ | Total |
|  | (Dollars in thousands) |  |  |  |  |
| Maturity Distribution: |  |  |  |  |  |
| Securities Available-for-Sale: |  |  |  |  |  |
| U.S. treasury securities................................... | \$ 124,751 | \$ | \$ | \$ | \$ 124,751 |
| U.S. government agency entities ....................... | - | - | - | 5,871 | 5,871 |
| U.S. government sponsored entities ................... | - | 388,363 | - | - | 388,363 |
| Mortgage-backed securities ${ }^{(1)}$........................... | 6 | 843 | 5,553 | 650,342 | 656,744 |
| Collateralized mortgage obligations ${ }^{(1)}$................ | - |  | 303 | 673 | 977 |
| Corporate debt securities .................................. | - | 65,803 | - | - | 65,803 |
| Total securities available-for-sale ................. | \$ 124,757 | 455,010 | 5,856 | $\underline{656,886}$ | $\underline{\text { 1,242,509 }}$ |

## Weighted-Average Yield:

## Securities Available-for-Sale:

| U.S. treasury securities. | 1.55\% | -\% | -\% | -\% | 1.55\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. government agency entities . | - | - | - | 5.07 | 5.07 |
| U.S. government sponsored entities . | - | 1.66 | - | - | 1.66 |
| Mortgage-backed securities ${ }^{(1)}$. | 6.85 | 2.66 | 3.20 | 3.08 | 3.13 |
| Collateralized mortgage obligations ${ }^{(1)}$. | - | 8.75 | 2.39 | 3.48 | 3.15 |
| Corporate debt securities. | - | 3.79 | - | - | 3.79 |
| Total securities available-for-sale | 1.55 \% | 1.97\% | 3.16 $\%$ | 3.10\% | 2.53 \% |

(1) Securities reflect stated maturities and do not reflect the impact of anticipated prepayments.

## Equity Securities

The adoption of ASU 2016-01 resulted in approximately $\$ 8.6$ million being reclassified from accumulated other comprehensive income to retained earnings, representing an increase to retained earnings as of January 1, 2018. For the year ended December 31, 2018, the Company recognized a net loss of $\$ 2.8$ million due to the decrease in fair value of equity investments with readily determinable fair values. Equity securities were $\$ 25.1$ million as of December 31, 2018, compared to $\$ 28.1$ million as of December 31, 2017.

## Loans

Loans represented $89.0 \%$ of average interest-earning assets during 2018, compared with $87.5 \%$ during 2017. Gross loans, excluding loans held for sale, increased by $\$ 1.1$ billion, or $8.5 \%$, to $\$ 14.0$ billion at December 31, 2018, compared with $\$ 12.9$ billion at December 31, 2017. The increase in gross loans was primarily attributable to the following:

- Commercial mortgage loans increased $\$ 241.5$ million, or $3.7 \%$, to $\$ 6.7$ billion at December 31, 2018, compared to $\$ 6.5$ billion at December 31, 2017. Total commercial mortgage loans accounted for $48.0 \%$ of gross loans at December 31, 2018, compared to $50.4 \%$ at December 31, 2017. Commercial mortgage loans consist primarily of commercial retail properties, shopping centers, owner-occupied industrial facilities, office buildings, multiple-unit apartments, hotels, and multi-tenanted industrial properties, and are typically secured by first deeds of trust on such commercial properties.
- Total residential mortgage loans increased by $\$ 631.8$ million, or $20.6 \%$, to $\$ 3.7$ billion at December 31, 2018, compared to $\$ 3.1$ billion at December 31, 2017, primarily due to the low level of interest rates, the originations of mortgages to non-US residents secured by residential real estate in the United States, loan promotion, and loan purchase.
- Commercial loans increased $\$ 280.7$ million, or $11.4 \%$, to $\$ 2.7$ billion at December 31, 2018, compared to $\$ 2.5$ billion at December 31, 2017. Commercial loans consist primarily of short-term loans (typically with a maturity of one year or less) to support general business purposes, or to provide working capital to businesses in the form of lines of credit, trade-finance loans, loans for commercial purposes secured by cash, and SBA loans.
- Real estate construction loans decreased $\$ 97.3$ million, or $14.3 \%$, to $\$ 581.5$ million at December 31,2018 , compared to $\$ 678.8$ million at December 31, 2017.

Our lending relates predominantly to activities in the states of California, New York, Texas, Washington, Massachusetts, Illinois, New Jersey, Maryland, and Nevada. We also lend to domestic clients who are engaged in international trade. Loans outstanding in our branch in Hong Kong were $\$ 285.6$ million as of December 31, 2018, compared to $\$ 235.8$ million as of December 31, 2017.

The classification of loans by type and amount outstanding as of December 31 for each of the past five years is presented below:

| Loan Type and Mix As of December 31, |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 2018 | 2017 | 2016 | 2015 | 2014 |
| (In thousands) |  |  |  |  |
| \$ 2,741,965 | \$ 2,461,266 | \$ 2,248,187 | \$ 2,316,863 | \$ 2,382,493 |
| 3,943,820 | 3,242,354 | 2,615,759 | 2,101,335 | 1,742,938 |
| 6,724,200 | 6,482,695 | 5,785,248 | 5,301,218 | 4,486,443 |
| 581,454 | 678,805 | 548,088 | 441,543 | 298,654 |
| 4,349 | 5,170 | 3,993 | 2,493 | 3,552 |
| 13,995,788 | 12,870,290 | 11,201,275 | 10,163,452 | 8,914,080 |

Less:

| Allowance for loan losse | $(122,391)$ | $(123,279)$ | $(118,966)$ | $(138,963)$ | $(161,420)$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Unamortized deferred loan fees. | $(1,565)$ | $(3,245)$ | $(4,994)$ | $(8,262)$ | $(12,392)$ |
| Total loans and leases, net. | \$13,871,832 | \$12,743,766 | \$11,077,315 | \$10,016,227 | \$8,740,268 |
| Loans held for sale | \$ | \$ 8,000 | \$ 7,500 | \$ 6,676 | \$ 973 |

The loan maturities in the table below are based on contractual maturities. As is customary in the banking industry, loans that meet underwriting criteria can be renewed by mutual agreement between us and the borrower. Because we are unable to estimate the extent to which our borrowers will renew their loans, the table is based on contractual maturities. As a result, the data shown below should not be viewed as an indication of future cash flows.

## Contractual Maturity of Loan Portfolio



## Deposits

The Bank primarily uses customer deposits to fund its operations, and to a lesser extent borrowings in the form of securities sold under agreements to repurchase, advances from the Federal Home Loan Bank, and other borrowings. The Bank's deposits are generally obtained from the Bank's geographic market area. The Bank utilizes traditional marketing methods to attract new customers and deposits, by offering a wide variety of products and services and utilizing various forms of advertising media. Although the vast majority of the Bank's deposits are retail in nature, the Bank does engage in certain wholesale activities, primarily accepting deposits generated by brokers or Internet listing services. The Bank considers wholesale deposits to be an alternative borrowing source rather than a customer relationship and, as such, their levels are determined by management's decisions as to the most economic funding sources. Brokered-deposits totaled $\$ 902.1$ million, or $6.6 \%$, of total deposits, at December 31, 2018, compared to $\$ 756.1$ million, or $6.0 \%$, at December 31, 2017.

The Bank's total deposits increased $\$ 1.0$ billion, or $7.9 \%$, to $\$ 13.7$ billion at December 31, 2018, from $\$ 12.7$ billion at December 31, 2017, primarily due to a $\$ 1.3$ billion, or $24.5 \%$, increase in time deposits, a $\$ 74.3$ million, or $2.7 \%$, increase in non-interest bearing demand deposits offset by a $\$ 44.8$ million, or $3.2 \%$ decrease in NOW deposits, a $\$ 220.9$ million, or $9.8 \%$, decrease in money market deposits, and a $\$ 118.5$ million, or $13.8 \%$, decrease in savings deposits. The following table displays the deposit mix balances as of the end of the past three years:

## Deposit Mix <br> Year Ended December 31,

| 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Amount | Percentage | Amount | Percentage | Amount | Percentage |
|  |  | (Dollars | housands) |  |  |


| Demand deposits .............. | \$ 2,857,443 | 20.8 \% | \$ 2,783,127 | 21.9 \% | \$ 2,478,107 | 21.2 \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NOW deposits.................. | 1,365,763 | 10.0 | 1,410,519 | 11.1 | 1,230,445 | 10.6 |
| Money market deposits ..... | 2,027,404 | 14.8 | 2,248,271 | 17.7 | 2,198,938 | 18.8 |
| Savings deposits............... | 738,656 | 5.4 | 857,199 | 6.8 | 719,949 | 6.2 |
| Time deposits ................... | 6,713,074 | 49.0 | 5,390,777 | 42.5 | 5,047,287 | 43.2 |
| Total | \$ 13,702,340 | $100 \%$ | \$ 12,689,893 | $100 \%$ | \$11,674,726 | $100 \%$ |

Average total deposits increased $\$ 1.2$ billion, or $10.0 \%$, to $\$ 13.2$ billion in 2018 , compared with average total deposits of $\$ 12.0$ billion in 2017.

The following table displays average deposits and rates for the past five years:

|  | Average Deposits and Average Rates Year Ended December 31, |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  |  | 2017 |  |  | 2016 |  |  | 2015 |  | 2014 |  |
|  |  | Amount | \% |  | Amount | \% |  | Amount | \% | Amount | \% | Amount | \% |
|  | (Dollars in thousands) |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand deposits........... | \$ | 2,819,711 | -\% \$ |  | 2,599,109 | -\% |  | 2,199,274 | -\% \$ | 1,781,981 | -\% \$ | \$ 1,535,461 | -\% |
| NOW deposits... |  | 1,389,326 | 0.20 |  | 1,304,052 | 0.17 |  | 1,046,046 | 0.17 | 860,513 | 0.16 | 721,435 | 0.17 |
| Money market deposits.. |  | 2,200,847 | 0.74 |  | 2,360,188 | 0.64 |  | 2,059,823 | 0.65 | 1,677,065 | 0.60 | 1,407,053 | 0.61 |
| Savings deposits............ |  | 791,982 | 0.20 |  | 834,973 | 0.21 |  | 636,422 | 0.16 | 590,987 | 0.15 | 532,184 | 0.15 |
| Time deposits............... |  | 6,031,061 | 1.43 |  | 4,947,052 | 0.95 |  | 4,810,746 | 0.90 | 4,673,862 | 0.84 | 4,257,736 | 0.82 |
| Total | \$ | 13,232,927 | 0.81\% \$ | \$ | $\xrightarrow{12,045,374}$ | 0.55\% | \$ | $\xrightarrow{10,752,311}$ | 0.55\% \$ | 9,584,408 | 0.54\% | \$ 8,453,869 | 0.54\% |

Management considers the Bank time deposits of $\$ 250,000$ or more, which totaled $\$ 2.9$ billion at December 31, 2018, to be generally less volatile than other wholesale funding sources primarily because approximately $77.6 \%$ of the Bank's CDs of $\$ 250,000$ or more have been on deposit with the Bank for two years or more. Management monitors the CDs of $\$ 250,000$ or more portfolio to help identify any changes in the deposit behavior in the market and of the customers the Bank is serving.

Of our CDs, approximately $84.0 \%$ mature within one year as of December 31, 2018. The following tables display time deposits by maturity:

|  | Time Deposits by Maturity <br> At December 31, 2018 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Time Deposits under \$100,000 |  | Time Deposits $\$ 100,000$ and over (Dollars in thousands) |  | Total Time Deposits |  |
|  |  |  |  |  |  |  |
| Less than three months. | \$ | 553,583 | \$ | 1,221,818 | \$ | 1,775,401 |
| Three to six months |  | 283,109 |  | 526,115 |  | 809,224 |
| Six to twelve months ............................................ |  | 605,245 |  | 2,449,194 |  | 3,054,439 |
| Over one year. |  | 176,864 |  | 897,146 |  | 1,074,010 |
| Total.. | \$ | 1,618,801 | \$ | 5,094,273 | \$ | 6,713,074 |
| Percent of total deposits ....................................... |  | 11.8 |  | 37.2\% |  | 49.0\% |

The following table displays time deposits with a remaining term of more than one year at December 31, 2018:

## Maturities of Time Deposits with a Remaining Term of More Than One Year for Each of the Five Years Following December 31, 2018

|  | (In thousands) |  |
| :---: | :---: | :---: |
| 2020. | \$ | 538,309 |
| 2021. |  | 497,601 |
| 2022. |  | 719 |
| 2023. |  | 37,370 |
| 2024. |  | 11 |

## Borrowings

Borrowings include securities sold under agreements to repurchase, Federal funds purchased, funds obtained as advances from the Federal Home Loan Bank ("FHLB") of San Francisco, and borrowings from other financial institutions.

Securities sold under agreements to repurchase were zero at December 31, 2018, compared to $\$ 100.0$ million with a weighted average rate of $2.86 \%$ at December 31, 2017. As of December 31, 2017, two fixed rate non-callable securities sold under agreements to repurchase totaling $\$ 100$ million with a weighted average rate of $2.86 \%$ as of December 31, 2017.

These transactions are accounted for as collateralized financing transactions and recorded at the amounts at which the securities were sold. The Company may have to provide additional collateral for the repurchase agreements, as necessary. There were no repurchase agreements at December 31, 2018. The underlying collateral pledged for the repurchase agreements consists of U.S. Treasury securities and mortgage-backed securities with a fair value of $\$ 108.4$ million as of December 31, 2017.

The table below provides comparative data for securities sold under agreements to repurchase for the years indicated:

| 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (Dollars in thousands) |  |  |  |  |  |
| \$ | 49,589 | \$ | 136,849 | \$ | 381,967 |
|  | 100,000 |  | 150,000 |  | 400,000 |
|  | - |  | 100,000 |  | 350,000 |
|  | -\% |  | 2.86\% |  | 4.06\% |
|  | -\% |  | 3.11\% |  | 4.01\% |


| Average amount outstanding during the year ${ }^{(1)}$ | \$ | 49,589 | \$ | 136,849 | \$ | 381,967 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maximum amount outstanding at month-end ${ }^{(2)}$ |  | 100,000 |  | 150,000 |  | 400,000 |
| Balance, December 31. |  | - |  | 100,000 |  | 350,000 |
| Rate, December 31 |  |  |  | 2.86\% |  | 4.06\% |
| Weighted average interest rate for the year |  |  |  | 3.11\% |  | 4.01\% |

(1) Average balances were computed using daily averages.
(2) Highest month-end balances were January 2018, January 2017, and January 2016.

As of December 31, 2018, over-night borrowings from the FHLB were $\$ 200.0$ million at a rate of $2.56 \%$ compared to $\$ 325.0$ million at a rate of $1.41 \%$ at December 31, 2017. As of December 31, 2018, the advances from the FHLB were $\$ 330$ million at a rate of $2.42 \%$ compared to $\$ 105$ million at a rate of $1.41 \%$ as of December 31, 2017. As of December 31, 2018, final maturity for the FHLB advances is $\$ 260$ million in January 2019, $\$ 50$ million in December 2019, and $\$ 20$ million in May 2023.

Pursuant to the Stock Purchase Agreement with Bank SinoPac Co. Ltd, the Company paid $\$ 100$ million of the purchase price on November 14, 2017, 30 days after receipt of regulatory approval for the merger of FENB into Cathay Bank. The residual payable balance of $\$ 35.2$ million has a floating rate of three-month LIBOR rate plus 150 basis points. As of December 31,2018 , outstanding payable balance of $\$ 17.6$ million has an interest rate of $4.30 \%$. The remaining payments are $\$ 10.6$ million in July 2019 and $\$ 7.0$ million in July 2020 together with applicable accrued interest.

## Long-term Debt

On October 12, 2017, the Bank entered into a term loan agreement of $\$ 75.0$ million with U.S. Bank. The principal amount outstanding as of December 31, 2018 was $\$ 70.3$ million. The loan has a floating rate of one-month LIBOR plus 175 basis points. As of December 31, 2018, the term loan has an interest rate of $4.125 \%$ compared to $3.125 \%$ at December 31, 2017. The principal amount of the long-term debt from U.S. Bank is due and payable in consecutive quarterly installments in the amount of $\$ 4.7$ million each on the last day of each calendar quarter commencing December 31, 2018, with the final installment due and payable on October 12, 2020. The U.S. Bank loan proceeds were used to fund our acquisition of SinoPac Bancorp.

We established three special purpose trusts in 2003 and two in 2007 for the purpose of issuing Guaranteed Preferred Beneficial Interests in their Subordinated Debentures to outside investors ("Capital Securities"). The proceeds from the issuance of the Capital Securities as well as our purchase of the common stock of the special purpose trusts were invested in Junior Subordinated Notes of the Company ("Junior Subordinated Notes"). The trusts exist for the purpose of issuing the Capital Securities and investing in Junior Subordinated Notes. Subject to some limitations, payment of distributions out of the monies held by the trusts and payments on liquidation of the trusts, or the redemption of the Capital Securities, are guaranteed by the Company to the extent the trusts have funds on hand at such time. The obligations of the Company under the guarantees and the Junior Subordinated Notes are subordinate and junior in right of payment to all indebtedness of the Company and will be structurally subordinated to all liabilities and obligations of the Company's subsidiaries. The Company has the right to defer payments of interest on the Junior Subordinated Notes at any time or from time to time for a period of up to twenty consecutive quarterly periods with respect to each deferral period. Under the terms of the Junior Subordinated Notes, the Company may not, with certain exceptions, declare or pay any dividends or distributions on its capital stock or purchase or acquire any of its capital stock if it has deferred payment of interest on any Junior Subordinated Notes.

At December 31, 2018, Junior Subordinated Notes totaled $\$ 119.1$ million with a weighted average interest rate of $4.96 \%$, compared to $\$ 119.1$ million with a weighted average rate of $3.78 \%$ at December 31, 2017. The Junior Subordinated Notes have a stated maturity term of 30 years. As of December 31, 2017, the Company's assets exceeded the $\$ 15$ billion threshold and, as a result, the Junior Suubordinated Notes no longer qualify as Tier 1 capital for regulatory reporting purposes. The Junior Subordinated Notes qualify as Tier 1 capital for regulatory reporting purposes at December 31, 2016. The trusts are not consolidated with the Company in accordance with an accounting pronouncement that took effect in December 2003.

## Off-Balance-Sheet Arrangements, Commitments, Guarantees, and Contractual Obligations

The following table summarizes our contractual obligations and commitments to make future payments as of December 31, 2018. Payments for deposits and borrowings do not include interest. Payments related to leases are based on actual payments specified in the underlying contracts. Loan commitments and standby letters of credit are presented at contractual amounts; however, since many of these commitments are expected to expire unused or only partially used, the total amounts of these commitments do not necessarily reflect future cash requirements.

|  | Payment Due by Period |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 year or less |  | More than 1 year but less than 3 years |  | 3 years or more but less than 5 years |  | 5 years or more |  | Total |  |
|  | (In thousands) |  |  |  |  |  |  |  |  |  |
| Contractual obligations: |  |  |  |  |  |  |  |  |  |  |
| Advances from the Federal Home Loan Bank ..... | \$ | 510,000 | \$ | \$ | \$ | 20,000 | \$ | - | \$ | 530,000 |
| Other borrowings. |  | 10,547 |  | 7,031 |  | - |  | 17,298 |  | 34,876 |
| Long-term debt. |  | 18,750 |  | 51,562 |  | - |  | 119,136 |  | 189,448 |
| Operating leases .............................................. |  | 8,835 |  | 13,626 |  | 9,614 |  | 4,899 |  | 36,974 |
| Deposits with stated maturity dates leases ........... |  | 5,639,064 |  | 1,035,910 |  | 38,089 |  | 11 |  | 6,713,074 |
| Total contractual obligations and other commitments $\qquad$ | \$ | \$ 6,187,196 |  | \$ 1,108,129 | \$ | 67,703 | \$ | 141,344 | \$ | 7,504,372 |
| Other commitments: |  |  |  |  |  |  |  |  |  |  |
| Commitments to extend credit........................ |  | 1,095,277 |  | 965,321 |  | 265,665 |  | 365,316 |  | 2,691,579 |
| Standby letters of credit ................................ |  | 99,587 |  | 79,436 |  | 39,442 |  | 26,622 |  | 245,087 |
| Commercial letters of credit .......................... |  | 35,759 |  | - |  | - |  | - |  | 35,759 |
| Bill of lading guarantees ................................ |  | 730 |  | - |  | - |  | - |  | 730 |
| Total contractual obligations and other commitments $\qquad$ |  | $\underline{\text { 1,231,353 }}$ |  | \$ 1,044,757 | \$ | 305,107 | \$ | 391,938 | \$ | 2,973,155 |

In the normal course of business, we enter into various transactions, which, in accordance with U.S. generally accepted accounting principles, are not included in our Consolidated Balance Sheets. We enter into these transactions to meet the financing needs of our customers. These transactions include commitments to extend credit and standby letters of credit, which involve, to varying degrees, elements of credit risk and interest rate risk in excess of the amounts recognized in the Consolidated Balance Sheets.

Loan Commitments. We enter into contractual commitments to extend credit, normally with fixed expiration dates or termination clauses, at specified rates and for specific purposes. Substantially all of our commitments to extend credit are contingent upon customers maintaining specific credit standards at the time of loan funding. We minimize our exposure to loss under these commitments by subjecting them to credit approval and monitoring procedures. Management assesses the credit risk associated with certain commitments to extend credit in determining the level of the allowance for credit losses.

Standby Letters of Credit. Standby letters of credit are written conditional commitments issued by us to secure the obligations of a customer to a third party. In the event the customer does not perform in accordance with the terms of an agreement with the third party, we would be required to fund the commitment. The maximum potential amount of future payments we could be required to make is represented by the contractual amount of the commitment. If the commitment is funded, we would be entitled to seek reimbursement from the customer. Our policies generally require that standby letter of credit arrangements contain security and debt covenants similar to those contained in loan agreements.

## Capital Resources

## Stockholders' Equity

Total equity was $\$ 2.1$ billion at December 31 , 2018, an increase of $\$ 148.6$ million, or $7.5 \%$, from $\$ 1.97$ billion at December 31, 2017, primarily due to net income of $\$ 271.9$ million, proceeds from dividend reinvestment of $\$ 2.8$ million, stock based compensation of $\$ 7.3$ million, and proceeds from exercise of stock options of $\$ 838,000$, offset by shares withheld related to net share settlement of RSUs of $\$ 2.4$ million, purchase of treasury stock of $\$ 42.6$ million, common stock cash dividends of $\$ 83.4$ million and change in other comprehensive income of $\$ 6.4$ million. The Company paid cash dividends of $\$ 1.03$ per common share in $2018, \$ 0.87$ per common share in 2017 , and $\$ 0.75$ per common share in 2016.

On February 1, 2016, the Board of Directors approved a stock repurchase program to buy back up to $\$ 45.0$ million of our common stock. In 2016, the Company repurchased $1,380,578$ shares for $\$ 37.5$ million, or $\$ 27.13$ per share under the February 2016 repurchase program. In October 2018, the Company repurchased 200,326 shares for $\$ 7.5$ million, or $\$ 37.65$ per share and completed its February 2016 repurchase program.

On October 26, 2018, the Board of Directors approved a new stock repurchase program to buy back up to $\$ 45.0$ million of our common stock. In 2018, the Company repurchased 913,400 shares for $\$ 35.1$ million, or $\$ 38.43$ per share under the October 2018 repurchase program. As of December 31, 2018, the Company may repurchase up to $\$ 9.9$ million of its common stock under the October 2018 repurchase program.

## Capital Adequacy

Management seeks to retain our capital at a level sufficient to support future growth, protect depositors and stockholders, and comply with various regulatory requirements. The primary measure of capital adequacy is based on the ratio of riskbased capital to risk-weighted assets. At December 31, 2018, the Company's Tier 1 risk-based capital ratio of $12.43 \%$, total risk-based capital ratio of $14.15 \%$, and Tier 1 leverage capital ratio of $10.83 \%$, calculated under the new Basel III capital rules that became effective January 1, 2015, continue to place the Company in the "well capitalized" category for regulatory purposes, which is defined as institutions with a Tier 1 risk-based capital ratio equal to or greater than $8 \%$, a total risk-based capital ratio equal to or greater than $10 \%$, and a Tier 1 leverage capital ratio equal to or greater than $5 \%$. At December 31, 2017 , the Company's common equity Tier 1 capital ratio was $12.19 \%$, Tier 1 risk-based capital ratio was $12.19 \%$, total riskbased capital ratio was $14.11 \%$, and Tier 1 leverage capital ratio was $10.35 \%$.

A table displaying the Bancorp's and the Bank's capital and leverage ratios at December 31, 2018, and 2017, is included in Note 22 to the Consolidated Financial Statements.

## Dividend Policy

Holders of common stock are entitled to dividends as and when declared by our Board of Directors out of funds legally available for the payment of dividends. Although we have historically paid cash dividends on our common stock, we are not required to do so. We increased the common stock dividend from $\$ .18$ per share in the fourth quarter of 2015 , to $\$ .21$ per share in the fourth quarter of 2016 , to $\$ .24$ per share in the fourth quarter of 2017 , and to $\$ .31$ per share in the fourth quarter of 2018. The amount of future dividends will depend on our earnings, financial condition, capital requirements and other factors, and will be determined by our Board of Directors. The terms of our Junior Subordinated Notes also limit our ability to pay dividends. If we are not current in our payment of dividends on our Junior Subordinated Notes, we may not pay dividends on our common stock.

Substantially all of the revenues of the Company available for payment of dividends derive from amounts paid to it by the Bank. The Bank paid dividends to the Bancorp totaling $\$ 127.8$ million during 2018, $\$ 208.2$ million during 2017, and $\$ 113.4$ million during 2016. In October 2017, Far East National Bank paid a dividend of $\$ 57.0$ million to the Bancorp.

The Federal Reserve Board issued Federal Reserve Supervision and Regulation Letter SR-09-4 that states that bank holding companies are expected to inform and consult with the Federal Reserve supervisory staff prior to declaring and paying a dividend that exceeds earnings for the period for which the dividend is being paid.

Under California State banking law, the Bank may not without regulatory approval pay a cash dividend which exceeds the lesser of the Bank's retained earnings or its net income for the last three fiscal years, less any cash distributions made during that period. Under this regulation, the amount of retained earnings available for cash dividends to the Company immediately after December 31, 2018, was restricted to approximately $\$ 189.0$ million.

## Risk Elements of the Loan Portfolio

## Non-performing Assets

Non-performing assets include loans past due 90 days or more and still accruing interest, non-accrual loans, and OREO. Our policy is to place loans on non-accrual status if interest and principal or either interest or principal is past due 90 days or more, or in cases where management deems the full collection of principal and interest unlikely. After a loan is placed on non-accrual status, any previously accrued but unpaid interest is reversed and charged against current income and subsequent payments received are generally first applied towards the outstanding principal balance of the loan. Depending on the circumstances, management may elect to continue the accrual of interest on certain past due loans if partial payment is received and/or the loan is well collateralized and in the process of collection. The loan is generally returned to accrual status when the borrower has brought the past due principal and interest payments current and, in the opinion of management, the borrower has demonstrated the ability to make future payments of principal and interest as scheduled.

Management reviews the loan portfolio regularly for problem loans. During the ordinary course of business, management becomes aware of borrowers that may not be able to meet the contractual requirements of the loan agreements. Such loans are placed under closer supervision with consideration given to placing the loan on non-accrual status, the need for an additional allowance for loan losses, and (if appropriate) partial or full charge-off.

Total non-performing portfolio assets increased $\$ 33,000$, or $0.1 \%$, to $\$ 58.3$ million at December 31, 2018, compared to $\$ 58.2$ million at December 31, 2017, primarily due to increases of $\$ 3.2$ million and $\$ 3.8$ million in OREO and accruing loans past due 90 days or more, respectively, offset by a $\$ 7.0$ million decrease in non-accrual loans.

As a percentage of gross loans, excluding loans held for sale, plus OREO, our non-performing assets decreased to $0.42 \%$ at December 31, 2018, from $0.45 \%$ at December 31, 2017. The non-performing portfolio loan, excluding loans held for sale, coverage ratio, defined as the allowance for credit losses to non-performing loans, excluding loans held for sale, increased to $273.4 \%$ at December 31, 2018, from $262.1 \%$ at December 31, 2017. The following table presents the breakdown of total nonaccrual, past due, and restructured loans for the past five years:

## Non-accrual, Past Due and Restructured Loans

|  | As of December 31, |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  | 2015 |  | 2014 |  |
|  | (Dollars in thousands) |  |  |  |  |  |  |  |  |  |
| Accruing loans past due 90 days or more. | \$ | 3,773 | \$ | - | \$ | - | \$ | - | \$ | - |
| Non-accrual loans. |  | 41,815 |  | 48,787 |  | 49,682 |  | 52,130 |  | 70,163 |
| Total non-performing loans |  | 45,588 |  | 48,787 |  | 49,682 |  | 52,130 |  | 70,163 |
| Real estate acquired in foreclosure and other assets...... |  | 12,674 |  | 9,442 |  | 20,070 |  | 24,701 |  | 31,477 |
| Total non-performing assets | \$ | 58,262 | \$ | 58,229 | \$ | 69,752 | \$ | 76,831 | \$ | 101,640 |
| Accruing troubled debt restructurings (TDRs) .............. | \$ | 65,071 | \$ | 68,565 | \$ | 65,393 | \$ | 81,680 | \$ | 104,356 |
| Non-accrual TDRs (included in non-accrual loans) ...... | \$ | 24,189 | \$ | 33,416 | \$ | 29,722 | \$ | 39,923 | \$ | 41,618 |
| Non-accrual loans held for sale ................................. | \$ | - | \$ | 8,000 | \$ | 7,500 | \$ | 5,944 | \$ | 973 |
| Non-performing assets as a percentage of gross loans and OREO at year-end |  | 0.42\% |  | 0.45\% |  | 0.62\% |  | 0.75\% |  | 1.14\% |
| Allowance for credit losses as a percentage of gross loans. |  | 0.89\% |  | 0.99\% |  | 1.09\% |  | 1.38\% |  | 1.83\% |
| Allowance for credit losses as a percentage of nonperforming loans. $\qquad$ |  | 273.41\% |  | 262.09\% |  | 245.94\% |  | 269.44\% |  | 232.84\% |

The effect of non-accrual loans on interest income for the past five years is presented below:

|  | Year Ended December 31, |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  | 2015 |  | 2014 |  |
|  | (In thousands) |  |  |  |  |  |  |  |  |  |
| Non-accrual Loans |  |  |  |  |  |  |  |  |  |  |
| Contractual interest due ................................ | \$ | 1,618 | \$ | 3,254 | \$ | 1,573 | \$ | 5,732 | \$ | 6,663 |
| Interest recognized ...................................... |  | 66 |  | 86 |  | 95 |  | 119 |  | 217 |
| Net interest foregone ................................ | \$ | 1,552 | \$ | 3,168 | \$ | 1,478 | \$ | 5,613 | \$ | 6,446 |

As of December 31, 2018, there were no commitments to lend additional funds to those borrowers whose loans had been restructured, were considered impaired, or were on non-accrual status.

## Non-accrual Loans

Total non-accrual portfolio loans, excluding loans held for sale, of $\$ 41.8$ million at December 31, 2018, decreased $\$ 7.0$ million, or $14.3 \%$, from $\$ 48.8$ million at December 31, 2017. The allowance for the collateral-dependent impaired loans is calculated by the difference between the outstanding loan balance and the value of the collateral as determined by recent appraisals, sales contracts, or other available market price information. The allowance for collateral-dependent impaired loans varies from loan to loan based on the collateral coverage of the loan at the time of designation as non-performing. We continue to monitor the collateral coverage, based on recent appraisals, on these loans on a quarterly basis and adjust the allowance accordingly.

The following tables present the type of properties securing the non-accrual portfolio loans and the type of businesses the borrowers engaged in as of the dates indicated:

|  | December 31, 2018 |  |  |  |  | December 31, 2017 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Real <br> Estate ${ }^{(1)}$ |  |  | Commercial |  | Real <br> Estate ${ }^{(1)}$ |  | Commercial |  |
|  |  |  |  |  | (In th | ou |  |  |  |
| Type of Collateral |  |  |  |  |  |  |  |  |  |
| Single/Multi-family residence. |  | \$ | 11,366 | \$ | 8,016 | \$ | 14,952 | \$ | 7,575 |
| Commercial real estate. |  |  | 11,452 |  | - |  | 19,540 |  | - |
| Personal property (UCC). |  |  | 192 |  | 10,789 |  | - |  | 6,721 |
| Total. |  | \$ | 23,010 | \$ | 18,805 | \$ | 34,492 | \$ | 14,296 |

(1) Real estate includes commercial mortgage loans, real estate construction loans, and residential mortgage loans and equity lines.

|  | December 31, 2018 |  |  |  | December 31, 2017 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Real <br> Estate ${ }^{(1)}$ |  | Commercial |  | Real <br> Estate ${ }^{(1)}$ |  | Commercial |  |
|  |  |  |  | (In t | Ou |  |  |  |
| Type of Business |  |  |  |  |  |  |  |  |
| Real estate development........................................ | \$ | 9,826 | \$ | - | \$ | 16,672 | \$ | - |
| Wholesale/Retail .................................................. |  | 5,784 |  | 14,078 |  | 11,429 |  | 7,743 |
| Food/Restaurant |  | - |  | - |  | 137 |  | - |
| Import/Export...................................................... |  | - |  | 4,727 |  | - |  | 6,553 |
| Other.................................................................. |  | 7,400 |  | - |  | 6,254 |  | - |
| Total............................................................... | \$ | 23,010 | \$ | 18,805 | \$ | 34,492 | \$ | 14,296 |

(1) Real estate includes commercial mortgage loans, real estate construction loans, and residential mortgage loans and equity lines.

## Troubled Debt Restructurings

A troubled debt restructuring ("TDR") is a formal modification of the terms of a loan when the Bank, for economic or legal reasons related to the borrower's financial difficulties, grants a concession to the borrower. The concessions may be granted in various forms, including reduction of the stated interest rate, reduction of the amount of principal amortization, forgiveness of a portion of a loan balance or accrued interest, or an extension of the maturity date. Although these loan modifications are considered under ASC Subtopic 310-40 to be TDRs, the loans must have, pursuant to the Bank's policy, performed under the restructured terms and have demonstrated sustained performance under the modified terms for six months before being returned to accrual status. The sustained performance considered by management pursuant to its policy includes the periods prior to the modification if the prior performance met or exceeded the modified terms. This would include cash paid by the borrower prior to the restructure to set up interest reserves.

A summary of TDRs by type of loan and by accrual/non-accrual status is shown below:




The activity within our TDR loans for 2018, 2017, and 2016 is shown below:

| Accruing TDRs | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (In thousands) |  |  |  |  |  |
| Beginning balance. | \$ | 68,565 | \$ | 65,393 | \$ | 81,680 |
| New restructurings . |  | 26,114 |  | 73,426 |  | 26,965 |
| Restructured loans restored to accrual status |  | 2,896 |  | - |  | 10,303 |
| Charge-offs |  | - |  | - |  | (88) |
| Payments. |  | $(30,406)$ |  | $(54,095)$ |  | $(24,192)$ |
| Restructured loans placed on non-accrual. |  | $(2,098)$ |  | $(13,919)$ |  | $(13,984)$ |
| Expiration of loan concession |  | - |  | (2,240) |  | (15,291) |
| Ending balance. | \$ | 65,071 | \$ | 68,565 | \$ | 65,393 |
| Non-accrual TDRs | 2018 |  | 2017 |  | 2016 |  |
|  | (In thousands) |  |  |  |  |  |
| Beginning balance..................................................................... | \$ | 33,416 | \$ | 29,722 | \$ | 39,923 |
| New restructurings. |  | 3,015 |  | 4,009 |  | 6,940 |
| Restructured loans placed on non-accrual. |  | 2,098 |  | 13,919 |  | 13,984 |
| Charge-offs |  | $(2,347)$ |  | $(1,650)$ |  | $(5,271)$ |
| Payments .................................................................................. |  | $(9,097)$ |  | (11,341) |  | $(15,551)$ |
| Foreclosures |  | - |  | $(1,243)$ |  | - |
| Restructured loans restored to accrual status |  | $(2,896)$ |  | - |  | (10,303) |
| Ending balance.......................................................................... | \$ | 24,189 | \$ | 33,416 | \$ | 29,722 |

## Impaired Loans

A loan is considered impaired when it is probable that a creditor will be unable to collect all amounts due according to the contractual terms of the loan agreement based on current circumstances and events. The assessment for impairment occurs when and while such loans are on non-accrual as a result of delinquency of over 90 days or receipt of information indicating that full collection of principal is doubtful, or when the loan has been restructured in a troubled debt restructuring. Those loans with a balance less than our defined selection criteria, generally when a loan amount is $\$ 500,000$ or less, are treated as a homogeneous portfolio. If loans meeting the defined criteria are not collateral dependent, we measure the impairment based on the present value of the expected future cash flows discounted at the loan's effective interest rate. If loans meeting the defined criteria are collateral dependent, we measure the impairment by using the loan's observable market price or the fair value of the collateral. We obtain an appraisal to determine the amount of impairment at the date that the loan becomes impaired. The appraisals are based on "as is" or bulk sale valuations. To ensure that appraised values remain current, we generally obtain an updated appraisal every twelve months from qualified independent appraisers. If the fair value of the collateral is less than the recorded amount of the loan, we then recognize impairment by creating or adjusting an existing valuation allowance with a corresponding charge to the provision for loan losses. If an impaired loan is expected to be collected through liquidation of the collateral, the amount of impairment, excluding disposal costs, which range between $3 \%$ to $6 \%$ of the fair value, depending on the size of impaired loan, is charged off against the allowance for loan losses. Nonaccrual impaired loans are not returned to accruing status unless the unpaid interest has been brought current and full repayment of the recorded balance is expected or if the borrower has made six consecutive monthly payments of the scheduled amounts due and are continued to be reviewed for impairment until they are no longer reported as TDRs.

We identified impaired loans with a recorded investment of $\$ 106.9$ million at December 31, 2018, compared to $\$ 117.4$ million at December 31, 2017. The average balance of impaired loans was $\$ 122.6$ million in 2018 and $\$ 127.1$ million in 2017. We considered all non-accrual loans to be impaired. Interest recognized on impaired loans totaled $\$ 3.2$ million in 2018 and $\$ 3.3$ million in 2017. As of December 31, 2018, $\$ 23.0$ million, or $55.0 \%$, of the $\$ 41.8$ million of non-accrual portfolio loans, excluding loans held for sale, was secured by real estate. As of December 31, 2017, $\$ 34.5$ million, or $70.7 \%$, of the $\$ 48.8$ million of non-accrual portfolio loans, excluding loans held for sale, was secured by real estate. The Bank seeks to obtain current appraisals or other available market price information to assist in evaluating potential loss exposure.

At December 31, 2018, $\$ 3.8$ million of the $\$ 122.4$ million allowance for loan losses was allocated for impaired loans and $\$ 118.6$ million was allocated to the general allowance. At December 31, 2017, $\$ 2.1$ million of the $\$ 123.3$ million allowance for loan losses was allocated for impaired loans and $\$ 121.1$ million was allocated to the general allowance. In 2018, net loan recoveries were $\$ 3.6$ million, or $0.03 \%$, of average loans, compared to net loan recoveries of $\$ 6.8$ million, or $0.06 \%$, of average loans in 2017.

The allowance for loan losses to non-performing loans, excluding loans held for sale, was $268.5 \%$ at December 31, 2018, compared to $252.7 \%$ at December 31, 2017. Non-accrual loans also include those TDRs that do not qualify for accrual status.

The following table presents impaired loans and the related allowance as of the dates indicated:

|  | Impaired Loans |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | As of December 31, 2018 |  |  |  |  |  | As of December 31, 2017 |  |  |  |  |  |
|  |  | Unpaid rincipal <br> Balance | Recorded <br> Investment |  | Allowance |  | Unpaid Principal Balance |  | Recorded Investment |  | Allowance |  |
|  | (In thousands) |  |  |  |  |  |  |  |  |  |  |  |
| With no allocated allowance |  |  |  |  |  |  |  |  |  |  |  |  |
| Commercial loans. | \$ | 32,015 | \$ | 30,368 | \$ | - | \$ | 43,483 | \$ | 42,702 | \$ |  |
| Real estate construction loans. |  | 5,776 |  | 4,873 |  |  |  | 8,821 |  | 8,185 |  |  |
| Commercial mortgage loans ................ |  | 34,129 |  | 24,409 |  | - |  | 37,825 |  | 31,029 |  |  |
| Residential mortgage and equity lines .. |  | 5,685 |  | 5,665 |  | - |  | 1,301 |  | 1,301 |  |  |
| Subtotal | \$ | 77,605 | \$ | 65,315 | \$ | - | \$ | 91,430 | \$ | 83,217 | \$ | - |
| With allocated allowance |  |  |  |  |  |  |  |  |  |  |  |  |
| Commercial loans | \$ | 6,653 | \$ | 6,570 | \$ | 1,837 | \$ | 891 | \$ | 793 | \$ | 43 |
| Commercial mortgage loans ................ |  | 27,099 |  | 27,063 |  | 877 |  | 21,733 |  | 21,635 |  | 1,738 |
| Residential mortgage and equity lines .. |  | 8,934 |  | 7,938 |  | 1,088 |  | 13,022 |  | 11,708 |  | 353 |
| Subtotal | \$ | 42,686 | \$ | 41,571 | \$ | 3,802 | \$ | 35,646 | \$ | 34,136 | \$ | 2,134 |
| Total impaired loans | \$ | 120,291 | \$ | 106,886 | \$ | 3,802 | \$ | 127,076 | \$ | 117,353 | \$ | 2,134 |

## Loan Interest Reserves

In accordance with customary banking practice, construction loans and land development loans generally are originated where interest on the loan is disbursed from pre-established interest reserves included in the total original loan commitment. Our construction and land development loans generally include optional renewal terms after the maturity of the initial loan term. New appraisals are typically obtained prior to extension or renewal of these loans in part to help determine the appropriate interest reserve to be established for the new loan term. Loans with interest reserves are underwritten to the same criteria, including loan to value and, if applicable, pro forma debt service coverage ratios, as loans without interest reserves. Construction loans with interest reserves are monitored on a periodic basis to gauge progress towards completion. Interest reserves are generally frozen if the Bank becomes aware that additional draws would result in a loan to value ratio that exceeds policy maximums based on collateral type. Our policy limits in this regard are consistent with supervisory limits and range from $65 \%$ in the case of land to $85 \%$ in the case of 1 - to 4 -family residential construction projects.

As of December 31, 2018, construction loans of $\$ 524.4$ million were disbursed with pre-established interest reserves of $\$ 65.2$ million compared to $\$ 545.0$ million of such loans disbursed with pre-established interest reserves of $\$ 72.3$ million at December 31, 2017. The balance for construction loans with interest reserves which have been renewed was $\$ 88.8$ million with pre-established interest reserves of $\$ 3.9$ million at December 31, 2018, compared to $\$ 62.1$ million with pre-established interest reserves of $\$ 2.0$ million at December 31, 2017. Land loans of $\$ 24.1$ million were disbursed with pre-established interest reserves of $\$ 770,000$ at December 31, 2018, compared to $\$ 32.7$ million land loans disbursed with pre-established interest reserves of $\$ 1.3$ million at December 31, 2017. The balance for land loans with interest reserves which have been renewed was $\$ 5.6$ million at December 31, 2018 with pre-established interest reserves of $\$ 71,000$, compared to $\$ 6.9$ million land loans with pre-established interest reserves of \$221,000 at December 31, 2017.

At December 31, 2018, the Bank had no loans on non-accrual status with available interest reserves. At December 31, 2018, $\$ 4.9$ million of non-accrual non-residential construction loans, had been originated with pre-established interest reserves. At December 31, 2017, $\$ 8.2$ million of non-accrual non-residential construction loans and $\$ 8.0$ million of nonaccrual land loans had been originated with pre-established interest reserves. While loans with interest reserves are typically expected to be repaid in full according to the original contractual terms, some loans require one or more extensions beyond the original maturity. Typically, these extensions are required due to construction delays, delays in the sale or lease of property, or some combination of these two factors.

## Loan Concentration

Most of our business activity is in markets with a concentration of Chinese-American individuals and businesses located in California; New York City; Dallas and Houston, Texas; Seattle, Washington; Boston, Massachusetts; Chicago, Illinois; Nevada; New Jersey; and Maryland. We have no specific industry concentration, and generally our loans are collateralized with real property or other pledged collateral. Loans are generally expected to be paid off from the operating profits of the borrowers, refinancing by another lender, or through sale by the borrowers of the secured collateral.

The Federal banking regulatory agencies issued final guidance on December 6, 2006, regarding risk management practices for financial institutions with high or increasing concentrations of commercial real estate ("CRE") loans on their balance sheets. The regulatory guidance reiterates the need for sound internal risk management practices for those institutions that have experienced rapid growth in CRE lending, have notable exposure to specific types of CRE, or are approaching or exceeding the supervisory criteria used to evaluate the CRE concentration risk, but the guidance is not to be construed as a limit for CRE exposure. The supervisory criteria are: (1) total reported loans for construction, land development, and other land represent $100 \%$ of the institution's total risk-based capital, and (2) both total CRE loans represent $300 \%$ or more of the institution's total risk-based capital and the institution's CRE loan portfolio has increased $50 \%$ or more within the last thirtysix months. The Bank's loans for construction, land development, and other land represented $33 \%$ of total risk-based capital as of December 31, 2018, and $41 \%$ as of December 31, 2017. Total CRE loans represented $268 \%$ of total risk-based capital as of December 31, 2018, and $293 \%$ as of December 31, 2017, which were within the Bank's internal limit of $400 \%$, of total capital. See Part I - Item 1A - "Risk Factors" for a discussion of some of the factors that may affect us.

## Allowance for Credit Losses

The Bank maintains the allowance for credit losses at a level that the Bank's management considers appropriate to cover the estimated and known inherent risks in the loan portfolio and off-balance sheet unfunded credit commitments. Allowance for credit losses is comprised of allowances for loan losses and for off-balance sheet unfunded credit commitments. With this risk management objective, the Bank's management has an established monitoring system that is designed to identify impaired and potential problem loans, and to permit periodic evaluation of impairment and the adequacy level of the allowance for credit losses in a timely manner.

In addition, the Board of Directors of the Bank has established a written credit policy that includes a credit review and control system that it believes should be effective in ensuring that the Bank maintains an appropriate allowance for credit losses. The Board of Directors provides oversight for the allowance evaluation process, including quarterly evaluations, and determines whether the allowance is appropriate to absorb losses in the credit portfolio. The determination of the amount of the allowance for credit losses and the provision for credit losses is based on management's current judgment about the credit quality of the loan portfolio and takes into consideration known relevant internal and external factors that affect collectability when determining the appropriate level for the allowance for credit losses. The nature of the process by which the Bank determines the appropriate allowance for credit losses requires the exercise of considerable judgment. Additions or reductions to the allowance for credit losses are made by charges or credits to the provision for credit losses. Identified credit exposures that are determined to be uncollectible are charged against the allowance for credit losses. Recoveries of previously charged off amounts, if any, are credited to the allowance for credit losses. A weakening of the economy or other factors that adversely affect asset quality can result in an increase in the number of delinquencies, bankruptcies, and defaults, and a higher level of non-performing assets, net charge-offs, and provision for loan losses. See Part I — Item 1A — "Risk Factors" for additional factors that could cause actual results to differ materially from forward-looking statements or historical performance.

The allowance for loan losses was $\$ 122.4$ million and the allowance for off-balance sheet unfunded credit commitments was $\$ 2.3$ million at December 31, 2018, which represented the amount believed by management to be appropriate to absorb credit losses inherent in the loan portfolio. The allowance for credit losses, which is the sum of the allowances for loan losses and for off-balance sheet unfunded credit commitments, was $\$ 124.6$ million at December 31, 2018, compared to $\$ 127.9$ million at December 31, 2017, a decrease of $\$ 3.3$ million, or $2.6 \%$. The allowance for credit losses represented $0.89 \%$ of period-end gross loans and $273.4 \%$ of non-performing loans at December 31, 2018. The comparable ratios were $0.99 \%$ of period-end gross loans and 262.1\% of non-performing loans at December 31, 2017.

The following table sets forth the information relating to the allowance for loan losses, charge-offs, recoveries, and the reserve for off-balance sheet credit commitments for the past five years:

## Allowance for Credit Losses

| Allowance for | ossesAmount Outstanding as of December 31, |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  | 2015 | 2014 |
|  | (Dollars in thousands) |  |  |  |  |  |  |  |
| Allowance for loan losses |  |  |  |  |  |  |  |  |
| Balance at beginning of year. | \$ | 123,279 | \$ | 118,966 | \$ | 138,963 | \$ 161,420 | \$ 173,889 |
| Reversal for credit losses .. |  | $(4,500)$ |  | $(2,500)$ |  | $(15,650)$ | $(11,400)$ | $(10,800)$ |
| (Reversal)/provision for reserve for off-balance sheet credit commitments. |  | - |  | - |  | - | - | (372) |
| Charge-offs : |  |  |  |  |  |  |  |  |
| Commercial loans |  | (629) |  | $(3,313)$ |  | $(12,955)$ | $(16,426)$ | $(7,875)$ |
| Construction loans-residential |  | - |  | - |  | - | - | $(2,382)$ |
| Construction loans-other |  | - |  | - |  | - |  | $(4,365)$ |
| Real estate loans. |  | $(2,577)$ |  | (860) |  | $(1,486)$ | $(3,355)$ | $(7,613)$ |
| Real estate land loans |  | - |  | - |  | $(4,462)$ | (646) |  |
| Total charge-offs. |  | $(3,206)$ |  | $(4,173)$ |  | $(18,903)$ | $(20,427)$ | $(22,235)$ |
| Recoveries: |  |  |  |  |  |  |  |  |
| Commercial loans. |  | 1,875 |  | 3,402 |  | 4,144 | 4,619 | 12,517 |
| Construction loans-residential. |  | - |  | - |  | 500 | - | 48 |
| Construction loans-other. |  | 177 |  | 229 |  | 7,417 | 202 | 2,499 |
| Real estate loans. |  | 4,766 |  | 7,336 |  | 1,542 | 4,283 | 5,752 |
| Real estate land loans. |  | - |  | - |  | 953 | 266 | 109 |
| Installment loans and other loans |  | - |  | 19 |  | - | - | 13 |
| Total recoveries. |  | 6,818 |  | 10,986 |  | 14,556 | 9,370 | 20,938 |
| Balance at end of year | \$ | $\underline{\text { 122,391 }}$ | \$ | $\underline{ }$ | \$ | $\underline{118,966}$ | \$ 138,963 | $\underline{\text { \$161,420 }}$ |
| Reserve for off-balance sheet credit commitments |  |  |  |  |  |  |  |  |
| Balance at beginning of year. | \$ | 4,588 | \$ | 3,224 | \$ | 1,494 | \$ 1,949 | \$ 1,363 |
| Provision/(Reversal) for credit losses. |  | $(2,338)$ |  | 1,364 |  | 1,730 | (455) | 586 |
| Balance at end of year................................. | \$ | 2,250 | \$ | 4,588 | \$ | 3,224 | \$ 1,494 | \$ 1,949 |
|  | 13,280,66 |  | 11,936,38 |  | 10,620,81 |  | 9,593,44 | 8,532,24 |
| Average loans outstanding during the year ${ }^{(1)}$ | \$ | 5 | \$ | 9 | \$ |  | , | \$ 5 |
| Ratio of net charge-offs to average loans outstanding during the year ${ }^{(1)}$ (Reversal)/provision for credit losses to average loans outstanding during the year ${ }^{(1)}$ |  | -0.03\% | -0.06\% |  | 0.04\% |  | 0.12\% | 0.02\% |
|  | -0.03\% |  |  | -0.02\% | -0.15\% |  | -0.12\% | -0.13\% |
| Allowance for credit losses to non-performing portfolio loans at yearend ${ }^{(2)}$. $\qquad$ | 273.41\% |  |  | 262.09\% | 245.94\% |  | 269.44\% | 232.84\% |
| Allowance for credit losses to gross loans at year-end ${ }^{(1)}$.................... |  | 0.89\% |  | 0.99\% |  | 1.09\% | 1.38\% | 1.83\% |

(1) Excluding loans held for sale
(2) Excluding non-accrual loans held for sale

Our allowance for loan losses consists of the following:

- Specific allowance: For impaired loans, we provide specific allowances for loans that are not collateral dependent based on an evaluation of the present value of the expected future cash flows discounted at the loan's effective interest rate and for loans that are collateral dependent based on the fair value of the underlying collateral determined by the most recent valuation information received, which may be adjusted based on factors such as changes in market conditions from the time of valuation. If the measure of the impaired loan is less than the recorded investment in the loan, the deficiency will be charged off against the allowance for loan losses or, alternatively, a specific allocation will be established.
- General allowance: The unclassified portfolio is segmented on a group basis. Segmentation is determined by loan types and common risk characteristics. The non-impaired loans are grouped into 19 segments: two commercial segments, ten commercial real estate segments, one residential construction segment, one non-residential construction segment, one SBA segment, one installment loans segment, one residential mortgage segment, one equity lines of credit segment, and one overdrafts segment. The allowance is provided for each segmented group based on the group's historical loan loss experience aggregated based on loan risk classifications which take into account the current financial condition of the borrowers and guarantors, the prevailing value of the underlying collateral if collateral dependent, charge-off history, management's knowledge of the portfolio, general economic conditions, environmental factors including the trends in delinquency and non-accrual, and other significant factors, such as the national and local economy, volume and composition of the portfolio, strength of management and loan staff, underwriting standards, and concentration of credit. Management also reviews reports on past-due loans to ensure appropriate classification. In the fourth quarter of 2016, management reevaluated and increased the look back period from five to eight years to capture historical loan losses from the last recession. The look back period is anchored from the first quarter of 2009 and has been extended through forty quarters through the fourth quarter of 2018. The general allowance is affected by loan volumes, quarterly net charge-offs/recoveries and historical loss rates. In addition, risk factor calculations for pass rated loans included a specified loss emergence period and were determined based on five-year average of observed net losses, unless trends would indicate that a different weighting would be appropriate. These refinements maintained the Bank's allowance at a level consistent with the prior quarter.

The table set forth below reflects management's allocation of the allowance for loan losses by loan category and the ratio of each loan category to the total loans as of the dates indicated:


The allowance allocated to commercial loans was $\$ 55.0$ million at December 31, 2018, compared to $\$ 49.8$ million at December 31, 2017. The increase is due primarily to commercial loan growth.

The allowance allocated to residential mortgage loans and equity lines was $\$ 14.3$ million at December 31, 2018, compared to $\$ 11.0$ million at December 31, 2017. The increase was due to residential loan growth and an increase in nonaccrual residential loans for 2018.

The allowance allocated to commercial mortgage loans decreased from $\$ 37.6$ million at December 31, 2017, to $\$ 33.5$ million at December 31, 2018, as a result of the net recoveries and decrease in non-accruing commercial mortgage loans in 2018.

The allowance allocated for construction loans decreased to $\$ 19.6$ million at December 31, 2018, compared to $\$ 24.8$ million at December 31, 2017, as a result of the decrease in real estate construction loan growth.

Also, see Part I - Item 1A - "Risk Factors" for additional factors that could cause actual results to differ materially from forward-looking statements or historical performance.

## Liquidity

Liquidity is our ability to maintain sufficient cash flow to meet maturing financial obligations and customer credit needs, and to take advantage of investment opportunities as they are presented in the marketplace. Our principal sources of liquidity are growth in deposits, proceeds from the maturity or sale of securities and other financial instruments, repayments from securities and loans, Federal funds purchased, securities sold under agreements to repurchase, and advances from the FHLB. For December 2018, our average monthly liquidity ratio (defined as net cash plus short-term and marketable securities to net deposits and short-term liabilities) was $12.0 \%$ compared to $12.1 \%$ for December 2017.

The Bank is a shareholder of the FHLB, which enables the Bank to have access to lower-cost FHLB financing when necessary. At December 31, 2018, the Bank had an approved credit line with the FHLB of San Francisco totaling $\$ 6.7$ billion. Total advances from the FHLB of San Francisco were $\$ 530.0$ million and standby letter of credits issued by FHLB on the Company's behalf were $\$ 280.6$ million as of December 31, 2018. These borrowings bear fixed rates and are secured by loans. See Note 9 to the Consolidated Financial Statements. At December 31, 2018, the Bank pledged $\$ 21.2$ million of its commercial loans to the Federal Reserve Bank's Discount Window under the Borrower-in-Custody program. The Bank had borrowing capacity of $\$ 22.7$ million from the Federal Reserve Bank Discount Window at December 31, 2018.

Liquidity can also be provided through the sale of liquid assets, which consist of federal funds sold, securities purchased under agreements to resell, securities available-for-sale and equity securities. At December 31, 2018, securities available-forsale totaled $\$ 1.2$ billion, with $\$ 28.5$ million pledged as collateral for borrowings and other commitments. The remaining $\$ 1.2$ billion was available as additional liquidity or to be pledged as collateral for additional borrowings.

Approximately $84 \%$ of our time deposits mature within one year or less as of December 31, 2018. Management anticipates that there may be some outflow of these deposits upon maturity due to the keen competition in the Bank's marketplace. However, based on our historical runoff experience, we expect the outflow will not be significant and anticipate that the outflow can be replenished through our normal growth in deposits. Management believes all the above-mentioned sources will provide adequate liquidity during the next twelve months for the Bank to meet its operating needs.

The business activities of the Bancorp consist primarily of the operation of the Bank and limited activities in other investments. The Bancorp obtains funding for its activities primarily through dividend income contributed by the Bank, proceeds from the issuance of the Bancorp common stock through our Dividend Reinvestment Plan and the exercise of stock options. Dividends paid to the Bancorp by the Bank are subject to regulatory limitations. Management believes the Bancorp's liquidity generated from its prevailing sources is sufficient to meet its operational needs.

Also, see Note 13 to the Consolidated Financial Statements regarding commitments and contingencies.

## Recent Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)," which requires lessees to recognize leases onbalance sheet and disclose key information about leasing arrangements. Topic 842 was subsequently amended by ASU No. 2018-01, Land Easement Practical Expedient for Transition to Topic 842; ASU No. 2018-10, Codification Improvements to Topic 842, Leases; and ASU No. 2018-11, Targeted Improvements. The new standard establishes a right-of-use model (ROU) that requires a lessee to recognize a ROU asset and lease liability on the balance sheet for all leases with a term longer than 12 months. Leases will be classified as finance or operating, with classification affecting the pattern and classification of expense recognition in the income statement.

The new standard is effective for us on January 1, 2019, with early adoption permitted. We have adopted the new standard on its effective date. A modified retrospective transition approach is required, applying the new standard to all leases existing at the date of initial application. An entity may choose to use either (1) its effective date or (2) the beginning of the earliest comparative period presented in the financial statements as its date of initial application. If an entity chooses the second option, the transition requirements for existing leases also apply to leases entered into between the date of initial application and the effective date. The entity must also recast its comparative period financial statements and provide the disclosures required under the new standard for the comparative periods. We expect to use the effective date as our date of initial application. Consequently, financial information will not be updated, and the disclosures required under the new standard will not be provided for dates and periods before January 1, 2019.

The new standard provides a number of optional practical expedients in transition. We expect to elect the 'package of practical expedients', which permits us not to reassess under the new standard our prior conclusions about lease identification, lease classification and initial direct costs. We expect to elect all of the new standard's available transition practical expedients.

We expect that this standard will not have a material effect on our financial statements. While we continue to assess all of the effects of adoption, we currently believe the most significant effects relate to (1) the recognition of new ROU assets and lease liabilities on our balance sheet for our real estate and equipment operating leases; and (2) providing significant new disclosures about our leasing activities. We do not expect a significant change in our leasing activities between now and adoption.

On adoption, we currently expect to recognize additional operating liabilities ranging from $\$ 32$ million to $\$ 37$ million, with corresponding ROU assets of the same amount based on the present value of the remaining minimum rental payments under current leasing standards for existing operating leases.

The new standard also provides practical expedients for an entity's ongoing accounting. We currently expect to elect the short-term lease recognition exemption for all leases that qualify. This means, for those leases that qualify, we will not recognize ROU assets or lease liabilities, and this includes not recognizing ROU assets or lease liabilities for existing shortterm leases of those assets in transition. We also currently expect to elect the practical expedient to not separate lease and non-lease components for all of our leases.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." This update requires an entity to use a broader range of reasonable and supportable forecasts, in addition to historical experience and current conditions, to develop an expected credit loss estimate for financial assets and net investments that are not accounted for at fair value through net income. ASU 2016-13 becomes effective for interim and annual periods beginning after December 15, 2019. The Company has designated a management team and begun its implementation efforts by identifying key interpretive issues, assessing its processes and identifying the system requirements against the new guidance to determine what modifications may be required. Management has also selected a loss forecasting modeling approach and has engaged a vendor to assist in the design and implementation of the loss forecasting modeling. The implementation efforts also involve, but are not limited to, assessing potential macroeconomic factors that will be used to determine the reasonable and supportable forecast period. The Company has not yet determined the effect of ASU 2016-13 on its accounting policies or the impact on the Company's consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, "Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment." This update simplifies how an entity is required to test goodwill for impairment by eliminating Step 2 from the goodwill impairment test. Step 2 measures a goodwill impairment loss by comparing the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. Adoption of this update is on a prospective basis and the amendments in this update are to be applied to annual periods beginning after December 15, 2019. Adoption of ASU 2017-04 is not expected to have a significant impact on the Company's consolidated financial statements.

In March 2017, the FASB issued ASU 2017-08, "Receivables- Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities." This update amends the amortization period for certain purchased callable debt securities held at a premium. The amendments require the premium to be amortized to the earliest call date. The amendments do not require an accounting change for securities held at a discount; the discount continues to be amortized to maturity. This update affects all entities that hold investments in callable debt securities that have an amortized cost basis in excess of the amount that is repayable by the issuer at the earliest call date. This update is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Adoption of ASU 2017-08 is not expected to have a significant impact on the Company's consolidated financial statements.

In July 2017, the FASB issued ASU 2017-11, "Earnings per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480) and Derivatives and Hedging (Topic 815)." There are two parts to this update. Part I of this update addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments that result in the strike price being reduced on the basis of the pricing of future equity offerings. Part II of this update addresses the difficulty in navigating topic 480, Distinguishing Liabilities from Equity, because of the existence of extensive pending content in the FASB Accounting Standards Codification. This pending content is the result of the indefinite deferral of accounting requirements about mandatorily redeemable financial instruments of certain nonpublic entities and certain mandatorily redeemable noncontrolling interests. The amendments in this update are effective for fiscal years beginning after December 15, 2020. Early adoption is permitted for all entities, including adoption in an interim period. If an entity early adopts the amendments in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. The amendments in Part I of this update should be applied in either of the following ways: (i) Retrospectively to outstanding financial instruments with a down round feature by means of a cumulative-effect adjustment to the statement of financial position as of the beginning of the first fiscal year and interim periods in which the pending content that links to this paragraph is effective; or (ii) Retrospectively to outstanding financial instruments with a down round feature for each prior reporting period presented in accordance with the guidance on accounting changes in paragraphs 250-10-45-5 through 45-10. The amendments to Part II of this update do not require any transition guidance because those amendments do not have an accounting effect. ASU 2017-11 will be effective for us on January 1, 2021 and is not expected to have a significant impact on our financial statements.

In August 2017, the FASB issued ASU 2017-12, "Derivatives and Hedging (Topic 815)," which targeted improvements to accounting for hedging activities. The amendments in this update are intended to better align an entity's risk management activities and financial reporting for hedging relationships through changes to both the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results. To meet that objective, the amendments expand and refine hedge accounting for both nonfinancial and financial risk components and align the recognition and presentation of the effects of the hedging instrument and the hedged item in the financial statements. For public business entities, the amendments in this update are effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. ASU 2017-12 will be effective for us on January 1, 2019 and is not expected to have a significant impact on our financial statements.

In August 2018, the FASB issued ASU 2018-13, "Fair Value Measurement (Topic 820): Disclosure FrameworkChanges to the Disclosure Requirements for Fair Value Measurement." This update targets improvements in the effectiveness of disclosure requirements for recurring and nonrecurring fair value measurements. The standard removes, modifies, and adds certain disclosure requirements, and is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. It is permitted to early adopt any removed or modified disclosures upon issuance of this update and delay adoption of the additional disclosures until the effective date. Adoption of ASU 2018-13 is not expected to have a significant impact on the Company's consolidated financial statements.

ASU 2018-14, "Compensation - Retirement Benefits-Defined Benefit Plans-General (Subtopic 715-20)." ASU 2018-14 amends and modifies the disclosure requirements for employers that sponsor defined benefit pension or other post-retirement plans. The amendments in this update remove disclosures that no longer are considered cost beneficial, clarify the specific requirements of disclosures, and add disclosure requirements identified as relevant. ASU 2018-14 will be effective for us on January 1, 2021, with early adoption permitted, and is not expected to have a significant impact on our financial statements.

ASU 2018-15, "Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40) - Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract." ASU 2018-15 clarifies certain aspects of ASU 2015-05, "Customer's Accounting for Fees Paid in a Cloud Computing Arrangement," which was issued in April 2015. Specifically, ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). ASU 2018-15 does not affect the accounting for the service element of a hosting arrangement that is a service contract. ASU 2018-15 will be effective for us on January 1, 2020, with early adoption permitted, and is not expected to have a significant impact on our financial statements.

ASU 2018-16, "Derivatives and Hedging (Topic 815) - Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes." The amendments in this update permit use of the OIS rate based on SOFR as a U.S. benchmark interest rate for hedge accounting purposes under Topic 815 in addition to the interest rates on direct U.S. Treasury obligations, the LIBOR swap rate, the OIS rate based on the Fed Funds Effective Rate and the Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Rate. ASU 2018-16 will be effective for us on January 1, 2019 and is not expected to have a significant impact on our financial statements.

See Note 1 to the Consolidated Financial Statements for details of recent accounting pronouncements and their expected impact, if any, on the Consolidated Financial Statements.

## Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

## Market Risk

Market risk is the risk of loss from adverse changes in market prices and rates. The principal market risk to the Company is the interest rate risk inherent in our lending, investing, deposit taking and borrowing activities, due to the fact that interestearning assets and interest-bearing liabilities do not re-price at the same rate, to the same extent, or on the same basis.

We monitor and manage our interest rate risk through analyzing the re-pricing characteristics of our loans, securities, deposits, and borrowings on an on-going basis. The primary objective is to minimize the adverse effects of changes in interest rates on our earnings, and ultimately the underlying market value of equity, while structuring our asset-liability composition to obtain the maximum spread. Management uses certain basic measurement tools in conjunction with established risk limits to regulate its interest rate exposure. Due to the limitations inherent in any individual risk management tool, we use a simulation model to measure and quantify the impact to our profitability as well as to estimate changes to the market value of our assets and liabilities.

We use a net interest income simulation model to measure the extent of the differences in the behavior of the lending, investing, and funding rates to changing interest rates, so as to project future earnings or market values under alternative interest rate scenarios. Interest rate risk arises primarily through the traditional business activities of extending loans, investing securities, accepting deposits, and borrowings. Many factors, including economic and financial conditions, movements in interest rates, and consumer preferences affect the spread between interest earned on assets and interest paid on liabilities. The net interest income simulation model is designed to measure the volatility of net interest income and net portfolio value, defined as net present value of assets and liabilities, under immediate rising or falling interest rate scenarios in 25 basis points increments.

Although the modeling is helpful in managing interest rate risk, it does require significant assumptions for the projection of loan prepayment rates on mortgage related assets, loan volumes and pricing, and deposit and borrowing volume and pricing, that might prove inaccurate. Because these assumptions are inherently uncertain, the model cannot precisely estimate net interest income, or precisely predict the effect of higher or lower interest rates on net interest income. Actual results will differ from simulated results due to the timing, magnitude, and frequency of interest rate changes, the differences between actual experience and the assumed volume, changes in market conditions, and management strategies, among other factors. The Company monitors its interest rate sensitivity and attempts to reduce the risk of a significant decrease in net interest income caused by a change in interest rates.

We establish a tolerance level in our policy for net interest income volatility of plus or minus $5 \%$ when the hypothetical rate change is plus or minus 200 basis points. When the net interest rate simulation projects that our tolerance level will be met or exceeded, we seek corrective action after considering, among other things, market conditions, customer reaction, and the estimated impact on profitability. At December 31, 2018, if interest rates were to increase instantaneously by 100 basis points, the simulation indicated that our net interest income over the next twelve months would increase by $4.27 \%$, and if interest rates were to increase instantaneously by 200 basis points, the simulation indicated that our net interest income over the next twelve months would increase by $8.59 \%$. Conversely, if interest rates were to decrease instantaneously by 100 basis points, the simulation indicated that our net interest income over the next twelve months would decrease by $7.14 \%$, and if interest rates were to decrease instantaneously by 200 basis points, the simulation indicated that our net interest income over the next twelve months would decrease by $18.57 \%$.

Our simulation model also projects the net market value of our portfolio of assets and liabilities. We have established a tolerance level to value the net market value of our portfolio of assets and liabilities in our policy to a change of not less than $0 \%$ when the hypothetical rate change is plus or minus 200 basis points. At December 31, 2018, if interest rates were to increase instantaneously by 200 basis points, the simulation indicated that the net market value of our portfolio of assets and liabilities would increase by $3.46 \%$, and conversely, if interest rates were to decrease instantaneously by 200 basis points, the simulation indicated that the net market value of our assets and liabilities would decrease by $1.33 \%$.

## Quantitative Information about Interest Rate Risk

The following table shows the carrying value of our financial instruments that are sensitive to changes in interest rates, categorized by expected maturity, as well as the instruments' total fair values at December 31, 2018, and 2017. For assets, expected maturities are based on contractual maturity. For liabilities, we use our historical experience and decay factors to estimate the deposit runoffs of interest-bearing transactional deposits. We use certain assumptions to estimate fair values and expected maturities which are described in Note 16 to the Consolidated Financial Statements. Off-balance sheet commitments to extend credit, letters of credit, and bill of lading guarantees represent the contractual unfunded amounts. Off-balance sheet financial instruments represent fair values. The results presented may vary if different assumptions are used or if actual experience differs from the assumptions used.

|  | Average <br> Interest $\qquad$ |  |  |  |  |  |  |  |  |  |  |  |  | December 31, |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2018 |  |  |  | 2017 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | Total |  | $\begin{gathered} \text { Fair } \\ \text { Value } \end{gathered}$ |  | Total |  | Fair <br> Value |  |
|  |  | 2019 |  | 2020 |  | 2021 |  | 2022 |  | 2023 |  | Thereafter |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | (Dollars in thousands) |  |  |  |  |  |  |  |  |  |  |  |
| Interest-Sensitive Assets: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other investment securities ........... | 1.91 |  | 124,751 |  | 20,120 |  | 361,483 |  | 72,563 |  | - |  | 30,968 |  | 609,885 |  | 609,885 |  | 760,141 |  | 760,141 |
| Loans held for sale ....................... | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 8,000 |  | 8,000 |
| Loans ........................................ | 5.00 |  | 3,058,092 |  | 1,006,148 |  | 614,232 |  | 711,736 |  | 869,097 |  | 7,736,483 |  | 13,995,788 |  | 13,928,162 |  | 12,870,290 |  | 12,778,857 |
| Interest Sensitive Liabilities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other interest-bearing deposits ...... | 0.53 |  | 496,098 |  | 248,710 |  | 126,766 |  | 43,179 |  | 1,647,970 |  | 1,569,100 |  | 4,131,823 |  | 4,131,823 |  | 4,515,990 |  | 4,515,990 |
| Time deposits ............................. | 1.85 |  | 5,639,064 |  | 538,309 |  | 497,601 |  | 719 |  | 37,370 |  | 11 |  | 6,713,074 |  | 6,765,512 |  | 5,390,777 |  | 5,401,970 |
| Securities sold under agreements to repurchase | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 100,000 |  | 100,163 |
| Advances from the Federal Home Loan Bank $\qquad$ | 2.47 |  | 510,000 |  | - |  | - |  | - |  | 20,000 |  | - |  | 530,000 |  | 529,500 |  | 430,000 |  | 429,482 |
| Other borrowings ........................ | 3.82 |  | 10,547 |  | 7,031 |  | - |  | - |  | - |  | 17,298 |  | 34,876 |  | 34,031 |  | 52,885 |  | 51,075 |
| Long-term debt............................ | 4.65 |  | 18,750 |  | 51,562 |  | - |  | - |  | - |  | 119,136 |  | 189,448 |  | 132,615 |  | 194,136 |  | 141,865 |
| Off-Balance Sheet Financial Instruments: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Commitments to extend credit....... |  |  | 1,095,277 |  | 814,738 |  | 150,583 |  | 119,462 |  | 146,203 |  | 365,316 |  | 2,691,579 |  | $(8,843)$ |  | 2,366,368 |  | (7,244) |
| Standby letters of credit ................ |  |  | 99,587 |  | 4,929 |  | 74,507 |  | 38,394 |  | 1,048 |  | 26,622 |  | 245,087 |  | $(2,662)$ |  | 140,814 |  | $(1,805)$ |
| Other letters of credit ................... |  |  | 35,759 |  | - |  | - |  | - |  | - |  | - |  | 35,759 |  | (30) |  | 27,353 |  | (52) |
| Bill of lading guarantees ............... |  |  | 730 |  | - |  | - |  | - |  | - |  | - |  | 730 |  | - |  | 24 |  | (0) |

## Financial Derivatives

It is our policy not to speculate on the future direction of interest rates. However, we enter into financial derivatives in order to seek mitigation of exposure to interest rate risks related to our interest-earning assets and interest-bearing liabilities. We believe that these transactions, when properly structured and managed, may provide a hedge against inherent interest rate risk in our assets or liabilities and against risk in specific transactions. In such instances, we may protect our position through the purchase or sale of interest rate futures contracts for a specific cash or interest rate risk position. Other hedging transactions may be implemented using interest rate swaps, interest rate caps, floors, financial futures, forward rate agreements, and options on futures or bonds. Prior to considering any hedging activities, we seek to analyze the costs and benefits of the hedge in comparison to other viable alternative strategies. All hedges will require an assessment of basis risk and must be approved by the Bancorp or the Bank's Investment Committee.

The Company follows ASC Topic 815 that establishes accounting and reporting standards for financial derivatives, including certain financial derivatives embedded in other contracts, and hedging activities. It requires the recognition of all financial derivatives as assets or liabilities in the Company's consolidated balance sheet and measurement of those financial derivatives at fair value. The accounting treatment of changes in fair value is dependent upon whether or not a financial derivative is designated as a hedge and, if so, the type of hedge. Fair value is determined using third-party models with observable market data. For derivatives designated as cash flow hedges, changes in fair value are recognized in other comprehensive income and are reclassified to earnings when the hedged transaction is reflected in earnings. For derivatives designated as fair value hedges, changes in the fair value of the derivatives are reflected in current earnings, together with changes in the fair value of the related hedged item if there is a highly effective correlation between changes in the fair value of the interest rate swaps and changes in the fair value of the underlying asset or liability that is intended to be hedged. If there is not a highly effective correlation between changes in the fair value of the interest rate swap and changes in the fair value of the underlying asset or liability that is intended to be hedged, then only the changes in the fair value of the interest rate swaps are reflected in the Company's consolidated financial statements.

In May 2014, the Bancorp entered into five interest rate swap contracts in the notional amount of $\$ 119.1$ million for a period of ten years. The objective of these interest rate swap contracts, which were designated as hedging instruments in cash flow hedges, was to hedge the quarterly interest payments on the Bancorp's $\$ 119.1$ million of Junior Subordinated Debentures that had been issued to five trusts, throughout the ten-year period beginning in June 2014 and ending in June 2024, from the risk of variability of these payments resulting from changes in the three-month LIBOR interest rate. The Bancorp pays a weighted average fixed interest rate of $2.61 \%$ and receives a variable interest rate of the three-month LIBOR at a weighted average rate of $2.78 \%$. As of December 31, 2018, the notional amount of cash flow interest rate swaps was $\$ 119.1$ million and their unrealized loss of $\$ 241,000$, net of taxes, was included in other comprehensive income compared to unrealized loss of $\$ 1.5$ million at December 31, 2017. For the year ended December 31, 2018, the periodic net settlement of interest rate swaps included in interest expense was $\$ 539,000$ compared to $\$ 1.7$ million in 2017. As of December 31, 2018, and 2017, the ineffective portion of these interest rates swaps was not significant.

As of December 31, 2018, the Bank's outstanding interest rate swap contracts had a notional amount of \$613.4 million for various terms from two to ten years. The Bank entered into these interest rate swap contracts that are matched to individual fixed-rate commercial real estate loans in the Bank's loan portfolio. These contracts have been designated as hedging instruments to hedge the risk of changes in the fair value of the underlying commercial real estate loans due to changes in interest rates. The swap contracts are structured so that the notional amounts reduce over time to match the contractual amortization of the underlying loan and allow prepayments with the same pre-payment penalty amounts as the related loan. The Bank pays a weighted average fixed rate of $4.72 \%$ and receives a variable rate at the one month LIBOR rate plus a weighted average spread of 265 basis points, or at a weighted average rate of $5.07 \%$. As of December 31, 2018, and 2017, the notional amount of fair value interest rate swaps was $\$ 613.4$ million and $\$ 540.4$ million with unrealized gains of $\$ 6.6$ million and $\$ 5.0$ million, respectively, were included in other non-interest income. The amount of periodic net settlement of interest rate swaps increased interest income by $\$ 256,000$ in 2018 compared to a decrease in interest income of $\$ 2.4$ million in 2017. As of December 31, 2018, and 2017, the ineffective portion of these interest rate swaps was not significant.

Interest rate swap contracts involve the risk of dealing with institutional derivative counterparties and their ability to meet contractual terms. Institutional counterparties must have a strong credit profile and be approved by the Company's Board of Directors. The Company's credit exposure on interest rate swaps is limited to the net favorable value and interest payments of all swaps by each counterparty. Credit exposure may be reduced by the amount of collateral pledged by the counterparty. The Bancorp's interest rate swaps have been assigned by the counterparties to a derivatives clearing organization and daily margin is indirectly maintained with the derivatives clearing organization. Cash posted as collateral by the Bancorp related to derivative contracts totaled $\$ 1.8$ million as of December 31,2018 and $\$ 4.5$ million as of December 31, 2017.

The Company enters into foreign exchange forward contracts with various counterparties to mitigate the risk of fluctuations in foreign currency exchange rates for foreign exchange certificates of deposit or foreign exchange contracts entered into with our clients. These contracts are not designated as hedging instruments and are recorded at fair value in our Consolidated Balance Sheet. Changes in the fair value of these contracts as well as the related foreign exchange certificates of deposit and foreign exchange contracts are recognized immediately in net income as a component of non-interest income. Period end gross positive fair values are recorded in other assets and gross negative fair values are recorded in other liabilities. At December 31, 2018, the notional amount of option contracts totaled $\$ 1.2$ million with a net negative fair value of $\$ 6,000$. At December 31, 2018, spot, forward, and swap contracts in the total notional amount of $\$ 86.9$ million had a positive fair value of $\$ 397,000$. Spot, forward, and swap contracts in the total notional amount of $\$ 95.0$ million had a negative fair value of $\$ 1.8$ million at December 31, 2018. At December 31, 2017, the notional amount of option contracts totaled $\$ 1.0$ million with a net negative fair value of $\$ 9,000$. At December 31,2017 , spot, forward, and swap contracts in the total notional amount of $\$ 108.5$ million had a positive fair value of $\$ 1.8$ million. Spot, forward, and swap contracts in the total notional amount of $\$ 32.1$ million had a negative fair value of $\$ 453,000$ at December 31, 2017.

## Item 8. Financial Statements and Supplementary Data.

For financial statements, see "Index to Consolidated Financial Statements" on page F-1.

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

Not Applicable.

## Item 9A. Controls and Procedures.

## Disclosure Controls and Procedures

The Company's principal executive officer and principal financial officer have evaluated the effectiveness of the Company's "disclosure controls and procedures," as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended, (the "Exchange Act") as of the end of the period covered by this Annual Report on Form 10-K. Based upon their evaluation, the principal executive officer and principal financial officer have concluded that the Company's disclosure controls and procedures are effective to ensure that information required to be disclosed by the Company in the reports filed or submitted by it under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and include controls and procedures designed to ensure that information required to be disclosed by the Company in such reports is accumulated and communicated to the Company's management, including its principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

There have not been any changes in the Company's disclosure controls and procedures that occurred during its fourth fiscal quarter of 2018 that have materially affected, or are reasonably likely to materially affect, these controls and procedures.

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

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

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.

As of December 31, 2018, under the supervision and with the participation of the Company's management, including the Company's principal executive officer and principal financial officer, the Company assessed the effectiveness of its internal control over financial reporting based on the criteria for effective internal control over financial reporting established in "Internal Control - Integrated Framework (2013)," issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management determined that the Company maintained effective internal control over financial reporting as of December 31, 2018.

KPMG LLP, the independent registered public accounting firm that audited the Company's Consolidated Financial Statements included in this Annual Report on Form 10-K, has also issued an audit report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2018. The report, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2018, is included in this Item under the heading "Report of Independent Registered Public Accounting Firm" below.

## Changes in Internal Control over Financial Reporting

There have been no changes in the Company's internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act, that occurred during the fourth fiscal quarter of 2018 that have materially affected, or are reasonably likely to materially effect, the Company's internal control over financial reporting.

## Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Cathay General Bancorp:

## Opinion on Internal Control Over Financial Reporting

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, the related consolidated statements of operations and comprehensive income, changes in stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively, the consolidated financial statements), and our report dated March 4, 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.

[^1]Item 9B. Other Information.

None.

## PART III

## Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this item concerning our executive officers, directors, compliance with Section 16 of the Securities Exchange Act of 1934, the code of ethics that applies to our principal executive officer, principal financial officer and principal accounting officer, and matters relating to corporate governance is incorporated herein by reference from the information set forth under the captions "Proposal One-Election of Directors," "Section 16(a) Beneficial Ownership Reporting Compliance," "Board of Directors and Corporate Governance" and "Code of Ethics" in our Definitive Proxy Statement relating to our 2019 Annual Meeting of Stockholders (our "Proxy Statement").

## Item 11. Executive Compensation.

The information required by this item is incorporated herein by reference from the information set forth under the captions "Board of Directors and Corporate Governance-Compensation of Directors," "Executive Compensation," and "Potential Payments Upon Termination or Change in Control" in our Proxy Statement.

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

## Securities Authorized for Issuance under Equity Compensation Plans

The following table sets forth certain information as of December 31, 2018, with respect to compensation plans under which equity securities of the Company were authorized for issuance.

| Plan Category | Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants, and Rights (a) | Weightedaverage Exercise Price of Outstanding Options, Warrants, and Rights (b) | Number of Securities <br> Remaining Available <br> For Future Issuance Under Equity Compensation Plans [Excluding Securities Reflected in Column (a)] (c) |
| :---: | :---: | :---: | :---: |
| Equity Compensation Plans Approved by Security Holders. |  | \$ | 2,621,737 |
| Equity Compensation Plans Not Approved by Security Holders ............. |  |  | - |
| Total ............................................................................................ |  | \$ - | 2,621,737 |

The information required by this item is incorporated herein by reference from the information set forth under the captions "Security Ownership of Certain Beneficial Owners" and "Proposal One-Election of Directors- Security Ownership of Nominees, Continuing Directors, and Named Executive Officers" in our Proxy Statement.

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

The information required by this item is incorporated herein by reference to the information set forth under the captions "Transactions with Related Persons, Promoters and Certain Control Persons" and "Board of Directors and Corporate Governance- Director Independence" in our Proxy Statement.

## Item 14. Principal Accounting Fees and Services.

The information required by this item is incorporated herein by reference from the information set forth under the caption "Principal Accounting Fees and Services" in our Proxy Statement.

## PART IV

## Item 15. Exhibits, Financial Statement Schedules.

Documents Filed as Part of this Report

## (a)(1) Financial Statements

See "Index to Consolidated Financial Statements" on page F-1.
(a)(2) Financial Statement Schedules

Schedules have been omitted since they are not applicable, they are not required, or the information required to be set forth in the schedules is included in the Consolidated Financial Statements or Notes thereto.
(b) Exhibits
3.1 Restated Certificate of Incorporation. Previously filed with the Securities and Exchange Commission on February 29, 2016, as an exhibit to Bancorp's Annual Report on Form 10-K for the year ended December 31, 2015 and incorporated herein by reference.
3.1.1 Amendment to Restated Certificate of Incorporation. Previously filed with the Securities and Exchange Commission on February 29, 2016, as an exhibit to Bancorp's Annual Report on Form 10-K for the year ended December 31, 2015 and incorporated herein by reference.
3.2 Amended and Restated Bylaws, effective February 16, 2017. Previously filed with the Securities and Exchange Commission on February 17, 2017 as an exhibit to the Bancorp's Current Report on Form 8-K and incorporated herein by reference.
3.3 Certificate of Designation of Series A Junior Participating Preferred Stock. Previously filed with the Securities and Exchange Commission on February 28, 2012, as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2011 and incorporated herein by reference.
3.4 Certificate of Designation of Fixed Rate Cumulative Perpetual Preferred Stock, Series B. Previously filed with the Securities and Exchange Commission on March 3, 2014 as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2013 and incorporated herein by reference.
4.1 Indenture, dated as of March 30, 2007, between Cathay General Bancorp and LaSalle Bank National Association (including form of debenture). Previously filed with the Securities and Exchange Commission on March 1, 2013, as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2012 and incorporated herein by reference.
4.1.1 Amended and Restated Declaration of Trust of Cathay Capital Trust III, dated as of March 30, 2007. Previously filed with the Securities and Exchange Commission on March 1, 2013, as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2012 and incorporated herein by reference.
4.1.2 Guarantee Agreement, dated as of March 30, 2007, between Cathay General Bancorp and LaSalle Bank National Association. Previously filed with the Securities and Exchange Commission on March 1, 2013, as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2012 and incorporated herein by reference.
4.1.3 Form of Capital Securities of Cathay Capital Trust III (included within Exhibit 4.1.1).
4.2 Warrant to purchase up to $1,846,374$ shares of Common Stock, issued on December 5, 2008. Previously filed with the Securities and Exchange Commission on March 3, 2014 as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2013 and incorporated herein by reference.
4.2.1 Warrant Agreement, dated as of December 4, 2013. Previously filed with the Securities and Exchange Commission on December 4, 2013, as an exhibit to the Bancorp's Registration Statement on Form 8-A and incorporated herein by reference.
4.2.2 Form of Warrant (included within Exhibit 4.2.1).
10.1 Form of Indemnity Agreements between the Bancorp and its directors and certain officers. Previously filed with the Securities and Exchange Commission on February 28, 2012, as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2011 and incorporated herein by reference.
10.2 Cathay Bank Employee Stock Ownership Plan, as amended and restated effective December 22, 2015. Previously filed with the Securities and Exchange Commission on March 1, 2018, as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2017, and incorporated herein by reference.**
10.2.1 Amendment No. 1 to the Cathay Bank Employee Stock Ownership Plan, as amended and restated effective December 22, 2015. Previously filed with the Securities and Exchange Commission on March 1, 2018, as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2017, and incorporated herein by reference.**
10.2.2 Amendment No. 2 to the Cathay Bank Employee Stock Ownership Plan, as amended and restated effective December 22, 2015. Previously filed with the Securities and Exchange Commission on March 1, 2018, as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2017, and incorporated herein by reference.**
10.2.3 Amendment No. 3 to the Cathay Bank Employee Stock Ownership Plan, as amended and restated effective December 22, 2015. Previously filed with the Securities and Exchange Commission on August 9, 2018, as an exhibit to the Bancorp's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, and incorporated herein by reference.**
10.3 Dividend Reinvestment Plan and Stock Purchase Plan (Amended and Restated) of the Bancorp. Previously filed with the Securities and Exchange Commission on July 27, 2015, as an exhibit to Registration Statement No. 333-205888, and incorporated herein by reference.
10.4 Cathay Bank Bonus Deferral Agreement (Amended and Restated). Previously filed with the Securities and Exchange Commission on March 1, 2013, as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2012 and incorporated herein by reference.**
10.5 Cathay General Bancorp 2005 Incentive Plan. Previously filed with the Securities and Exchange Commission on March 1, 2013, as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2012 and incorporated herein by reference.**
10.5.1 Form of Cathay General Bancorp 2005 Incentive Plan Stock Option Agreement (Nonstatutory). Previously filed with the Securities and Exchange Commission on March 1, 2013, as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2012 and incorporated herein by reference.**
10.5.2 Form of Cathay General Bancorp 2005 Incentive Plan Stock Option Agreement (Nonstatutory) (Nonemployee Director). Previously filed with the Securities and Exchange Commission on March 1, 2013, as an exhibit to Bancorp's Annual Report on Form 10-K for the year ended December 31, 2012 and incorporated herein by reference.**
10.5.3 Form of Cathay General Bancorp 2005 Incentive Plan Restricted Stock Unit Agreement (Performance Shares EPS), used to award performance-based restricted stock units. Previously filed with the Securities and Exchange Commission on December 24, 2013, as an exhibit to the Bancorp's Current Report on Form 8-K and incorporated herein by reference.**
10.5.4 Form of Cathay General Bancorp 2005 Incentive Plan Restricted Stock Unit Agreement (Performance Shares TSR), used to award performance-based restricted stock units. Previously filed with the Securities and Exchange Commission on December 24, 2013, as an exhibit to the Bancorp's Current Report on Form 8-K and incorporated herein by reference.**
10.5.5 Form of Cathay General Bancorp 2005 Incentive Restricted Stock Unit Agreement (Clawback Rider), used in connection with award of performance-based restricted stock units. Previously filed with the Securities and Exchange Commission on December 24, 2013, as an exhibit to the Bancorp's Current Report on Form 8-K, and incorporated herein by reference.**
10.5.6 Executive Officer Annual Cash Bonus Program under the Company's 2005 Incentive Plan. Previously filed with the Securities and Exchange Commission on March 28, 2014 as an exhibit to the Bancorp's Current Report on Form 8-K/A and incorporated herein by reference.**
10.5.7 Cathay General Bancorp 2005 Incentive Plan (As Amended and Restated). Previously filed with the Securities and Exchange Commission on February 29, 2016 as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31,2015 and incorporated herein by reference.**
10.5.8 Form of Cathay General Bancorp 2005 Incentive Plan (As Amended and Restated) Restricted Stock Unit Agreement (Performance Shares - EPS), used to award performance-based restricted stock units. Previously filed with the Securities and Exchange Commission on December 21, 2016, as an exhibit to the Bancorp's Current Report on Form 8-K and incorporated herein by reference.**
10.5.9 Form of Cathay General Bancorp 2005 Incentive Plan (As Amended and Restated) Restricted Stock Unit Agreement (Performance Shares - TSR), used to award performance-based restricted stock units. Previously filed with the Securities and Exchange Commission on December 21, 2016, as an exhibit to the Bancorp's Current Report on Form 8-K and incorporated herein by reference.**
10.5.10 Form of Cathay General Bancorp 2005 Incentive Plan (As Amended and Restated) Restricted Stock Unit Agreement (Performance Shares - ROA), used to award performance-based restricted stock units. Previously filed with the Securities and Exchange Commission on December 21, 2016, as an exhibit to the Bancorp's Current Report on Form 8-K and incorporated herein by reference.**
10.5.11 Form of Cathay General Bancorp 2005 Incentive Plan (As Amended and Restated) Restricted Stock Unit Agreement (Clawback Rider), used in connection with award of performance-based restricted stock units. Previously filed with the Securities and Exchange Commission on December 21, 2016, as an exhibit to the Bancorp's Current Report on Form 8-K and incorporated herein by reference.**
10.5.12 Form of Cathay General Bancorp 2005 Incentive Plan (As Amended and Restated) Restricted Stock Unit Agreement (Time-Based Shares). Previously filed with the Securities and Exchange Commission on March 30, 2017, as an exhibit to the Bancorp's Current Report on Form 8-K, and incorporated herein by reference.**
10.5.13 Form of Cathay General Bancorp 2005 Incentive Plan (As Amended and Restated) Restricted Stock Unit Agreement (Clawback Rider), used in connection with award of time-based restricted stock units. Previously filed with the Securities and Exchange Commission on March 30, 2017, as an exhibit to the Bancorp's Current Report on Form 8-K and incorporated herein by reference.**
10.5.14 Form of Cathay General Bancorp 2005 Incentive Plan (As Amended and Restated) Restricted Stock Unit Agreement (Immediate Vesting/Deferred Distribution). Previously filed with the Securities and Exchange Commission on May 10, 2018, as an exhibit to the Bancorp's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, and incorporated herein by reference.**
10.6 Amended and Restated Change of Control Employment Agreement for Dunson K. Cheng dated as of December 18, 2008. Previously filed with the Securities and Exchange Commission on March 3, 2014 as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2013 and incorporated herein by reference.**
10.6.1 Amended and Restated Change of Control Employment Agreement for Heng W. Chen dated as of December 18, 2008. Previously filed with the Securities and Exchange Commission on March 3, 2014 as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2013 and incorporated herein by reference.**
10.6.2 Amended and Restated Change of Control Employment Agreement for Irwin Wong dated as of December 18, 2008. Previously filed with the Securities and Exchange Commission on March 3, 2014 as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2013 and incorporated herein by reference.**
10.6.3 Amended and Restated Change of Control Employment Agreement for Kim R. Bingham dated as of December 18, 2008. Previously filed with the Securities and Exchange Commission on March 3, 2014 as an exhibit to the Bancorp's Annual Report on Form 10-K for the year ended December 31, 2013 and incorporated herein by reference.**
10.6.4 Amended and Restated Change of Control Employment Agreement for Pin Tai dated as of December 18, 2008. Previously filed with the Securities and Exchange Commission on November 7, 2014 as an exhibit to the Bancorp's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014 and incorporated herein by reference**
10.6.4.1 First Amendment to Amended and Restated Change of Control Employment Agreement for Pin Tai, dated as of May 3, 2017 Previously filed with the Securities and Exchange Commission on May 4, 2017 as an exhibit to the Bancorp's Current Report on Form 8-K and incorporated herein by reference. **
10.7 Employment Agreement for Pin Tai dated as of August 18, 2016. Previously filed with the Securities and Exchange Commission on August 19, 2016 as an exhibit to the Bancorp's Current Report on Form 8-K and incorporated herein by reference. **
21.1 Subsidiaries of the Bancorp.+
23.1 Consent of Independent Registered Public Accounting Firm.+
31.1 Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.+
31.2 Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.+
32.1 Certification of the Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.++
101.INS XBRL Instance Document ${ }^{* * *}$
101.SCH XBRL Taxonomy Extension Schema Document ***
101.CAL XBRL Taxonomy Extension Calculation Linkbase Document***
101.DEF XBRL Taxonomy Extension Definition Linkbase Document***
101.LAB $\quad$ XBRL Taxonomy Extension Label Linkbase Document***
101.PRE $\quad$ XBRL Taxonomy Extension Presentation Linkbase Document***
** Management contract or compensatory plan or arrangement.
*** XBRL (Extensible Business Reporting Language) information shall not be deemed to be filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, shall not be deemed to be filed for purposes of section 18 of the Securities Exchange Act of 1934, and otherwise shall not be subject to liability under these sections, and shall not be incorporated by reference into any registration statement or other document filed under the Securities Act of 1933, except as expressly set forth by specific reference in such filing.
$+\quad$ Filed herewith.
++ Furnished herewith.

## SIGNATURES

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

## Cathay General Bancorp

By: $\frac{\text { Pin Tai }}{\text { Chief Executive Officer and President }}$

Date: March 4, 2019

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.

| Signature | Title | Date |
| :---: | :---: | :---: |
| /s/ Pin Tai | Chief Executive Officer and | March 4, 2019 |
| Pin Tai | President (principal executive officer) |  |
| /s/ Heng W. Chen | Executive Vice President, | March 4, 2019 |
| Heng W. Chen | Chief Financial Officer/Treasurer (principal financial officer) (principal accounting officer) |  |
| /s/ Dunson K. Cheng | Executive Chairman of the Board | March 4, 2019 |
| Dunson K. Cheng |  |  |
| /s/ Peter Wu | Vice Chairman of the Board | March 4, 2019 |
| Peter Wu |  |  |
| /s/ Anthony M. Tang | Vice Chairman of the Board | March 4, 2019 |
| Anthony M. Tang |  |  |
| /s/ Kelly L. Chan | Director | March 4, 2019 |
| Kelly L. Chan |  |  |
| /s/ Michael M.Y. Chang | Director | March 4, 2019 |
| Michael M.Y. Chang |  |  |
| /s/ Nelson Chung | Director | March 4, 2019 |
| Nelson Chung |  |  |


| /s/ Jane Jelenko |
| :---: |
| Jane Jelenko |
| /s/ Ting Liu |
| Ting Liu |
| /s/ Joseph C.H. Poon |
| Joseph C.H. Poon |
| /s/ Richard Sun |
| Richard Sun |

Richard Sun

Director

Director
March 4, 2019

Director
March 4, 2019
March 4, 2019

Director
March 4, 2019

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Consolidated Statements of Changes in Stockholders' Equity for each of the years ended December 31, 2018, 2017, and 2016 ..... F-5
Consolidated Statements of Cash Flows for each of the years ended December 31, 2018, 2017, and 2016 ..... F-6
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Parent-only condensed financial information of Cathay General Bancorp is included in Note 20 to the Consolidated Financial Statements in this Annual Report on Form 10-K ..... F-55

## Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Cathay General Bancorp:

## Opinion on the Consolidated Financial Statements

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 4, 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 1991.
Los Angeles, California
March 4, 2019

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## CONSOLIDATED BALANCE SHEETS

|  | As of December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
|  | (In thousands, except share and per share data) |  |  |  |
| Assets |  |  |  |  |
| Cash and due from banks . | \$ | 225,333 | \$ | 247,056 |
| Short-term investments and interest bearing deposits |  | 374,957 |  | 292,745 |
| Securities available-for-sale (amortized cost of \$1,267,731 in 2018 and \$1,336,345 in 2017)........ |  | 1,242,509 |  | 1,333,626 |
| Loans held for sale. |  |  |  | 8,000 |
| Loans. |  | 13,995,788 |  | 12,870,290 |
| Less: Allowance for loan losses |  | $(122,391)$ |  | $(123,279)$ |
| Unamortized deferred loan fees, net |  | $(1,565)$ |  | $(3,245)$ |
| Loans, net. |  | 13,871,832 |  | 12,743,766 |
| Equity securities.. |  | 25,098 |  | - |
| Federal Home Loan Bank stock |  | 17,250 |  | 23,085 |
| Other real estate owned, net. |  | 12,674 |  | 9,442 |
| Affordable housing investments and alternative energy partnerships, net |  | 282,734 |  | 272,871 |
| Premises and equipment, net. |  | 103,189 |  | 103,064 |
| Customers' liability on acceptances |  | 22,709 |  | 13,482 |
| Accrued interest receivable |  | 51,650 |  | 45,307 |
| Goodwill . |  | 372,189 |  | 372,189 |
| Other intangible assets, net. |  | 7,194 |  | 8,062 |
| Other assets .. |  | 175,419 |  | 167,491 |
| Total assets. | \$ | 16,784,737 | \$ | 15,640,186 |
| Liabilities and Stockholders' Equity |  |  |  |  |
| Deposits |  |  |  |  |
| Non-interest-bearing demand deposits. | \$ | 2,857,443 | \$ | 2,783,127 |
| Interest-bearing deposits: |  |  |  |  |
| NOW deposits. |  | 1,365,763 |  | 1,410,519 |
| Money market deposits |  | 2,027,404 |  | 2,248,271 |
| Savings deposits. |  | 738,656 |  | 857,199 |
| Time deposits. |  | 6,713,074 |  | 5,390,777 |
| Total deposits |  | 13,702,340 |  | 12,689,893 |
| Securities sold under agreements to repurchase |  | - |  | 100,000 |
| Advances from the Federal Home Loan Bank |  | 530,000 |  | 430,000 |
| Other borrowings for affordable housing investments |  | 17,298 |  | 17,481 |
| Long-term debt.. |  | 189,448 |  | 194,136 |
| Deferred payments from acquisition. |  | 18,458 |  | 35,404 |
| Acceptances outstanding. |  | 22,709 |  | 13,482 |
| Other liabilities.. |  | 182,618 |  | 186,486 |
| Total liabilities |  | 14,662,871 |  | 13,666,882 |
| Commitments and contingencies.. |  | - |  | - |
| Stockholders' Equity |  |  |  |  |
| Common stock, $\$ 0.01$ par value, $100,000,000$ shares authorized, $89,826,317$ issued and $80,501,948$ outstanding at December 31, 2018, and $89,104,022$ issued and $80,893,379$ outstanding at December 31, 2017 $\qquad$ |  |  |  |  |
| Additional paid-in-capital |  | 942,062 |  | 932,874 |
| Accumulated other comprehensive loss, net |  | $(18,006)$ |  | $(2,511)$ |
| Retained earnings.. |  | 1,479,149 |  | 1,281,639 |
| Treasury stock, at cost ( $9,324,369$ shares at December 31, 2018, and $8,210,643$ shares at December 31, 2017) |  | $(282,237)$ |  | $(239,589)$ |
| Total equity ... |  | 2,121,866 |  | 1,973,304 |
| Total liabilities and equity........................................................................................ | \$ | 16,784,737 | \$ | $\underline{\text { 15,640,186 }}$ |

See accompanying notes to Consolidated Financial Statements.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  |
|  | (In thousands, except share and per share data) |  |  |  |  |  |
| INTEREST AND DIVIDEND INCOME |  |  |  |  |  |  |
| Loan receivable. | \$ | 652,480 | \$ | 549,291 | \$ | 473,782 |
| Investment securities. |  | 28,603 |  | 20,531 |  | 21,426 |
| Federal Home Loan Bank stock |  | 1,663 |  | 1,798 |  | 2,099 |
| Federal funds sold and securities purchased under agreement to resell. |  | - |  | 110 |  | - |
| Deposits with banks |  | 5,209 |  | 4,421 |  | 1,763 |
| Total interest and dividend income. |  | 687,955 |  | 576,151 |  | 499,070 |
| INTEREST EXPENSE |  |  |  |  |  |  |
| Time deposits |  | 86,368 |  | 46,768 |  | 43,327 |
| Other deposits |  | 20,503 |  | 19,076 |  | 16,094 |
| Interest on securities sold under agreements to repurchase |  | 1,446 |  | 4,250 |  | 15,329 |
| Advances from the Federal Home Loan Bank |  | 3,739 |  | 2,712 |  | 659 |
| Long-term debt. |  | 8,723 |  | 5,775 |  | 5,791 |
| Deferred payments from acquisition |  | 1,090 |  | 1,861 |  | - |
| Short-term borrowings. |  | 187 |  | - |  | - |
| Total interest expense |  | 122,056 |  | 80,442 |  | 81,200 |
| Net interest income before reversal for credit losses. |  | 565,899 |  | 495,709 |  | 417,870 |
| Reversal for credit losses |  | $(4,500)$ |  | $(2,500)$ |  | $(15,650)$ |
| Net interest income after reversal for credit losses |  | 570,399 |  | 498,209 |  | 433,520 |
| NON-INTEREST INCOME |  |  |  |  |  |  |
| Net (losses)/gains from equity securities, |  | $(2,787)$ |  | - |  | - |
| Securities gains, net |  | 22 |  | 1,006 |  | 4,898 |
| Letters of credit commissions |  | 5,614 |  | 4,860 |  | 4,939 |
| Depository service fees. |  | 5,084 |  | 5,624 |  | 5,478 |
| Gain from acquisition |  | 340 |  | 5,628 |  | - |
| Other operating income |  | 23,434 |  | 19,179 |  | 18,055 |
| Total non-interest income |  | 31,707 |  | 36,297 |  | 33,370 |
| NON-INTEREST EXPENSE |  |  |  |  |  |  |
| Salaries and employee benefits. |  | 124,477 |  | 109,458 |  | 97,348 |
| Occupancy expense. |  | 20,690 |  | 20,429 |  | 18,315 |
| Computer and equipment expense |  | 11,402 |  | 10,846 |  | 9,777 |
| Professional services expense. |  | 22,810 |  | 20,439 |  | 18,686 |
| Data processing service expense |  | 12,438 |  | 11,190 |  | 8,957 |
| FDIC and State assessments |  | 8,000 |  | 10,633 |  | 9,712 |
| Marketing expense. |  | 7,837 |  | 6,200 |  | 5,092 |
| Other real estate owned (income)/loss. |  | (719) |  | $(1,649)$ |  | 856 |
| Operations of investments in affordable housing and alternative energy partnerships, net .......... |  | 40,515 |  | 27,212 |  | 40,264 |
| Amortization of core deposit premium |  | 876 |  | 930 |  | 689 |
| Acquisition and integration costs. |  | 2,105 |  | 4,121 |  | - |
| Other operating expense |  | 13,988 |  | 16,390 |  | 14,994 |
| Total non-interest expense |  | 264,419 |  | 236,199 |  | 224,690 |
| Income before income tax expense ........................................................................................ |  | 337,687 |  | 298,307 |  | 242,200 |
| Income tax expense |  | 65,802 |  | 122,265 |  | 67,101 |
| Net income attributable to common stockholders. | \$ | 271,885 | \$ | 176,042 | \$ | 175,099 |
| Other comprehensive income/(loss), net of tax: |  |  |  |  |  |  |
| Unrealized holding (losses)/gains on securities available for sale. |  | $(7,934)$ |  | 1,068 |  | 6,725 |
| Unrealized holding gains on cash flow hedge derivatives |  | 1,525 |  | 719 |  | 825 |
| Less: reclassification adjustment for gains included in net income .......................................... |  | 15 |  | 583 |  | 2,839 |
| Total other comprehensive (loss)/income, net of tax |  | $(6,424)$ |  | 1,204 |  | 4,711 |
| Total comprehensive income | \$ | 265,461 | \$ | 177,246 | \$ | 179,810 |
| Net income attributable to common stockholders per common share |  |  |  |  |  |  |
| Basic ............................................................................................................................... | \$ | 3.35 | \$ | 2.19 | \$ | 2.21 |
| Diluted. | \$ | 3.33 | \$ | 2.17 | \$ | 2.19 |
| Basic average common shares outstanding.............................................................................. |  | ,131,269 |  | 80,262,782 |  | 79,153,762 |
| Diluted average common shares outstanding........ |  | ,607,346 |  | 81,004,550 |  | 79,929,262 |

See accompanying notes to Consolidated Financial Statements.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

## Years Ended December 31, 2018, 2017, and 2016 <br> (In thousands, except number of shares)



See accompanying notes to Consolidated Financial Statements.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  |
|  | (In thousands) |  |  |  |  |  |
| Cash Flows from Operating Activities |  |  |  |  |  |  |
| Net income. | \$ | 271,885 | \$ | 176,042 | \$ | 175,099 |
| Adjustments to reconcile net income to net cash provided by operating activities: |  |  |  |  |  |  |
| Reversal for credit losses. |  | $(4,500)$ |  | $(2,500)$ |  | $(15,650)$ |
| Provision for losses on other real estate owned |  | - |  | 691 |  | 176 |
| Deferred tax provision |  | 2,343 |  | 34,554 |  | 15,949 |
| Depreciation and amortization |  | 7,314 |  | 7,265 |  | 7,490 |
| Net gains on sale and transfers of other real estate owned |  | $(1,187)$ |  | $(2,661)$ |  | (546) |
| Net gains on sale of loans |  | - |  | - |  | (285) |
| Proceeds from sale of loans |  | 8,000 |  | 7,500 |  | 20,079 |
| Originations of loans held for sale |  | - |  | - |  | $(12,665)$ |
| Loss on sales or disposal of fixed assets |  | 107 |  | - |  | - |
| Amortization of alternative energy partnerships, venture capital and other investments |  | 40,871 |  | 4,572 |  | 28,897 |
| Write-down on impaired securities. |  | - |  | - |  | 206 |
| Gain on sales and calls of securities. |  | (22) |  | $(1,006)$ |  | $(5,104)$ |
| Other non-cash interest income |  | $(1,576)$ |  | $(1,740)$ |  | $(1,272)$ |
| Amortization of security premiums, net |  | 3,018 |  | 2,945 |  | 6,371 |
| Unrealized loss on equity securities |  | 2,787 |  | - |  | - |
| Stock based and stock issued to officers and directors compensation expense |  | 7,974 |  | 5,734 |  | 4,963 |
| Net change in accrued interest receivable and other assets |  | $(13,984)$ |  | 25,747 |  | 13,478 |
| Gain from acquisition. |  | (340) |  | $(5,628)$ |  | - |
| Net change in other liabilities |  | 13,848 |  | $(2,641)$ |  | $(2,784)$ |
| Net cash provided by operating activities |  | 336,538 |  | 248,874 |  | 234,402 |
| Cash Flows from Investing Activities |  |  |  |  |  |  |
| Decrease in interest bearing deposits |  | 5,000 |  | - |  | - |
| Purchase of investment securities available-for-sale. |  | $(497,787)$ |  | $(339,814)$ |  | $(941,327)$ |
| Proceeds from maturity and call of investment securities available-for-sale |  | 341,900 |  | 490,950 |  | 460,000 |
| Proceeds from sale of investment securities available-for-sale |  | 99,899 |  | 111,704 |  | 294 |
| Purchase of mortgage-backed securities available-for-sale. |  | - |  | $(267,760)$ |  | - |
| Proceeds from repayment and sale of mortgage-backed securities available-for-sale. |  | 105,873 |  | 71,645 |  | 758,271 |
| Purchase of Federal Home Loan Bank stock |  | $(5,430)$ |  | $(8,160)$ |  | $(1,650)$ |
| Redemption of Federal Home Loan Bank stock |  | 11,265 |  | 13,482 |  | 1,650 |
| Redemption of Federal Reserve Bank stock |  | - |  | 8,733 |  | - |
| Net increase in loans. |  | $(1,125,623)$ |  | $(963,858)$ |  | $(1,051,952)$ |
| Purchase of premises and equipment |  | $(6,670)$ |  | $(3,188)$ |  | $(3,523)$ |
| Proceeds from sales of premises and equipment |  | - |  | 5,598 |  | 12 |
| Proceeds from sales of other real estate owned. |  | 3,820 |  | 18,357 |  | 7,699 |
| Increase in investment in affordable housing and alternative energy partnerships |  | $(66,574)$ |  | $(40,284)$ |  | $(82,966)$ |
| Acquisitions, net of cash acquired |  | - |  | $(1,392)$ |  |  |
| Net cash used in investing activities |  | (1,134,327) |  | $(903,987)$ |  | $(853,492)$ |
| Cash Flows from Financing Activities |  |  |  |  |  |  |
| Net increase in deposits |  | 1,012,284 |  | 201,224 |  | 1,166,044 |
| Net decrease in federal funds purchased and securities sold under agreements to repurchase. |  | $(100,000)$ |  | $(250,000)$ |  | $(50,000)$ |
| Advances from Federal Home Loan Bank |  | 5,130,000 |  | 4,823,000 |  | 3,555,000 |
| Repayment of Federal Home Loan Bank borrowings |  | $(5,030,000)$ |  | $(4,773,000)$ |  | $(3,480,000)$ |
| Cash dividends.. |  | $(83,428)$ |  | $(69,888)$ |  | $(59,274)$ |
| Purchase of treasury stock |  | $(42,648)$ |  | - |  | $(54,441)$ |
| Proceeds from issuance of long-term debt and other borrowings |  | - |  | 75,000 |  | - |
| Repayment of long-term debt and other borrowings.. |  | $(23,040)$ |  | - |  | - |
| Proceeds from shares issued to Dividend Reinvestment Plan |  | 2,822 |  | 2,528 |  | 2,277 |
| Proceeds from exercise of stock options.. |  | 838 |  | 1,094 |  | 7,661 |
| Taxes paid related to net share settlement of RSUs |  | $(3,550)$ |  | $(5,128)$ |  | (103) |
| Net cash provided by financing activities. |  | 863,278 |  | 4,830 |  | 1,087,164 |
| Increase/(Decrease) in cash and cash equivalents |  | 65,489 |  | $(650,283)$ |  | 468,074 |
| Cash and cash equivalents, beginning of the year |  | 534,801 |  | 1,185,084 |  | 717,010 |
| Cash and cash equivalents, end of the year.. | \$ | 600,290 | \$ | 534,801 | \$ | 1,185,084 |

See accompanying notes to Consolidated Financial Statements.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS-(Continued)

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  |
|  | (In thousands) |  |  |  |  |  |
| Supplemental disclosure of cash flow information |  |  |  |  |  |  |
| Cash paid during the year for: |  |  |  |  |  |  |
| Interest... | \$ | 116,524 | \$ | 81,069 | \$ | 81,793 |
| Income taxes | \$ | 65,866 | \$ | 76,709 | \$ | 38,671 |
| Non-cash investing and financing activities: |  |  |  |  |  |  |
| Net change in unrealized holding (loss)/gain on securities available-for-sale, net of tax | \$ | $(7,949)$ | \$ | 485 | \$ | 3,886 |
| Net change in unrealized gain on interest rate swaps designated as cash flow hedges $\qquad$ | \$ | 1,525 | \$ | 719 | \$ | 825 |
| Transfers to other real estate owned from loans held for investment. | \$ | 5,476 | \$ | 1,243 | \$ | 2,698 |
| Loans transferred to loans held for sale................................... | \$ | - | \$ | 8,000 | \$ | 7,953 |
| Loans to facilitate the sale of other real estate owned............... | \$ | - | \$ | 10,500 | \$ | 2,616 |
| Issuance of stock related to acquisition................................... | \$ | - | \$ | 34,862 | \$ |  |
| Supplemental disclosure for acquisitions |  |  |  |  |  |  |
| Cash and cash equivalents............... | \$ | - | \$ | 283,932 | \$ | - |
| Short-term investments ........................................................ |  | - |  | 5,000 |  |  |
| Securities available-for-sale |  | - |  | 88,044 |  |  |
| FHLB and FRB stock. |  | - |  | 19,890 |  |  |
| Loans.. |  | - |  | 705,792 |  |  |
| Premises and equipment. |  | - |  | 6,239 |  |  |
| Cash surrender value of life insurance |  | - |  | 46,083 |  |  |
| Deferred tax assets, net ........................................................ |  | - |  | 40,690 |  |  |
| Core deposit intangible |  | - |  | 6,122 |  |  |
| Accrued interest receivable and other assets |  | - |  | 10,689 |  | - |
| Total assets acquired........................................................ |  | - |  | 1,212,481 |  | - |
| Deposits............................................................................. |  | - |  | 813,888 |  |  |
| Advances from Federal Home Loan Bank . |  | - |  | 30,000 |  | - |
| Accrued interest payable and other liabilities .......................... |  | - |  | 8,512 |  | - |
| Total liabilities assumed |  | - |  | 852,400 |  | - |
| Net assets acquired | \$ | - | \$ | 360,081 | \$ | - |
| Cash paid. | \$ | - | \$ | 285,324 | \$ | - |
| Fair value of common stock issued ........................................ |  | - |  | 34,862 |  | - |
| Total consideration paid ................................................ | \$ | - | \$ | 320,186 | \$ | - |

See accompanying notes to Consolidated Financial Statements.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## 1. Summary of Significant Accounting Policies

The accompanying Consolidated Financial Statements include the accounts of Cathay General Bancorp (the "Bancorp"), a Delaware corporation, its wholly-owned subsidiaries, Cathay Bank (the "Bank"), a California state-chartered bank, eight limited partnerships investing in affordable housing projects, Asia Realty Corp., and GBC Venture Capital, Inc. (together, the "Company"). All significant inter-company transactions and balances have been eliminated in consolidation. The Consolidated Financial Statements of the Company are prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP") and general practices within the banking industry.

Organization and Background. The Bancorp's primary business is to act as the holding company for the Bank.
The Bank is a commercial bank, servicing primarily the individuals, professionals, and small to medium-sized businesses in the local markets in which its branches are located. Its operations include the acceptance of checking, savings, and time deposits, and the making of commercial, real estate, and consumer loans. The Bank also offers trade financing, letters of credit, wire transfer, foreign currency spot and forward contracts, Internet banking, investment services, and other customary banking services to its customers. The Bank owns $100 \%$ of the common securities of the following subsidiaries: Cathay Holdings LLC and Cathay New Asia Community Development Corporation.

Use of Estimates. The preparation of the Consolidated Financial Statements in accordance with GAAP requires management of the Company to make several estimates and assumptions relating to the reported amount of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the Consolidated Financial Statements and the reported amounts of revenues and expenses during the period. Actual results could differ from those estimates. The significant estimates subject to change relate to the allowance for loan losses.

Concentrations. The Bank was incorporated in California and started its business from California. Therefore, loans originated, and deposits solicited were mainly from California. As of December 31, 2018, gross loans were primarily comprised of $48.0 \%$ of commercial mortgage loans, $26.4 \%$ of residential mortgage loans, and $19.6 \%$ of commercial loans. As of December 31, 2018, approximately 57\% of the Bank's residential mortgages were for properties located in California.

Allowance for Loan Losses. The determination of the amount of the provision for loan losses charged to operations reflects management's current judgment about the credit quality of the loan portfolio and takes into consideration changes in lending policies and procedures, changes in economic and business conditions, changes in the nature and volume of the portfolio and in the terms of loans, changes in the experience, ability and depth of lending management, changes in the volume and severity of past due, non-accrual and adversely classified or graded loans, changes in the quality of the loan review system, changes in the value of underlying collateral for collateral-dependent loans, the existence and effect of any concentrations of credit and the effect of competition, legal and regulatory requirements, and other external factors. The nature of the process by which loan losses is determined and the appropriate allowance for loan losses requires the exercise of considerable judgment. The allowance is increased or decreased by the provision or credit to the allowance for loan losses and decreased by charge-offs when management believes the uncollectability of a loan is confirmed. Subsequent recoveries, if any, are credited to the allowance.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The total allowance for loan losses consists of two components: specific allowances and general allowances. To determine the appropriateness of the allowance in each of these two components, two primary methodologies are employed, the individual loan review analysis methodology and the classification migration methodology. These methodologies support the basis for determining allocations between the various loan categories and the overall appropriateness of our allowance to provide for probable losses inherent in the loan portfolio. These methodologies are further supported by additional analysis of relevant factors such as the historical losses in the portfolio, and environmental factors which include trends in delinquency and non-accrual, and other significant factors, such as the national and local economy, the volume and composition of the portfolio, strength of management and loan staff, underwriting standards, and the concentration of credit.

The Bank's management allocates a specific allowance for "Impaired Credits," in accordance with Accounting Standard Codification ("ASC") Section 310-10-35. For non-Impaired Credits, a general allowance is established for those loans internally classified and risk graded Pass, Watch, Special Mention, or Substandard based on historical losses in the specific loan portfolio and a reserve based on environmental factors determined for that loan group. The level of the general allowance is established to provide coverage for management's estimate of the credit risk in the loan portfolio by various loan segments not covered by the specific allowance.

Securities. Securities are classified as held-to-maturity when management has the ability and intent to hold these securities until maturity. Securities are classified as available-for-sale when management intends to hold the securities for an indefinite period of time, or when the securities may be utilized for tactical asset/liability purposes and may be sold from time to time to manage interest rate exposure and resultant prepayment risk and liquidity needs. Securities are classified as trading securities when management intends to sell the securities in the near term. Securities purchased are designated as held-tomaturity, available-for-sale, equity securities or trading securities at the time of acquisition.

Securities held-to-maturity are stated at cost, adjusted for the amortization of premiums and the accretion of discounts on a level-yield basis. The carrying value of these assets is not adjusted for temporary declines in fair value since the Company has the positive intent and ability to hold them to maturity. Securities available-for-sale are carried at fair value, and any unrealized holding gains, or losses are excluded from earnings and reported as a separate component of stockholders’ equity, net of tax, in accumulated other comprehensive income until realized. Realized gains or losses are determined on the specific identification method. Premiums and discounts are amortized or accreted as adjustment of yield on a level-yield basis. Equity securities are carried at fair value, and any unrealized holding gains, or losses are included in earnings and reported under non-interest income in the consolidated statements of operations and comprehensive income.

ASC Topic 320 requires an entity to assess whether the entity has the intent to sell the debt security or more likely than not will be required to sell the debt security before its anticipated recovery. If either of these conditions is met, an entity must recognize an other-than-temporary impairment ("OTTI"). If an entity does not intend to sell the debt security and will not be required to sell the debt security, the entity must consider whether it will recover the amortized cost basis of the security. If the present value of expected cash flows is less than the amortized cost basis of the security, OTTI shall be considered to have occurred. OTTI is then separated into the amount of the total impairment related to credit losses and the amount of the total impairment related to all other factors. An entity determines the impairment related to credit losses by comparing the present value of cash flows expected to be collected from the security with the amortized cost basis of the security. OTTI related to the credit loss is then recognized in earnings. OTTI related to all other factors is recognized in other comprehensive income. OTTI not related to the credit loss for a held-to-maturity security should be recognized separately in a new category of other comprehensive income and amortized over the remaining life of the debt security as an increase in the carrying value of the security only when the entity does not intend to sell the security and it is not more likely than not that the entity will be required to sell the security before recovery of its remaining amortized cost basis. The Company has both the ability and the intent to hold and it is not more likely than not that the Company will be required to sell those securities with unrealized losses before recovery of their amortized cost basis.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Trading securities are reported at fair value, with unrealized gains or losses included in income.
Investment in Federal Home Loan Bank ("FHLB") Stock. As a member of the FHLB system the Bank is required to maintain an investment in the capital stock of the FHLB. The amount of investment is also affected by the outstanding advances under the line of credit the Bank maintains with the FHLB. FHLB stock is carried at cost and is pledged as collateral to the FHLB. FHLB stock is periodically evaluated for impairment based on ultimate recovery of par value. The carrying amount of the FHLB stock was $\$ 17.3$ million at December 31, 2018, and $\$ 23.1$ million at December 31, 2017. As of December 31,2018 , the Company owned 172,500 shares of FHLB stock, which exceeded the minimum stock requirement of 150,000 shares.

Loans Held for Investment. Loans receivable that the Company has the intent and ability to hold for the foreseeable future or until maturity are stated at their outstanding principal, reduced by an allowance for loan losses and net of deferred loan fees or costs on originated loans and unamortized premiums or discounts on purchased loans. Nonrefundable fees and direct costs associated with the origination or purchase of loans are deferred and netted against outstanding loan balances. The deferred net loan fees and costs are recognized in interest income as an adjustment to yield over the loan term using the effective interest method or straight-line method. Discounts or premiums on purchased loans are accreted or amortized to interest income using the effective interest method or straight-line method over the remaining period to contractual maturity. Interest on loans is calculated using the simple-interest method on daily balances of the principal amounts outstanding based on an actual or 360-day basis. Generally, loans are placed on nonaccrual status when they become 90 days past due. Loans are considered past due when contractually required principal or interest payments have not been made on the due dates. Loans are also placed on nonaccrual status when management believes, after considering economic and business conditions and collection efforts, that the borrower's financial condition is such that full collection of principal or interest becomes uncertain, regardless of the length of past due status. Once a loan is placed on nonaccrual status, interest accrual is discontinued, and all unpaid accrued interest is reversed against interest income. Interest payments received on nonaccrual loans are reflected as a reduction of principal and not as interest income. A loan is returned to accrual status when the borrower has demonstrated a satisfactory payment trend subject to management's assessment of the borrower's ability to repay the loan.

Loans held for sale are carried at the lower of aggregate cost or fair value. Gains and losses are recorded in non-interest income based on the difference between sales proceeds, net of sales commissions, and carrying value. When a determination is made at the time of commitment to originate or purchase loans as held-for-investment, it is the Company's intent to hold these loans to maturity or for the "foreseeable future," subject to periodic review under the Company's management evaluation processes, including asset/liability management. When the Company subsequently changes its intent to hold certain loans, the loans are transferred from the loans held-for-investment portfolio to the loans held-for-sale portfolio at lower of aggregate cost or fair value.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Impaired Loans. A loan is considered impaired when it is probable that the Bank will be unable to collect all amounts due (i.e. both principal and interest) according to the contractual terms of the loan agreement. The measurement of impairment may be based on (1) the present value of the expected future cash flows of the impaired loan discounted at the loan's original effective interest rate, (2) the observable market price of the impaired loan or (3) the fair value of the collateral of a collateraldependent loan. The amount by which the recorded investment in the loan exceeds the measure of the impaired loan is recognized by recording a valuation allowance with a corresponding charge to the provision for loan losses. The Company stratifies its loan portfolio by size and treats smaller non-performing loans with an outstanding balance based on the Company's defined criteria, generally where the loan amount is $\$ 500,000$ or less, as a homogenous portfolio. Once a loan has been identified as a possible problem loan, the Company conducts a periodic review of such loan in order to test for impairment. When loans are placed on an impaired status, previously accrued but unpaid interest is reversed against current income and subsequent payments received are generally first applied toward the outstanding principal balance of the loan.

Troubled Debt Restructured Loan ("TDR"). A TDR is a formal modification of the terms of a loan when the lender, for economic or legal reasons related to the borrower's financial difficulties, grants a concession to the borrower. The concessions may be granted in various forms, including reduction in the stated interest rate, reduction in the loan balance or accrued interest, or extension of the maturity date. Although these loan modifications are considered TDRs, TDR loans that have, pursuant to the Bank's policy, performed under the restructured terms and have demonstrated sustained performance under the modified terms for six months are returned to accrual status. The sustained performance considered by management pursuant to its policy includes the periods prior to the modification if the prior performance met or exceeded the modified terms. This would include cash paid by the borrower prior to the restructure to set up interest reserves. Loans classified as TDRs are reported as impaired loans.

Unfunded Loan Commitments. Unfunded loan commitments are generally related to providing credit facilities to clients of the Bank and are not actively traded financial instruments. These unfunded commitments are disclosed as off-balance sheet financial instruments in Note 13 in the Notes to Consolidated Financial Statements.

Letter of Credit Fees. Issuance and commitment fees received for the issuance of commercial or standby letters of credit are recognized over the term of the instruments.

Premises and Equipment. Premises and equipment are carried at cost, less accumulated depreciation. Depreciation is computed on the straight-line method based on the following estimated useful lives of the assets:


Estimated Useful Life (in years)
15 to 45
5 to 20
3 to 25
Shorter of useful lives or the terms of the leases

Improvements are capitalized and amortized to occupancy expense based on the above table. Construction in process is carried at cost and includes land acquisition cost, architectural fees, general contractor fees, capitalized interest and other costs related directly to the construction of a property.

Other Real Estate Owned. Real estate acquired in the settlement of loans is initially recorded at fair value, less estimated costs to sell. Specific valuation allowances on other real estate owned are recorded through charges to operations to recognize declines in fair value subsequent to foreclosure. Gain or loss on sale is recognized when certain criteria relating to the buyer's initial and continuing investment in the property are met.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Investments in Affordable Housing Partnerships and Other Tax Credit Investments. The Company is a limited partner in limited partnerships that invest in low-income housing projects that qualify for Federal and/or State income tax credits and limited partnerships that invests in alternative energy systems. As further discussed in Note 6, the partnership interests are accounted for utilizing the equity method of accounting. As of December 31, 2018, nine of the limited partnerships in which the Company has an equity interest were determined to be variable interest entities for which the Company is the primary beneficiary. The Company therefore consolidated the financial statements of these nine limited partnerships into its Consolidated Financial Statements. The tax credits from these partnerships are recognized in the consolidated financial statements to the extent they are utilized on the Company's income tax returns. The investments are reviewed for impairment on an annual basis or on an interim basis if an event occurs that would trigger potential impairment.

Investments in Venture Capital. The Company invests in limited partnerships that invest in nonpublic companies. These are commonly referred to as venture capital investments. These limited partnership interests are carried under the cost method with other-than-temporary impairment charged against net income.

Goodwill and Goodwill Impairment. Goodwill and other intangible assets are assessed for impairment annually or whenever events or changes in circumstances indicate the carrying amount may not be recoverable. The Company performed its annual impairment test and determined no impairment existed as of December 31, 2018.

Core Deposit Intangible. Core deposit intangible, which represents the purchase price over the fair value of the deposits acquired from other financial institutions, is amortized over its estimated useful life to its residual value in proportion to the economic benefits consumed. If a pattern of consumption cannot be reliably determined, straight-line amortization is used. The Company assesses the recoverability of this intangible asset by determining whether the amortization of the premium balance over its remaining life can be recovered through the remaining deposit portfolio and amortizes core deposit premium over its estimated useful life.

Securities Sold Under Agreements to Repurchase. The Company sells certain securities under agreements to repurchase. The agreements are treated as collateralized financing transactions and the obligations to repurchase securities sold are reflected as a liability in the accompanying Consolidated Balance Sheets. The securities underlying the agreements remain in the applicable asset accounts.

Bank-Owned Life Insurance. We have purchased single premium life insurance policies ("bank-owned life insurance") on certain officers. The Bank is the beneficiary under each policy. In the event of the death of a covered officer, we will receive the specified insurance benefit from the insurance carrier and pay a fixed dollar amount to the beneficiary designated by the officer. Bank-owned life insurance is recorded at the amount that can be realized under the insurance contract at the balance sheet date, which is the cash surrender value adjusted for other charges or other amounts due, if any, that are probable at settlement.

Stock-Based Compensation. Stock option compensation expense is calculated based on the fair value of the award at the grant date for those options expected to vest and is recognized as an expense over the vesting period of the grant using the straight-line method. The Company uses the Black-Scholes option pricing model to estimate the value of granted options. This model takes into account the option exercise price, the expected life, the current price of the underlying stock, the expected volatility of the Company's stock, expected dividends on the stock and a risk-free interest rate. The Company estimates the expected volatility based on the Company's historical stock prices for the period corresponding to the expected life of the stock options. Restricted stock units are valued at the closing price of the Company's stock on the date of the grant.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Derivatives. The Company follows ASC Topic 815 that establishes accounting and reporting standards for financial derivatives, including certain financial derivatives embedded in other contracts, and hedging activities. It requires the recognition of all financial derivatives as assets or liabilities in the Company's consolidated balance sheet at fair value. The accounting treatment of changes in fair value is dependent upon whether or not a financial derivative is designated as a hedge and, if so, the type of hedge. Fair value is determined using third-party models with observable market data. For derivatives designated as cash flow hedges, changes in fair value are recognized in other comprehensive income and are reclassified to earnings when the hedged transaction is reflected in earnings. For derivatives designated as fair value hedges, changes in the fair value of the derivatives are reflected in current earnings, together with changes in the fair value of the related hedged item if there is a highly effective correlation between changes in the fair value of the interest rate swaps and changes in the fair value of the underlying asset or liability that is intended to be hedged. If there is not a highly effective correlation between changes in the fair value of the interest rate swap and changes in the fair value of the underlying asset or liability that is intended to be hedged, then only the changes in the fair value of the interest rate swaps are reflected in the Company's consolidated financial statements.

Foreign Exchange Forwards and Foreign Currency Option Contracts. We enter into foreign exchange forward contracts and foreign currency option contracts with correspondent banks to mitigate the risk of fluctuations in foreign currency exchange rates for foreign currency certificates of deposit, foreign exchange contracts or foreign currency option contracts entered into with our clients. These contracts are not designated as hedging instruments and are recorded at fair value in our Consolidated Balance Sheets. Changes in the fair value of these contracts as well as the related foreign currency certificates of deposit, foreign exchange contracts or foreign currency option contracts, are recognized immediately in net income as a component of non-interest income. Period end gross positive fair values are recorded in other assets and gross negative fair values are recorded in other liabilities.

Income Taxes. The provision for income taxes is based on income reported for financial statement purposes, and differs from the amount of taxes currently payable, since certain income and expense items are reported for financial statement purposes in different periods than those for tax reporting purposes. The Company accounts for income taxes using the asset and liability approach, the objective of which is to establish deferred tax assets and liabilities for the temporary differences between the financial reporting basis and the tax basis of the Company's assets and liabilities at enacted tax rates expected to be in effect when such amounts are realized or settled. A valuation allowance is established for deferred tax assets if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized.

Comprehensive Income/(loss). Comprehensive income/(loss) is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. Comprehensive income/(loss) generally includes net income/(loss), unrealized gains and losses on investments in securities available-for-sale, and cash flow hedges. Comprehensive income/(loss) and its components are reported and displayed in the Company's consolidated statements of operations and comprehensive income/(loss).

Net Income per Common Share. Earnings per share ("EPS") is computed on a basic and diluted basis. Basic EPS excludes dilution and is computed by dividing net income available to common stockholders by the weighted-average number of common shares outstanding for the period. Diluted EPS reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock or resulted in the issuance of common stock that then shares in the earnings of the Company. Potential dilution is excluded from computation of diluted per-share amounts when a net loss from operations exists.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Foreign Currency Translation. The Company considers the functional currency of its foreign operations to be the United States dollar. Accordingly, the Company remeasures monetary assets and liabilities at year-end exchange rates, while nonmonetary items are remeasured at historical rates. Income and expense accounts are remeasured at the average rates in effect during the year, except for depreciation, which is remeasured at historical rates. Foreign currency transaction gains and losses are recognized in income in the period of occurrence.

Statement of Cash Flows. Cash and cash equivalents include short-term highly-liquid investments that generally have an original maturity of three months or less.

Segment Reporting. Through our branch network and lending units, we provide a broad range of financial services to individuals and companies. These services include demand, time and savings deposits; and commercial and industrial, real estate and consumer lending. While our chief decision makers monitor the revenue streams of our various products and services, operations are managed, and financial performance is evaluated on a company-wide basis. Accordingly, we consider all of our operations to be aggregated in one reportable operating segment.

## Accounting Standards adopted in 2018

In May 2014, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update ("ASU") 2014-09, "Revenue from Contracts with Customers (Topic 606)." The new guidance replaces existing revenue recognition guidance for contracts to provide goods or services to customers and amends existing guidance related to recognition of gains and losses on the sale of certain nonfinancial assets such as real estate. ASU 2014-09 clarifies the principles for recognizing revenue and replaces nearly all existing revenue recognition guidance in U.S. GAAP. Quantitative and qualitative disclosures regarding the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers are also required. ASU 2014-09 as amended by ASU 2015-14, ASU 2016-08, ASU 2016-10 and ASU 2016-12, is effective for interim and annual periods beginning after December 15, 2017 and is applied on either a modified retrospective or full retrospective basis. Our revenue is primarily comprised of net interest income on financial assets and financial liabilities, which is explicitly excluded from the scope of ASU 2014-09, and non-interest income. Accordingly, the new standard did not affect a majority of the Company's revenues. In addition, the new standard did not materially impact the timing or measurement of the Company's revenue recognition as it is consistent with the Company's existing accounting for contracts within the scope of the new standard. The Company adopted this guidance as of January 1, 2018 using the modified retrospective method where there was no cumulative effect adjustment to retained earnings as a result of adopting this new standard. The Company believes the standard did not have a material impact on our consolidated financial statements. The Company has provided a disaggregation of the significant categories of revenues within the scope of this guidance and expanded the qualitative disclosures of the Company's noninterest income. See Note 17 - Revenue from Contracts with Customers for additional information.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

In January 2016, the FASB issued ASU 2016-01, "Financial Instruments Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities." This update requires an entity to measure equity investments with readily determinable fair values at fair value with changes in fair value recognized in net income. Equity investment without readily determinable fair values will be measured at fair value either upon the occurrence of an observable price change or upon identification of an impairment and any amount by which the carrying value exceeding the fair value will be recognized as an impairment in net income. This update also requires an entity to disclose fair value of financial instruments measured at amortized cost on the balance sheet to measure that fair value using the exit price option. In addition, this update requires separate presentation in comprehensive income for changes in the fair value of a liability and in the balance sheet by measurement category and form of financial asset. ASU 2016-01 became effective for interim and annual periods beginning after December 15, 2017. The adoption of the amendment resulted in approximately $\$ 8.6$ million being reclassified from accumulated other comprehensive income to retained earnings, representing an increase to retained earnings as of January 1, 2018, and decreased pre-tax income by $\$ 2.8$ million for the year ended December 31, 2018. See Note 7 - Investment Securities. Also, beginning in the first quarter of 2018, the Company has adopted the exit price notion on fair value measurement of its loan portfolio. As a result of this fair value change, the prior-year figures shown for loans on Note - 18 for comparative purposes will no longer be comparable.

In February 2018, FASB issued ASU 2018-02 to help organizations address certain stranded income tax effects in accumulated other comprehensive income ("AOCI") resulting from the Tax Cuts and Jobs Act of 2017 (the "Tax Legislation"). The amendment provides financial statement preparers with an option to reclassify stranded tax effects within AOCI to retained earnings in each period in which the effect of the changes in the U.S. federal corporate income tax rate in the Tax Legislation (or portion thereof) is recorded. The amendment also includes disclosure requirements regarding the issuer's accounting policy for releasing income tax effects from AOCI. The amendment is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2018. Early adoption is permitted, and organizations should apply the provisions of the amendment either in the period of adoption or retrospectively to each period (or periods) in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Legislation is recognized. The Company elected to reclassify the income tax effects of the Tax Legislation from accumulated other comprehensive income to retained earnings effective January 1, 2018. This resulted in the reclassification of $\$ 515,000$ from accumulated other comprehensive income to retained earnings, representing an increase to retained earnings as of January 1, 2018. See Note 12 - Stockholders Equity and Earnings per Share.

## Recent Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)," which requires lessees to recognize leases onbalance sheet and disclose key information about leasing arrangements. Topic 842 was subsequently amended by ASU No. 2018-01, Land Easement Practical Expedient for Transition to Topic 842; ASU No. 2018-10, Codification Improvements to Topic 842, Leases; and ASU No. 2018-11, Targeted Improvements. The new standard establishes a right-of-use model (ROU) that requires a lessee to recognize a ROU asset and lease liability on the balance sheet for all leases with a term longer than 12 months. Leases will be classified as finance or operating, with classification affecting the pattern and classification of expense recognition in the income statement.

The new standard is effective for us on January 1, 2019, with early adoption permitted. We have adopted the new standard on its effective date. A modified retrospective transition approach is required, applying the new standard to all leases existing at the date of initial application. An entity may choose to use either (1) its effective date or (2) the beginning of the earliest comparative period presented in the financial statements as its date of initial application. If an entity chooses the second option, the transition requirements for existing leases also apply to leases entered into between the date of initial application and the effective date. The entity must also recast its comparative period financial statements and provide the disclosures required under the new standard for the comparative periods. We expect to use the effective date as our date of initial application. Consequently, financial information will not be updated, and the disclosures required under the new standard will not be provided for dates and periods before January 1, 2019.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The new standard provides a number of optional practical expedients in transition. We expect to elect the 'package of practical expedients', which permits us not to reassess under the new standard our prior conclusions about lease identification, lease classification and initial direct costs. We expect to elect all of the new standard's available transition practical expedients.

We expect that this standard will not have a material effect on our financial statements. While we continue to assess all of the effects of adoption, we currently believe the most significant effects relate to (1) the recognition of new ROU assets and lease liabilities on our balance sheet for our real estate and equipment operating leases; and (2) providing significant new disclosures about our leasing activities. We do not expect a significant change in our leasing activities between now and adoption.

On adoption, we currently expect to recognize additional operating liabilities ranging from $\$ 32$ million to $\$ 37$ million, with corresponding ROU assets of the same amount based on the present value of the remaining minimum rental payments under current leasing standards for existing operating leases.

The new standard also provides practical expedients for an entity's ongoing accounting. We currently expect to elect the short-term lease recognition exemption for all leases that qualify. This means, for those leases that qualify, we will not recognize ROU assets or lease liabilities, and this includes not recognizing ROU assets or lease liabilities for existing shortterm leases of those assets in transition. We also currently expect to elect the practical expedient to not separate lease and non-lease components for all of our leases.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." This update requires an entity to use a broader range of reasonable and supportable forecasts, in addition to historical experience and current conditions, to develop an expected credit loss estimate for financial assets and net investments that are not accounted for at fair value through net income. ASU 2016-13 becomes effective for interim and annual periods beginning after December 15, 2019. The Company has designated a management team and begun its implementation efforts by identifying key interpretive issues, assessing its processes and identifying the system requirements against the new guidance to determine what modifications may be required. Management has also selected a loss forecasting modeling approach and has engaged a vendor to assist in the design and implementation of the loss forecasting modeling. The implementation efforts also involve, but are not limited to, assessing potential macroeconomic factors that will be used to determine the reasonable and supportable forecast period. The Company has not yet determined the effect of ASU 2016-13 on its accounting policies or the impact on the Company's consolidated financial statements.

In March 2017, the FASB issued ASU 2017-08, "Receivables- Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities." This update amends the amortization period for certain purchased callable debt securities held at a premium. The amendments require the premium to be amortized to the earliest call date. The amendments do not require an accounting change for securities held at a discount; the discount continues to be amortized to maturity. This update affects all entities that hold investments in callable debt securities that have an amortized cost basis in excess of the amount that is repayable by the issuer at the earliest call date. This update is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Adoption of ASU 2017-08 is not expected to have a significant impact on the Company's consolidated financial statements.

In August 2017, the FASB issued ASU 2017-12, "Derivatives and Hedging (Topic 815)," which targeted improvements to accounting for hedging activities. The amendments in this update are intended to better align an entity's risk management activities and financial reporting for hedging relationships through changes to both the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results. To meet that objective, the amendments expand and refine hedge accounting for both nonfinancial and financial risk components and align the recognition and presentation of the effects of the hedging instrument and the hedged item in the financial statements. For public business entities, the amendments in this update are effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. ASU 2017-12 will be effective for us on January 1, 2019 and is not expected to have a significant impact on our financial statements.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

ASU 2018-16, "Derivatives and Hedging (Topic 815) - Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes." The amendments in this update permit use of the OIS rate based on SOFR as a U.S. benchmark interest rate for hedge accounting purposes under Topic 815 in addition to the interest rates on direct U.S. Treasury obligations, the LIBOR swap rate, the OIS rate based on the Fed Funds Effective Rate and the Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Rate. ASU 2018-16 will be effective for us on January 1, 2019 and is not expected to have a significant impact on our financial statements.

## 2. Acquisition

On July 14, 2017, the Company completed the acquisition of SinoPac Bancorp, the parent of Far East National Bank (FENB), pursuant to a Stock Purchase Agreement, dated as of July 8, 2016, by and between the Company and Bank SinoPac Co. Ltd. Under the terms of the Stock Purchase Agreement, the Company purchased all of the issued and outstanding share capital of SinoPac Bancorp for an aggregate purchase price of $\$ 351.6$ million plus additional post closing payments based on the realization of certain assets of FENB. The Company issued 926,192 shares of common stock as consideration and the remainder of the consideration is payable in cash of which $\$ 100$ million was deferred and paid on November 14, 2017 and $\$ 35.4$ million was deferred and will be released over the next three years. On December 12, 2017, additional cash consideration of $\$ 4.1$ million was paid based on the realized gain from the sale of the building that housed FENB's former Alhambra, California branch. SinoPac Bancorp was merged into Cathay General Bancorp on July 17, 2017 and subsequently, on October 27, 2017, FENB was merged into Cathay Bank. Founded in 1974, FENB offers a wide range of financial services. The acquisition allowed the Company to expand its number of branches in California. As of July 14, 2017, FENB operated nine branches in California, and a representative office in Beijing. The acquisition will be accounted for as a business combination, subject to the provisions of ASC 805-10-50, Business Combinations.

The assets and liabilities, both tangible and intangible, were recorded at their estimated fair values as of the July 14, 2017 acquisition date. We have included the financial results of the business combinations in the condensed consolidated statement of income beginning on the acquisition date. The assets and liabilities, both tangible and intangible, were recorded at their estimated fair values as of the acquisition date. We made significant estimates and exercised significant judgement in estimating fair values and accounting for such acquired assets and liabilities. The assets acquired and liabilities assumed have been accounted for under the acquisition method of accounting.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The fair value of the assets and the liabilities acquired as of July 14, 2017 are shown below:
SinoPac Bancorp
Assets acquired:
Cash and cash equivalents ..... \$ ..... 283,932
Short-term investments ..... 5,000
Securities available-for-sale ..... 88,044
FHLB and FRB stock ..... 19,890
Loans ..... 705,792
Premises and equipment ..... 6,239
Cash surrender value of life insurance ..... 46,083
Deferred tax assets, net ..... 40,690
Core deposit intangible ..... 6,122
Accrued interest receivable and other assets ..... 10,689
Total assets acquired. ..... 1,212,481
Liabilities assumed:
Deposits ..... 813,888
Advances from the Federal Home Loan Bank. ..... 30,000
Accrued interest payable and other liabilities ..... 852,400
Net assets acquired $\$$ ..... 360,081
Cash paid ..... \$ ..... 285,324
Total consideration paid \$ ..... 320,186
Purchase price payab ..... 34,267
Gain from acquisition ..... 5,628

## 3. Cash and Cash Equivalents

The Company manages its cash and cash equivalents, which consist of cash on hand, amounts due from banks, federal funds sold, and short-term investments with original maturity of three months or less, based upon the Company's operating, investment, and financing activities. For the purpose of reporting cash flows, these same accounts are included in cash and cash equivalents.

The Company is required to maintain reserves with the Federal Reserve Bank. Reserve requirements are based on a percentage of deposit liabilities. The average reserve balances required were $\$ 5.4$ million for 2018 and $\$ 7.5$ million for 2017. The average excess balance with Federal Reserve Bank was $\$ 258.6$ million in 2018 and $\$ 359.5$ million in 2017. At December 31, 2018, the Bancorp had $\$ 1.8$ million on deposit in a cash margin account that serves as collateral for the Bancorp's interest rate swaps.

In the consolidated statement of cash flows, the amounts for the year ended December 31, 2017 have been corrected in the current year and differ from the previously reported amounts of $\$ 796.3$ million for decrease/(increase) in short-term investment and interest bearing deposits, $\$ 118.4$ million for acquisitions, net of cash acquired, $\$ 224.7$ million for net cash used by investing activities, $\$ 29.0$ million increase in cash and cash equivalents, $\$ 218.0$ million for cash and cash equivalents, beginning of period and $\$ 247.1$ million for cash and cash equivalents, end of period. The amounts for the year ended December 31, 2016 have been corrected in the current year and differ from the previously reported amounts of $\$ 430.2$ million for decrease/(increase) in short-term investment and interest bearing deposits, $\$ 1.3$ billion for net cash used by investing activities, $\$ 37.9$ million for increase in cash and cash equivalents, $\$ 180.1$ million for cash and cash equivalents, beginning of period and $\$ 218.0$ million for cash and cash equivalents, end of period. In footnote 2 , the amounts for the year ended December 31, 2017 have been corrected in the current year and differ from the previously reported amounts of $\$ 166.9$ million for cash and cash equivalents and $\$ 122.0$ million for short term investments.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 4. Investment Securities

Investment Securities. The following tables reflect the amortized cost, gross unrealized gains, gross unrealized losses, and fair values of debt securities available-for-sale as of December 31, 2018 and debt and equity investment securities as of December 31, 2017:


The amortized cost and fair value of investment securities at December 31, 2018, by contractual maturities are shown below. Actual maturities may differ from contractual maturities because borrowers may have the right to call or repay obligations with or without call or repayment penalties.

|  | Securities Available-for-Sale |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Amortized Cost |  | Fair Value |  |
|  | (In thousands) |  |  |  |
| Due in one year or less. | \$ | 124,807 | \$ | 124,757 |
| Due after one year through five years |  | 465,813 |  | 455,010 |
| Due after five years through ten years. |  | 6,078 |  | 5,856 |
| Due after ten years |  | 671,033 |  | 656,886 |
| Total. | \$ | 1,267,731 | \$ | 1,242,509 |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

There were no sales of mortgage-backed securities during 2018 and 2017. Proceeds of $\$ 105.9$ million were from repayments, maturities and calls of mortgage-backed securities during 2018 compared to proceeds of $\$ 71.6$ million from repayments, maturities, and calls during 2017. Proceeds from sales of other investment securities were $\$ 99.9$ million during 2018 compared to $\$ 111.7$ million during 2017. Proceeds from maturities and calls of other investment securities were $\$ 341.9$ million during 2018 compared to $\$ 491.0$ million during 2017. In 2018, gains of $\$ 36,000$ and losses of $\$ 14,000$ were realized on sales and calls of investment securities compared with gains of $\$ 1.7$ million and losses of $\$ 710,000$ realized in 2017.

The temporarily impaired securities represent $84.9 \%$ of the fair value of investment securities as of December 31, 2018. Unrealized losses for securities with unrealized losses for less than twelve months represent $0.4 \%$, and securities with unrealized losses for twelve months or more represent $2.8 \%$, of the historical cost of these securities. Unrealized losses on these securities generally resulted from increases in interest rates or spreads subsequent to the date that these securities were purchased. At December 31, 2018, 90 issues of securities had unrealized losses for 12 months or longer and 14 issues of securities had unrealized losses of less than 12 months.

Total unrealized losses of $\$ 27.0$ million at December 31, 2018, were primarily caused by increases in interest rates or the widening of credit and liquidity spreads since the dates of acquisition. The contractual terms of those investments do not permit the issuers to settle the security at a price less than the amortized cost of the investment.

At December 31, 2018, management believed the impairment was temporary and, accordingly, no impairment loss on debt securities has been recognized in our Consolidated Statements of Operations. The Company expects to recover the amortized cost basis of its debt securities and has no intent to sell and believes it is more likely than not that it will not be required to sell available-for-sale debt securities that have declined below their cost before their anticipated recovery.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The tables below show the fair value and unrealized losses of the temporarily impaired securities in our investment securities portfolio as of December 31, 2018, and December 31, 2017:


Investment securities having a carrying value of $\$ 28.5$ million at December 31, 2018, and $\$ 272.2$ million at December 31, 2017, were pledged to secure public deposits, other borrowings, treasury tax and loan, securities sold under agreements to repurchase, and foreign exchange transactions.

The adoption of ASU 2016-01 resulted in approximately $\$ 8.6$ million being reclassified from accumulated other comprehensive income to retained earnings, representing an increase to retained earnings as of January 1, 2018. For the year ended December 31, 2018, the Company recognized a net loss of $\$ 2.8$ million due to the decrease in fair value of equity investments with readily determinable fair values. Equity securities were $\$ 25.1$ million as of December 31, 2018, compared to $\$ 28.1$ million as of December 31, 2017.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 5. Loans

Most of the Company's business activity is in markets with a concentration of Chinese-American individuals and businesses located in Southern and Northern California; New York City; Houston and Dallas, Texas; Seattle, Washington; Boston, Massachusetts; Chicago, Illinois; Edison, New Jersey; Rockville, Maryland; Nevada; and Hong Kong. The Company has no specific industry concentration, and generally its loans are collateralized with real property or other pledged collateral of the borrowers. Loans are generally expected to be paid off from the operating profits of the borrowers, refinancing by another lender, or through sale by the borrowers of the secured collateral.

The components of loans in the Consolidated Balance Sheets as of December 31, 2018, and December 31, 2017, were as follows:

|  | As of December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
|  | (In thousands) |  |  |  |
| Type of Loans: |  |  |  |  |
| Commercial loans. | \$ | 2,741,965 | \$ | 2,461,266 |
| Real estate construction loans |  | 581,454 |  | 678,805 |
| Commercial mortgage loans. |  | 6,724,200 |  | 6,482,695 |
| Residential mortgage loans |  | 3,693,853 |  | 3,062,050 |
| Equity lines.. |  | 249,967 |  | 180,304 |
| Installment and other loans |  | 4,349 |  | 5,170 |
| Gross loans. |  | 13,995,788 |  | 12,870,290 |
| Less: |  |  |  |  |
| Allowance for loan losses.. |  | $(122,391)$ |  | $(123,279)$ |
| Unamortized deferred loan fees. |  | $(1,565)$ |  | $(3,245)$ |
| Total loans and leases, net. | \$ | 13,871,832 | \$ | 12,743,766 |
| Loans held for sale | \$ | - | \$ | 8,000 |

The Company pledged real estate loans of $\$ 9.7$ billion at December 31, 2018, and $\$ 8.4$ billion at December 31, 2017, to the Federal Home Loan Bank of San Francisco under its blanket lien pledging program. In addition, the Bank pledged \$21.2 million at December 31, 2018, and $\$ 36.1$ million at December 31, 2017, of its commercial loans to the Federal Reserve Bank's Discount Window under the Borrower-in-Custody program.

Loans serviced for others as of December 31, 2018, totaled $\$ 300.5$ million and were comprised of $\$ 103.2$ million of residential mortgages, $\$ 50.8$ million of commercial real estate loans, $\$ 105.9$ million of construction loans, and $\$ 40.6$ million of commercial loans.

The Company has entered into transactions with its directors, executive officers, or principal holders of its equity securities, or the associates of such persons ("Related Parties"). All loans to Related Parties were current as of December 31, 2018. An analysis of the activity with respect to loans to Related Parties for the years indicated is as follows:

|  | December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
|  | (In thousands) |  |  |  |
| Balance at beginning of year. | \$ | 66,593 | \$ | 51,327 |
| Additional loans made. |  | 18,580 |  | 53,584 |
| Payment received. |  | $(37,910)$ |  | $(38,318)$ |
| Balance at end of year. | \$ | 47,263 | \$ | 66,593 |

At December 31, 2018, recorded investment in impaired loans totaled $\$ 106.9$ million and were comprised of nonaccrual loans, excluding loans held for sale, of $\$ 41.8$ million and accruing TDR's of $\$ 65.1$ million. At December 31, 2017, recorded investment in impaired loans totaled $\$ 117.4$ million and were comprised of nonaccrual loans, excluding loans held for sale, of $\$ 48.8$ million and accruing TDR's of $\$ 68.6$ million. The average balance of impaired loans was $\$ 122.6$ million in 2018 and $\$ 127.1$ million in 2017. We considered all non-accrual loans and TDRs to be impaired. Interest recognized on impaired

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

loans totaled $\$ 3.2$ million in 2018 and $\$ 3.3$ million in 2017. The Bank recognizes interest income on impaired loans based on its existing method of recognizing interest income on non-accrual loans except accruing TDRs. For impaired loans, the amounts previously charged off represent $9.3 \%$ and $7.2 \%$ of the contractual balances for impaired loans at December 31, 2018 and 2017, respectively.

The following table presents impaired loans and the related allowance as of the dates indicated:

|  | Impaired Loans |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | As of December 31, 2018 |  |  |  |  |  | As of December 31, 2017 |  |  |  |  |  |
|  | Unpaid Principal Balance |  | Recorded <br> Investment |  | Allowance |  | Unpaid Principal Balance |  | Recorded <br> Investment |  | Allowance |  |
|  | (In thousands) |  |  |  |  |  |  |  |  |  |  |  |
| With no allocated allowance |  |  |  |  |  |  |  |  |  |  |  |  |
| Commercial loans. | \$ | 32,015 | \$ | 30,368 | \$ | - | \$ | 43,483 | \$ | 42,702 | \$ |  |
| Real estate construction loans. |  | 5,776 |  | 4,873 |  | - |  | 8,821 |  | 8,185 |  |  |
| Commercial mortgage loans...................... |  | 34,129 |  | 24,409 |  | - |  | 37,825 |  | 31,029 |  |  |
| Residential mortgage and equity lines ......... |  | 5,685 |  | 5,665 |  | - |  | 1,301 |  | 1,301 |  | - |
| Subtotal. | \$ | 77,605 | \$ | 65,315 | \$ | - | \$ | 91,430 | \$ | 83,217 | \$ | - |
| With allocated allowance |  |  |  |  |  |  |  |  |  |  |  |  |
| Commercial loans.. | \$ | 6,653 | \$ | 6,570 | \$ | 1,837 | \$ | 891 | \$ | 793 | \$ | 43 |
| Commercial mortgage loans. |  | 27,099 |  | 27,063 |  | 877 |  | 21,733 |  | 21,635 |  | 1,738 |
| Residential mortgage and equity lines ......... |  | 8,934 |  | 7,938 |  | 1,088 |  | 13,022 |  | 11,708 |  | 353 |
| Subtotal. | \$ | 42,686 | \$ | 41,571 | \$ | 3,802 | \$ | 35,646 | \$ | 34,136 | \$ | 2,134 |
| Total impaired loans | \$ | 120,291 | \$ | 106,886 | \$ | 3,802 | \$ | 127,076 | \$ | 117,353 | \$ | 2,134 |

The following table presents the average balance and interest income recognized related to impaired loans for the periods indicated:

|  | For the year ended December 31, |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  | 2018 |  | 2017 |  | 2016 |  |
|  | Average Recorded Investment |  |  |  |  |  | Interest Income Recognized |  |  |  |  |  |
|  | (In thousands) |  |  |  |  |  |  |  |  |  |  |  |
| Commercial loans. | \$ | 44,486 | \$ | 26,957 | \$ | 21,199 | \$ | 685 | \$ | 1,303 | \$ | 767 |
| Real estate construction loans ....................... |  | 6,835 |  | 26,695 |  | 10,362 |  | - |  | - |  | - |
| Commercial mortgage loans......................... |  | 57,596 |  | 58,635 |  | 81,905 |  | 2,125 |  | 1,618 |  | 2,214 |
| Residential mortgage and equity lines............ |  | 13,679 |  | 14,780 |  | 17,553 |  | 356 |  | 381 |  | 481 |
| Subtotal.. | \$ | 122,596 | \$ | 127,067 | \$ | 131,019 | \$ | 3,166 | \$ | 3,302 | \$ | 3,462 |

The following is a summary of non-accrual loans as of December 31, 2018, 2017, and 2016 and the related net interest foregone for the years then ended:

|  | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | (In thousands) |  |  |  |
| Non-accrual portfolio loans. | \$ | 41,815 | \$ | 48,787 | \$ | 49,682 |
| Non-accrual loans held-for-sale |  | - |  | 8,000 |  | 7,500 |
| Total non-accrual loans | \$ | 41,815 | \$ | 56,787 | \$ | 57,182 |
| Contractual interest due. | \$ | 1,618 | \$ | 3,254 | \$ | 1,573 |
| Interest recognized |  | 66 |  | 86 |  | 95 |
| Net interest foregone.... | \$ | 1,552 | \$ | 3,168 | \$ | 1,478 |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The following tables present the aging of the loan portfolio by type as of December 31, 2018, and December 31, 2017:


The determination of the amount of the allowance for credit losses for problem loans is based on management's current judgment about the credit quality of the loan portfolio and takes into consideration known relevant internal and external factors that affect collectability when determining the appropriate level for the allowance for credit losses. The nature of the process by which the Bank determines the appropriate allowance for credit losses requires the exercise of considerable judgment. This allowance evaluation process is also applied to TDRs since the Bank deems TDRs to be impaired loans. The allowance for loan losses and the reserve for off-balance sheet credit commitments are significant estimates that can and do change based on management's process in analyzing the loan portfolio and on management's assumptions about specific borrowers, underlying collateral, and applicable economic and environmental conditions, among other factors.

At December 31, 2018, accruing TDRs were $\$ 65.1$ million and non-accrual TDRs were $\$ 24.2$ million compared to accruing TDRs of $\$ 68.6$ million and non-accrual TDRs of $\$ 33.4$ million at December 31, 2017. The Company had allocated specific reserves of $\$ 1.5$ million to accruing TDRs and $\$ 826,000$ to non-accrual TDRs at December 31, 2018, and $\$ 1.9$ million to accruing TDRs and $\$ 83,000$ to non-accrual TDRs at December 31, 2017. The following table presents TDRs that were modified during 2018, their specific reserve at December 31, 2018, and charge-offs during 2018:

|  | Pre-Modification | Post-Modification |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Outstanding | Outstanding |  |  |  |
| No. of | Recorded | Recorded | Specific | Charge- <br> Contracts |
| Investment | Investment | Reserve | offs |  |

(Dollars in thousands)

| Commercial loans | 23 | \$ | 13,290 | \$ | 13,290 | \$ | 1,384 | \$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Commercial mortgage loans ................ | 7 |  | 14,626 |  | 14,626 |  | 111 |  |  |
| Residential mortgage and equity lines.... | 4 |  | 1,214 |  | 1,214 |  | 23 |  |  |
| Total | 34 | \$ | 29,130 | \$ | 29,130 | \$ | 1,518 | \$ |  |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The following table presents TDRs that were modified during 2017, their specific reserve at December 31, 2017, and charge-offs during 2017:


The following table presents TDRs that were modified during 2016, their specific reserve at December 31, 2016, and charge-offs during 2016:

| No. of Contracts |  | Pre-Modification Outstanding Recorded Investment |  | Post-Modification Outstanding Recorded Investment |  | pecific serve |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Dollars in thousands) |  |  |  |  |  |  |  |  |
| 24 | \$ | 30,215 | \$ | 29,385 | \$ | 1,746 | \$ | 830 |
| 4 |  | 4,153 |  | 4,153 |  | 34 |  |  |
| 2 |  | 367 |  | 367 |  | - |  |  |
| 30 | \$ | 34,735 | \$ | 33,905 | \$ | 1,780 | \$ | 830 |

A summary of TDRs by type of concession and by type of loans as of December 31, 2018, and December 31, 2017, are shown below:

| Accruing TDRs | December 31, 2018 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Payment Deferral |  | Rate Reduction |  | Rate Reduction and Payment Deferral |  | Total |  |
|  | (In thousands) |  |  |  |  |  |  |  |
| Commercial loans. | \$ | 18,135 | \$ | - | \$ | - | \$ | 18,135 |
| Commercial mortgage loans. |  | 14,022 |  | 7,420 |  | 19,418 |  | 40,860 |
| Residential mortgage loans |  | 3,353 |  | 327 |  | 2,396 |  | 6,076 |
| Total accruing TDRs . | \$ | 35,510 | \$ | 7,747 | \$ | 21,814 | \$ | 65,071 |


| Non-accrual TDRs | December 31, 2018 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Payment <br> Deferral |  | Rate Reduction |  | Rate Reduction and Payment Deferral |  | Total |  |
|  | (In thousands) |  |  |  |  |  |  |  |
| Commercial loans... | \$ | 13,771 | \$ |  | \$ | - | \$ | 13,771 |
| Commercial mortgage loans. |  | 3,682 |  |  |  | 4,884 |  | 8,566 |
| Residential mortgage loans |  | 1,741 |  | - |  | 111 |  | 1,852 |
| Total non-accrual TDRs . | \$ | 19,194 | \$ | - | \$ | 4,995 | \$ | 24,189 |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)



The activity within our TDR loans for 2018, 2017, and 2016 are shown below:

| Accruing TDRs | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (In thousands) |  |  |  |  |  |
| Beginning balance............................................................. | \$ | 68,565 | \$ | 65,393 | \$ | 81,680 |
| New restructurings |  | 26,114 |  | 73,426 |  | 26,965 |
| Restructured loans restored to accrual status |  | 2,896 |  | - |  | 10,303 |
| Charge-offs |  | - |  | - |  | (88) |
| Payments. |  | $(30,406)$ |  | $(54,095)$ |  | $(24,192)$ |
| Restructured loans placed on non-accrual. |  | $(2,098)$ |  | $(13,919)$ |  | $(13,984)$ |
| Expiration of loan concession |  | - |  | (2,240) |  | $(15,291)$ |
| Ending balance. | \$ | 65,071 | \$ | 68,565 | \$ | 65,393 |
| Non-accrual TDRs | 2018 |  | 2017 |  | 2016 |  |
|  |  |  |  | usands) |  |  |
| Beginning balance............................................................ | \$ | 33,416 | \$ | 29,722 | \$ | 39,923 |
| New restructurings |  | 3,015 |  | 4,009 |  | 6,940 |
| Restructured loans placed on non-accrual............................. |  | 2,098 |  | 13,919 |  | 13,984 |
| Charge-offs . |  | $(2,347)$ |  | $(1,650)$ |  | $(5,271)$ |
| Payments. |  | $(9,097)$ |  | $(11,341)$ |  | $(15,551)$ |
| Foreclosures |  | - |  | $(1,243)$ |  | - |
| Restructured loans restored to accrual status |  | $(2,896)$ |  | - |  | (10,303) |
| Ending balance. | \$ | 24,189 | \$ | 33,416 | \$ | 29,722 |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

A loan is considered to be in payment default once it is 60 to 90 days contractually past due under the modified terms. The Company did not have any loans that were modified as a TDR during the previous twelve months and which had subsequently defaulted as of December 31, 2018.

Under the Company's internal underwriting policy, an evaluation is performed of the probability that the borrower will be in payment default on any of its debt in the foreseeable future without the modification in order to determine whether a borrower is experiencing financial difficulty. As of December 31, 2018, there were no commitments to lend additional funds to those borrowers whose loans have been restructured, were considered impaired, or were on non-accrual status.

As part of the on-going monitoring of the credit quality of our loan portfolio, the Company utilizes a risk grading matrix to assign a risk grade to each loan. Loans are risk rated based on analysis of the current state of the borrower's credit quality. The analysis of credit quality includes a review of sources of repayment, the borrower's current financial and liquidity status and other relevant information. The risk rating categories can be generally described by the following grouping for nonhomogeneous loans:

- Pass/Watch - These loans range from minimal credit risk to lower than average, but still acceptable, credit risk.
- Special Mention - Borrower is fundamentally sound, and the loan is currently protected but adverse trends are apparent that, if not corrected, may affect ability to repay. Primary source of loan repayment remains viable but there is increasing reliance on collateral or guarantor support.
- Substandard - These loans are inadequately protected by current sound worth, paying capacity or pledged collateral. Well-defined weaknesses exist that could jeopardize repayment of debt. Loss may not be imminent, but if weaknesses are not corrected, there is a good possibility of some loss.
- Doubtful - The possibility of loss is extremely high, but due to identifiable and important pending events (which may strengthen the loan) a loss classification is deferred until the situation is better defined.
- Loss - These loans are considered uncollectible and of such little value that to continue to carry the loans as an active asset is no longer warranted.

The following tables present loan portfolio by risk rating as of December 31, 2018, and as of December 31, 2017:

|  | As of December 31, 2018 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pass/Watch |  | Special Mention |  | Substandard |  | Doubtful |  | Total |  |
|  | (In thousands) |  |  |  |  |  |  |  |  |  |
| Commercial loans ...................................... | \$ | 2,603,901 | \$ | 87,987 | \$ | 50,077 | \$ | - | \$ | 2,741,965 |
| Real estate construction loans ...................... |  | 514,406 |  | 62,175 |  | 4,873 |  | - |  | 581,454 |
| Commercial mortgage loans ........................ |  | 6,337,368 |  | 304,791 |  | 82,041 |  | - |  | 6,724,200 |
| Residential mortgage and equity lines ........... |  | 3,934,762 |  | - |  | 9,058 |  | - |  | 3,943,820 |
| Installment and other loans .......................... |  | 4,349 |  | - |  | - |  | - |  | 4,349 |
| Total gross loans ....................................... | \$ | 13,394,786 |  | 454,953 | \$ | 146,049 | \$ | - | \$ | 13,995,788 |
| Loans held for sale .................................... | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

|  | As of December 31, 2017 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pass/Watch |  | Special Mention | Substandard |  | Doubtful |  | Total |  |
|  | (In thousands) |  |  |  |  |  |  |  |  |
| Commercial loans | \$ | 2,281,698 | \$ 118,056 | \$ | 61,503 | \$ | 9 | \$ | 2,461,266 |
| Real estate construction loans ...................... |  | 616,411 | 54,209 |  | 8,185 |  | - |  | 678,805 |
| Commercial mortgage loans ....................... |  | 6,004,258 | 308,924 |  | 169,513 |  | - |  | 6,482,695 |
| Residential mortgage and equity lines ........... |  | 3,232,606 | - |  | 9,748 |  | - |  | 3,242,354 |
| Installment and other loans .......................... |  | 5,170 | - |  | - |  | - |  | 5,170 |
| Total gross loans | \$ | 12,140,143 | \$ 481,189 | \$ | 248,949 | \$ | 9 | \$ | $\underline{12,870,290}$ |
| Loans held for sale ..................................... | \$ | - | \$ | \$ | 8,000 | \$ | - | \$ | 8,000 |

The following table presents the balance in the allowance for loan losses by portfolio segment and based on impairment method as of December 31, 2018, and as of December 31, 2017.

|  | Commercial Loans |  | Real Estate Construction Loans |  | Commercial <br> Mortgage <br> Loans |  | Residential Mortgage and Equity$\qquad$ |  | Consumer and Other |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | (In thous | and |  |  |  |  |  |
| December 31, 2018 |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans individually evaluated for impairment |  |  |  |  |  |  |  |  |  |  |  |  |
| Allowance. | \$ | 1,837 | \$ | - | \$ | 877 | \$ | 1,088 | \$ |  | \$ | 3,802 |
| Balance . | \$ | 36,940 | \$ | 4,873 | \$ | 51,471 |  | 13,602 | \$ | - | \$ | 106,886 |
| Loans collectively evaluated for impairment |  |  |  |  |  |  |  |  |  |  |  |  |
| Allowance. | \$ | 53,141 | \$ | 19,626 | \$ | 32,610 | \$ | 13,194 | \$ | 18 | \$ | 118,589 |
| Balance . | \$ | 2,705,025 | \$ | 576,581 | \$ | 6,672,729 |  | 3,930,218 | \$ | 4,349 |  | 13,888,902 |
| Total allowance. | \$ | 54,978 | \$ | 19,626 | \$ | 33,487 | \$ | 14,282 | , | 18 | \$ | 122,391 |
| Total balance. | \$ | 2,741,965 | \$ | 581,454 | \$ | 6,724,200 |  | 3,943,820 | \$ | 4,349 |  | 3,995,788 |
| December 31, 2017 |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans individually evaluated for impairment |  |  |  |  |  |  |  |  |  |  |  |  |
| Allowance ......................................... | \$ | 43 | \$ | - | \$ | 1,738 | \$ | 353 | \$ | - | \$ | 2,134 |
| Balance . | \$ | 43,495 | \$ | 8,185 | \$ | 52,664 |  | 13,009 |  | - | \$ | 117,353 |
| Loans collectively evaluated for impairment |  |  |  |  |  |  |  |  |  |  |  |  |
| Allowance......................................... | \$ | 49,753 | \$ | 24,838 | \$ | 35,872 | \$ | 10,660 | \$ | 22 | \$ | 121,145 |
| Balance ............................................... | \$ | 2,417,771 | \$ | 670,620 | \$ | 6,430,031 |  | 3,229,345 | \$ | 5,170 |  | 2,752,937 |
| Total allowance.................................. | \$ | 49,796 | \$ | 24,838 | \$ | 37,610 | \$ | 11,013 | \$ | 22 | \$ | 123,279 |
| Total balance..................................... | \$ | 2,461,266 | \$ | 678,805 | \$ | 6,482,695 |  | 3,242,354 | \$ | 5,170 |  | 2,870,290 |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The following table details activity in the allowance for loan losses by portfolio segment for the years ended December 31, 2018 and 2017. Allocation of a portion of the allowance to one category of loans does not preclude its availability to absorb losses in other categories.

|  | $\begin{gathered} \text { Commercial } \\ \text { Loans } \\ \hline \end{gathered}$ |  | Real Estate Construction Loans |  | Commercial <br> Mortgage Loans |  | Residential Mortgage and Equity Lines |  | Installment and Other Loans |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (In thousands) |  |  |  |  |  |  |  |  |  |  |  |
| 2017 Beginning Balance . | \$ | 49,203 | \$ | 23,268 | \$ | 34,864 | \$ | 11,620 |  | 11 |  | \$ 118,966 |
| Provision/(reversal) for loan losses ................... |  | 504 |  | 1,341 |  | $(3,723)$ |  | (626) |  | 4 |  | $(2,500)$ |
| Charge-offs |  | $(3,313)$ |  | - |  | (860) |  |  |  | - |  | $(4,173)$ |
| Recoveries. |  | 3,402 |  | 229 |  | 7,329 |  | 19 |  | 7 |  | 10,986 |
| Net Recoveries |  | 89 |  | 229 |  | 6,469 |  | 19 |  | 7 |  | 6,813 |
| 2017 Ending Balance . | \$ | 49,796 | \$ | 24,838 | \$ | 37,610 | \$ | 11,013 | \$ | 22 |  | \$ 123,279 |
| Reserve for impaired loans. | \$ | 43 | \$ | - | \$ | 1,738 | \$ | 353 | \$ | - |  | \$ 2,134 |
| Reserve for non-impaired loans | \$ | 49,753 | , | 24,838 | \$ | 35,872 | \$ | 10,660 | \$ | 22 |  | \$ 121,145 |
| Reserve for off-balance sheet credit commitments. $\qquad$ | \$ | 2,919 | \$ | 1,360 | \$ | 114 | \$ | 190 | \$ | 5 |  | \$ 4,588 |
| 2018 Beginning Balance . | \$ | 49,796 | \$ | 24,838 | \$ | 37,610 | \$ | 11,013 | \$ | 22 |  | \$ 123,279 |
| Provision/(reversal) for loan losses ................... |  | 3,936 |  | $(5,389)$ |  | $(6,289)$ |  | 3,246 |  | (4) |  | $(4,500)$ |
| Charge-offs |  | (629) |  | - |  | $(2,348)$ |  | (229) |  | - |  | $(3,206)$ |
| Recoveries. |  | 1,875 |  | 177 |  | 4,514 |  | 252 |  | - |  | 6,818 |
| Net Recoveries |  | 1,246 |  | 177 |  | 2,166 |  | 23 |  | - |  | 3,612 |
| 2018 Ending Balance . | \$ | 54,978 | \$ | 19,626 | \$ | 33,487 | \$ | 14,282 | \$ | 18 |  | \$ 122,391 |
| Reserve for impaired loans. | \$ | 1,837 | \$ | - | \$ | 877 | \$ | 1,088 |  | - |  | \$ 3,802 |
| Reserve for non-impaired loans.. | \$ | 53,141 | \$ | 19,626 | \$ | 32,610 | \$ | 13,194 |  | 18 |  | \$ 118,589 |
| Reserve for off-balance sheet credit commitments. $\qquad$ | \$ | 1,161 | \$ | 745 | \$ | 95 | \$ | 246 |  | 3 |  | \$ 2,250 |

An analysis of the activity in the allowance for credit losses for the years ended December 31, 2018, 2017, and 2016 is as follows:

|  | For the year ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  |
| Allowance for Loan Losses |  |  | (In thousands) |  |  |  |
| Balance at beginning of year. | \$ | 123,279 | \$ | 118,966 | \$ | 138,963 |
| Reversal for credit losses. |  | $(4,500)$ |  | $(2,500)$ |  | $(15,650)$ |
| Loans charged off. |  | $(3,206)$ |  | $(4,173)$ |  | $(18,903)$ |
| Recoveries of charged off loans ........................................ |  | 6,818 |  | 10,986 |  | 14,556 |
| Balance at end of year ..................................................... | \$ | 122,391 | \$ | 123,279 | \$ | 118,966 |
| Reserve for Off-balance Sheet Credit Commitments |  |  |  |  |  |  |
| Balance at beginning of year ............................................. | \$ | 4,588 | \$ | 3,224 | \$ | 1,494 |
| (Reversal)/provision for credit losses and transfers............... |  | $(2,338)$ |  | 1,364 |  | 1,730 |
| Balance at end of year ..................................................... | \$ | $\underline{2,250}$ | \$ | 4,588 | \$ | $\underline{3,224}$ |

Residential mortgage loans in process of formal foreclosure proceedings were $\$ 862,000$ at December 31, 2018, compared to $\$ 3.5$ million at December 31, 2017.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 6. Investments in Affordable Housing and Alternative Energy Partnerships

The Company holds ownership interests in a number of limited partnerships that were formed to develop and operate housing for lower-income tenants throughout the United States and alternative energy partnerships that qualify for energy tax credits. The Company evaluates its interests in these partnerships to determine whether they meet the definition of a Variable Interest Entity ("VIE") and whether the Company is required to consolidate these entities. A VIE is consolidated by its primary beneficiary, which is the party that has both (i) the power to direct the activities that most significantly impact the economic performance of the VIE and (ii) a variable interest that could potentially be significant to the VIE. To determine whether or not a variable interest the Company holds could potentially be significant to the VIE, the Company considers both qualitative and quantitative factors regarding the nature, size and form of the Company's involvement with the VIE. While the Company has determined that its interests in these entities meet the definition of a variable interest in accordance with ASC 810, the Company has determined that the Company is not the primary beneficiary in all but nine of these partnerships because the Company does not have the power to direct the activities that most significantly impact the economic performance of the entities including operational and credit risk management activities. As the Company is not the primary beneficiary, the Company did not consolidate the entities.

The investments in these entities approximates the maximum exposure to loss as a result of the Company's involvement with these unconsolidated entities. The balance of the Company's investments in these entities was $\$ 282.7$ million and $\$ 272.9$ million as of December 31, 2018 and 2017, respectively.

The Company's investments in these partnerships, net, are presented in the table below:

| (In thousands) | As of December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
| Investments in affordable housing partnerships, net | \$ | 259,046 | \$ | 260,112 |
| Other borrowings for affordable housing limited partnerships | \$ | 17,298 | \$ | 17,481 |
| Investments in affordable housing and alternative energy partnerships, unfunded commitments | \$ | 113,046 | \$ | 124,657 |
| Investments in alternative energy tax credit partnerships, net. | \$ | 23,688 | \$ | 12,759 |

At December 31, 2018, nine of the limited partnerships in which the Company has an equity interest were determined to be variable interest entities for which the Company is the primary beneficiary. The consolidation of these limited partnerships in the Company's Consolidated Financial Statements increased total assets and liabilities by $\$ 23.8$ million at December 31, 2018, and by $\$ 23.6$ million at December 31, 2017. Recourse in other borrowings for affordable housing limited partnerships is limited to the assets of the limited partnerships. Investments in alternative energy partnerships were $\$ 23.7$ million as of December 31, 2018. At December 31, 2018, $\$ 7.8$ million of this investment is in an escrow account with a major bank. These funds will be disbursed in 2019 for solar energy systems to be installed in 2019 and will generate solar tax credits of $\$ 8.0$ million. Unfunded commitments for affordable housing limited partnerships and alternative energy tax credit partnerships were recorded under other liabilities.

The Company's unfunded commitments related to investments in qualified affordable housing and alternative energy partnerships, net, are estimated to be paid as follows:

| Year Ending December 31, | Amount <br> (In thousands) |  |
| :---: | :---: | :---: |
| 2019. | \$ | 55,962 |
| 2020. |  | 29,267 |
| 2021. |  | 11,669 |
| 2022. |  | 11,182 |
| 2023. |  | 1,473 |
| Thereafter |  | 3,493 |
| Total unfunded commitments | \$ | 113,046 |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Each of the partnerships must meet regulatory requirements for affordable housing for a minimum 15-year compliance period to fully utilize the tax credits. If the partnerships cease to qualify during the compliance period, the credits may be denied for any period in which the projects are not in compliance and a portion of the credits previously taken is subject to recapture with interest. The remaining tax credits to be utilized over a multiple-year period are $\$ 200.5$ million for Federal and $\$ 1.8$ million for state as of December 31, 2018. Losses in excess of the Bank's investment in three limited partnerships have not been recorded in the Company's Consolidated Financial Statements because the Company had fully satisfied all capital commitments required under the respective limited partnership agreements. In 2018, non-interest expense included a $\$ 4.5$ million impairment charge for investments in low income housing partnerships. In 2017, the Bank took a $\$ 2.6$ million pretax write-down of low-income housing tax credit investments, as a result of the enactment of the Tax Cuts and Jobs Act.

The following table summarizes the Company's usage of affordable housing and other tax credits including energy tax credits.

| (In thousands) | As of December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  |
| Affordable housing and other tax credits recognized | \$ | 18,860 | \$ | 17,727 | \$ | 13,422 |
| Alternative energy tax credit usage . | \$ | 15,013 | \$ | 3,301 | \$ | 24,472 |

## 7. Premises and Equipment

Premises and equipment consisted of the following as of December 31, 2018, and December 31, 2017:

|  | As of December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
|  | (In thousands) |  |  |  |
| Land and land improvements | \$ | 42,476 | \$ | 42,476 |
| Building and building improvements |  | 79,389 |  | 79,179 |
| Furniture, fixtures and equipment |  | 56,503 |  | 53,529 |
| Leasehold improvement |  | 17,075 |  | 15,496 |
| Construction in process. |  | 1,150 |  | 335 |
|  |  | 196,593 |  | 191,015 |
| Less: Accumulated depreciation/amortization ................................................... |  | 93,404 |  | 87,951 |
| Premises and equipment, net... | \$ | 103,189 | \$ | $\underline{103,064}$ |

The amount of depreciation/amortization included in operating expense was $\$ 6.4$ million in 2018, $\$ 6.5$ million in 2017, and $\$ 6.8$ million in 2016.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 8. Deposits

The following table displays deposit balances as of December 31, 2018, and December 31, 2017:

|  |  | As of Dec |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 018 |  | 017 |
|  |  | (In tho | sa |  |
| Demand. | \$ | 2,857,443 | \$ | 2,783,127 |
| NOW accounts |  | 1,365,763 |  | 1,410,519 |
| Money market accounts |  | 2,027,404 |  | 2,248,271 |
| Saving accounts. |  | 738,656 |  | 857,199 |
| Time deposits. |  | 6,713,074 |  | 5,390,777 |
| Total. | \$ | 13,702,340 | \$ | 12,689,893 |

Time deposits outstanding as of December 31, 2018, mature as follows.


Accrued interest payable on customer deposits was $\$ 10.5$ million at December 31, 2018, $\$ 4.4$ million at December 31, 2017, and $\$ 2.9$ million at December 31, 2016. The following table summarizes the interest expense on deposits by account type for the years ended December 31, 2018, 2017, and 2016:

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  |
|  | (In thousands) |  |  |  |  |  |
| Interest bearing demand. | \$ | 2,718 | \$ | 2,242 | \$ | 1,740 |
| Money market accounts . |  | 16,202 |  | 15,062 |  | 13,308 |
| Saving accounts. |  | 1,583 |  | 1,772 |  | 1,046 |
| Time deposits. |  | 86,368 |  | 46,768 |  | 43,327 |
| Total. | \$ | 106,871 | \$ | 65,844 | \$ | 59,421 |

The aggregate amount of domestic time deposits in denominations that meet or exceed the current FDIC insurance limit of $\$ 250,000$ was $\$ 2.8$ billion and $\$ 1.9$ billion as of December 31,2018 and 2017, respectively. Foreign offices time deposits of $\$ 174.4$ million and $\$ 152.0$ million as of December 31, 2018 and 2017, respectively, were in denominations of $\$ 250,000$ or more.

## 9. Borrowed Funds

Securities sold under agreements to repurchase were zero at December 31, 2018, compared to $\$ 100.0$ million with a weighted average rate of $2.86 \%$ at December 31, 2017. As of December 31, 2017, two fixed rate non-callable securities sold under agreements to repurchase totaling $\$ 100$ million with a weighted average rate of $2.86 \%$ as of December 31, 2017.

These transactions are accounted for as collateralized financing transactions and recorded at the amounts at which the securities were sold. The Company may have to provide additional collateral for the repurchase agreements, as necessary. There were no repurchase agreements at December 31, 2018. The underlying collateral pledged for the repurchase agreements consists of U.S. Treasury securities and mortgage-backed securities with a fair value of $\$ 108.4$ million as of December 31, 2017.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The table below provides comparative data for securities sold under agreements to repurchase for the years indicated:

|  | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (Dollars in thousands) |  |  |  |  |  |
| Average amount outstanding during the year ${ }^{(1)}$. |  | 49,589 | \$ | 136,849 | \$ | 381,967 |
| Maximum amount outstanding at month-end ${ }^{(2)}$. |  | 100,000 |  | 150,000 |  | 400,000 |
| Balance, December 31. |  | - |  | 100,000 |  | 350,000 |
| Rate, December 31 |  | -\% |  | 2.86\% |  | 4.06\% |
| Weighted average interest rate for the year. |  | -\% |  | 3.11\% |  | 4.01\% |

(1) Average balances were computed using daily averages.
(2) Highest month-end balances were January 2018, January 2017, and January 2016.

As of December 31, 2018, over-night borrowings from the FHLB were $\$ 200.0$ million at a rate of $2.56 \%$ compared to $\$ 325.0$ million at a rate of $1.41 \%$ at December 31, 2017. As of December 31, 2018, the advances from the FHLB were $\$ 330$ million at a rate of $2.42 \%$ compared to $\$ 105$ million at a rate of $1.41 \%$ as of December 31, 2017. As of December 31, 2018, final maturity for the FHLB advances is $\$ 260$ million in January 2019, $\$ 50$ million in December 2019, and $\$ 20$ million in May 2023.

Pursuant to the Stock Purchase Agreement with Bank SinoPac Co. Ltd, the Company paid $\$ 100$ million of the purchase price on November 14, 2017. The residual payable balance of $\$ 35.2$ million has a floating rate of three-month LIBOR rate plus 150 basis points. As of December 31, 2018, outstanding payable balance of $\$ 17.6$ million has an interest rate of $4.30 \%$. The remaining payments are $\$ 10.6$ million in July 2019 and $\$ 7.0$ million in July 2020 together with applicable accrued interest.

On October 12, 2017, the Bank entered into a term loan agreement of $\$ 75.0$ million with U.S. Bank. The principal amount outstanding as of December 31, 2018 was $\$ 70.3$ million. The loan has a floating rate of one-month LIBOR plus 175 basis points. As of December 31, 2018, the term loan has an interest rate of $4.125 \%$ compared to $3.125 \%$ at December 31, 2017. The principal amount of the long-term debt from U.S. Bank is due and payable in consecutive quarterly installments in the amount of $\$ 4.7$ million each on the last day of each calendar quarter commencing December 31, 2018, with the final installment due and payable on October 12, 2020.

Other Liabilities. On November 23, 2004, the Company entered into an agreement with Mr. Dunson K. Cheng, pursuant to which he agreed to defer any bonus amounts in excess of $\$ 225,000$ for the year ended December 31, 2005, until the later of January 1 of the first year following his separation from service from the Company or the first day of the seventh month following his separation from service from the Company. Accordingly, an amount equal to $\$ 610,000$ was deferred in 2004 and was accrued in other liabilities in the consolidated balance sheet. The Company agreed to accrue interest on the deferred portion of the bonus at $7.0 \%$ per annum compounded quarterly. The deferred amount will be increased each quarter by the amount of interest computed for that quarter. On November 23, 2014, the interest rate was reset to $5.06 \%$ based on 275 basis points above the interest rate on the ten-year Treasury Note on that date. On March 13, 2014, the Compensation Committee of the Company awarded Mr. Cheng a cash bonus in the amount of $\$ 300,000$ for the quarter ended December 31, 2013, and provided as part of the award that payment of the bonus would be deferred until the later of January 1 of the first year following his separation from service from the Company or the first day of the seventh month following his separation from service from the Company. The Company accrues interest on the deferred bonus at $5.02 \%$ per annum compounded quarterly. Beginning on the fifth anniversary of the agreement, the interest rate will be reset at 350 basis points above the then prevailing interest rate on the five-year Treasury Note.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Interest of \$92,000 during 2018, \$87,000 during 2017, and \$83,000 during 2016 was accrued on the deferred bonuses. The balance was $\$ 1.9$ million at December 31, 2018, and $\$ 1.8$ million at December 31, 2017.

We established three special purpose trusts in 2003 and two in 2007 for the purpose of issuing Guaranteed Preferred Beneficial Interests in their Subordinated Debentures to outside investors ("Capital Securities"). The proceeds from the issuance of the Capital Securities as well as our purchase of the common stock of the special purpose trusts were invested in Junior Subordinated Notes of the Company ("Junior Subordinated Notes"). The trusts exist for the purpose of issuing the Capital Securities and investing in Junior Subordinated Notes. Subject to some limitations, payment of distributions out of the monies held by the trusts and payments on liquidation of the trusts, or the redemption of the Capital Securities, are guaranteed by the Company to the extent the trusts have funds on hand at such time. The obligations of the Company under the guarantees and the Junior Subordinated Notes are subordinate and junior in right of payment to all indebtedness of the Company and will be structurally subordinated to all liabilities and obligations of the Company's subsidiaries. The Company has the right to defer payments of interest on the Junior Subordinated Notes at any time or from time to time for a period of up to twenty consecutive quarterly periods with respect to each deferral period. Under the terms of the Junior Subordinated Notes, the Company may not, with certain exceptions, declare or pay any dividends or distributions on its capital stock or purchase or acquire any of its capital stock if it has deferred payment of interest on any Junior Subordinated Notes.

At December 31, 2018, Junior Subordinated Notes totaled $\$ 119.1$ million with a weighted average interest rate of $4.96 \%$, compared to $\$ 119.1$ million with a weighted average rate of $3.78 \%$ at December 31, 2017. The Junior Subordinated Notes have a stated maturity term of 30 years. Interest expense, excluding impact of cash flow interest rate swaps entered into during June 2014, on the Junior Subordinated Notes was $\$ 5.2$ million for 2018 , $\$ 4.1$ million for 2017, and $\$ 3.5$ million for 2016.

## 10. Capital Resources

Total equity was $\$ 2.12$ billion at December 31,2018 , an increase of $\$ 148.6$ million, or $7.5 \%$, from $\$ 1.97$ billion at December 31, 2017, primarily due to increases in net income of $\$ 271.9$ million, proceeds from dividend reinvestment of $\$ 2.8$ million, and proceeds from exercise of stock options of $\$ 838,000$, offset by purchases of treasury stock of $\$ 42.6$ million, shares withheld related to net share settlement of RSUs of $\$ 2.4$ million, and common stock cash dividends of $\$ 83.4$ million. The Company paid cash dividends of $\$ 1.03$ per common share in 2018 and $\$ 0.87$ per common share in 2017.

In January and February of 2016, the Company repurchased the remaining 633,250 shares under the August 2015 two million share repurchase program for $\$ 17.0$ million, or an average price of $\$ 26.82$ per share.

On February 1, 2016, the Board of Directors approved a new stock repurchase program to buy back up to $\$ 45.0$ million of our common stock. In 2016, the Company repurchased $1,380,578$ shares for $\$ 37.5$ million, or $\$ 27.13$ per share under the February 2016 repurchase program. In October 2018, the Company repurchased 200,326 shares for $\$ 7.5$ million, or $\$ 37.65$ per share, and completed its February $2016 \$ 45.0$ million repurchase program.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

On October 26, 2018, the Board of Directors approved a new stock repurchase program to buy back up to $\$ 45.0$ million of our common stock. In 2018, the Company repurchased 913,400 shares for $\$ 35.1$ million, or $\$ 38.43$ per share, under the October 2018 repurchase program. As of December 31, 2018, the Company may repurchase up to $\$ 9.9$ million of its common stock under the October 2018 repurchase program.

The five special purpose trusts are considered variable interest entities. Because the Bancorp is not the primary beneficiary of the trusts, the financial statements of the trusts are not included in the Consolidated Financial Statements of the Company. The Junior Subordinated Notes, all of which were issued before May 19, 2010, are currently included in the Tier 2 capital of the Bancorp for regulatory capital purposes. Under the Dodd-Frank Act, trust preferred securities issued before May 19, 2010 by bank holding companies with assets of less than $\$ 15$ billion as of December 31, 2019 continue to qualify for Tier 1 capital treatment. As of December 31, 2017, the Company's assets exceeded the $\$ 15$ billion threshold and, as a result, the Junior Subordinated Notes no longer qualify as Tier 1 capital for regulatory reporting purposes. The Junior Subordinated Notes qualify as Tier 1 capital for regulatory reporting purposes at December 31, 2016.

The table below summarizes the outstanding Junior Subordinated Notes issued by the Company to each trust as of December 31, 2018:

| Trust Name | Issuance Date |  | ncipal ance of otes | $\begin{gathered} \text { Not } \\ \text { Redeemable } \\ \text { Until } \end{gathered}$ | Stated Maturity | Annualized Coupon Rate | Current <br> Interest Rate | Date of Rate Change | Payable/ Distribution Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (Dollars in thousands) |  |  |  |  |  |  |  |  |
| Cathay Capital <br> Trust I. $\qquad$ | June 26, 2003 | \$ | 20,619 | June 30, | $\begin{gathered} \text { June } 30, \\ 2033 \end{gathered}$ | $\begin{gathered} \text { 3-month } \\ \text { LIBOR } \\ +3.15 \% \end{gathered}$ | 5.95\% | $\begin{gathered} \text { December } 30, \\ 2018 \end{gathered}$ | March 30 <br> June 30 <br> September 30 <br> December 30 |
| Cathay Statutory Trust I. $\qquad$ | $\begin{gathered} \text { September } 17, \\ 2003 \end{gathered}$ |  | 20,619 | $\begin{gathered} \text { September } 17, \\ 2008 \end{gathered}$ | $\begin{gathered} \text { September 17, } \\ 2033 \end{gathered}$ | 3-month <br> LIBOR | 5.79\% | $\begin{gathered} \text { December } 18 \text {, } \\ 2018 \end{gathered}$ | March 17 <br> June 17 $+3.00 \%$ <br> December 17 |
| Cathay Capital <br> Trust II. $\qquad$ | $\begin{gathered} \text { December 30, } \\ 2003 \end{gathered}$ |  | 12,887 | $\begin{gathered} \text { March } 30, \\ 2009 \end{gathered}$ | $\begin{gathered} \text { March } 30, \\ 2034 \end{gathered}$ | $\begin{aligned} & \text { 3-month } \\ & \text { LIBOR } \\ & +2.90 \% \end{aligned}$ | 5.70\% | $\begin{gathered} \text { December } 30, \\ 2018 \end{gathered}$ | March 30 <br> June 30 <br> September 30 <br> December 30 |
| Cathay Capital Trust III $\qquad$ | $\begin{gathered} \text { March } 28, \\ 2007 \end{gathered}$ |  | 46,392 | $\begin{gathered} \text { June } 15 \\ 2012 \end{gathered}$ | $\begin{gathered} \text { June } 15, \\ 2037 \end{gathered}$ | $\begin{gathered} \text { 3-month } \\ \text { LIBOR } \\ +1.48 \% \end{gathered}$ | 4.27\% | $\begin{gathered} \text { December } 15, \\ 2018 \end{gathered}$ | March 15 <br> June 15 <br> September 15 <br> December 15 |
| Cathay Capital <br> Trust IV $\qquad$ | $\begin{gathered} \text { May } 31, \\ 2007 \end{gathered}$ |  | 18,619 | $\begin{gathered} \text { September 6, } \\ 2012 \end{gathered}$ | $\begin{gathered} \text { September 6, } \\ 2037 \end{gathered}$ | 3-month LIBOR $+1.4 \%$ | 4.14\% | $\begin{gathered} \text { December 6, } \\ 2018 \end{gathered}$ | March 6 <br> June 6 <br> September 6 <br> December 6 |
| Total Junior Subor | dinated Notes | \$ | 119,136 |  |  |  |  |  |  |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 11. Income Taxes

For the years ended December 31, 2018, 2017, and 2016, the current and deferred amounts of the income tax expense are summarized as follows:

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  |
|  | (In thousands) |  |  |  |  |  |
| Current: |  |  |  |  |  |  |
| Federal | \$ | 26,820 | \$ | 59,433 | \$ | 28,788 |
| State |  | 36,639 |  | 28,278 |  | 22,364 |
| Total Current. | \$ | 63,459 | \$ | 87,711 | \$ | 51,152 |
| Deferred: |  |  |  |  |  |  |
| Federal | \$ | 1,495 | \$ | 31,818 |  | 11,775 |
| State ...................................................................................... |  | 848 |  | 2,736 |  | 4,174 |
| Total Deferred. | \$ | 2,343 | \$ | 34,554 | \$ | 15,949 |
| Total income tax expense............................................................ | \$ | 65,802 | \$ | 122,265 | \$ | 67,101 |

Temporary differences between the amounts reported in the financial statements and the tax basis of assets and liabilities give rise to deferred taxes. Net deferred tax assets at December 31, 2018, and at December 31, 2017, are included in other assets in the accompanying Consolidated Balance Sheets and are as follows:

|  | As of December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
|  | (In thousands) |  |  |  |
| Deferred Tax Assets |  |  |  |  |
| Loan loss allowance, due to differences in computation of bad debts........................ | \$ | 37,567 | \$ | 37,157 |
| Share-based compensation |  | 3,260 |  | 2,630 |
| Non-accrual interest |  | 2,277 |  | 2,100 |
| Write-down on equity securities and venture capital investments. |  | 2,095 |  | 2,561 |
| Depreciation and amortization |  | 3,798 |  | 1,564 |
| State tax. |  | 4,344 |  | 6,783 |
| Unrealized loss on interest rate swaps |  | 190 |  | 1,158 |
| Unrealized loss on securities available-for-sale, net. |  | 3,864 |  | 198 |
| Unrealized loss on equity securities |  | 843 |  | - |
| Basis difference in acquired assets |  | 622 |  | 1,676 |
| Tax credits carried forward |  | 9,473 |  | 9,278 |
| Net operating loss carried forward |  | 17,163 |  | 18,375 |
| Other, net. |  | 4,095 |  | 4,291 |
| Gross deferred tax assets |  | 89,591 |  | 87,771 |
| Deferred Tax Liabilities |  |  |  |  |
| Deferred loan costs. |  | $(8,839)$ |  | $(7,655)$ |
| Dividends on Federal Home Loan Bank common stock |  | (956) |  | $(1,021)$ |
| Other, net.. |  | $(4,008)$ |  | $(3,758)$ |
| Gross deferred tax liabilities. |  | $(13,803)$ |  | $(12,434)$ |
| Net deferred tax assets. | \$ | 75,788 | \$ | $\underline{75,337}$ |

Amounts for the current year are based upon estimates and assumptions and could vary from amounts shown on the tax returns as filed.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

As of December 31, 2018. The Company's gross NOL carryovers, all of which are subject to limitation under Section 382 of the Internal Revenue Code, totaled approximately $\$ 53.6$ million for which a deferred tax asset of $\$ 11.2$ million has been recorded reflecting the expected benefit of these Federal NOL carryovers. At December 31, 2018, the Company has California NOL carryovers of $\$ 63.1$ million for which a California deferred tax asset of $\$ 6.9$ million has been recorded reflecting the expected benefit of these California NOL carryovers. The annual IRC Section 382 limitation is $\$ 10.1$ million per year until 2021 and decreases to $\$ 8.8$ million in 2022 and to $\$ 7.2$ million per year thereafter. If not utilized, a portion of the Company's federal and state NOL's will begin to expire in 2030. At December 31, 2018, the Company's federal tax credit carryovers and AMT tax credit carryovers total $\$ 7.7$ million and $\$ 1.1$ million, respectively. If not utilized, the federal tax credit carryovers will begin in expire in 2028. The AMT tax credit carryovers can be carried forward indefinitely. In management's opinion, it is more-likely-than not that the results of future operations will generate sufficient taxable income to utilize all of the deferred tax benefits related to those NOL and tax credit carryovers.

In assessing the realization of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent on the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the projected future taxable income and tax planning strategies in making this assessment. Based upon the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are deductible, management believes it is more likely than not the Company will realize all benefits related to these deductible temporary differences.

The Company had income tax refunds receivables of $\$ 9.0$ million at December 31, 2018, and $\$ 7.2$ million at December 31, 2017. These income tax receivables are included in other assets in the accompanying Consolidated Balance Sheets.

On December 22, 2017, the Tax Cuts and Jobs Act, was enacted into law and as a result, during the fourth quarter of 2017, the Company recorded $\$ 23.4$ million of additional income tax expense related to the revaluation of the Company's deferred tax assets and a $\$ 2.6$ million pretax write-down of low-income housing tax credit investments.

The Company's tax returns are open for audits by the Internal Revenue Service back to 2015 and by the California Franchise Tax Board back to 2014. It is reasonably possible that unrecognized tax benefits could change significantly over the next twelve months. The Company does not expect that any such changes would have a material impact on its annual effective tax rate.

Income tax expense results in effective tax rates that differ from the statutory Federal income tax rate for the years indicated as follows:

|  | Year Ended December 31, |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  |  | 2017 |  |  | 2016 |  |
|  | (Dollars in thousands) |  |  |  |  |  |  |  |
| Tax provision at Federal statutory rate.. | \$ | 70,914 | 21.0\% | \$ 104,407 | 35.0\% \$ |  | 84,770 | 35.0\% |
| State income taxes, net of Federal income tax benefit $\qquad$ |  | 29,750 | 8.8 | 20,616 | 6.9 |  | 17,250 | 7.1 |
| Deferred taxes write-down due to Tax Cuts and Jobs Act $\qquad$ |  | , | - | 23,365 | 7.8 |  | - | - |
| Excess deduction for stock option and RSUs.... |  | (555) | (0.2) | $(3,146)$ | (1.0) |  | - | - |
| Non-taxable bargain purchase gain ................. |  | (71) | - | $(1,970)$ | (0.7) |  | - | - |
| Low income housing and other tax credits........ |  | $(34,517)$ | (10.2) | $(20,656)$ | (6.9) |  | $(37,901)$ | (15.6) |
| Non-deductible stock options expense ............. |  | - | - | - | - |  | 3,469 | 1.4 |
| Other, net.................................................... |  | 281 | 0.1 | (351) | (0.1) |  | (487) | (0.2) |
| Total income tax expense | \$ | 65,802 | 19.5 $\%$ | \$122,265 | 41.0 $\%$ | \$ | $\underline{67,101}$ | 27.7\% |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 12. Stockholders' Equity and Earnings per Share

As a bank holding company, the Bancorp's ability to pay dividends will depend upon the dividends it receives from the Bank and on the income it may generate from any other activities in which it may engage, either directly or through other subsidiaries.

Under California banking law, the Bank may not, without regulatory approval, pay a cash dividend that exceeds the lesser of the Bank's retained earnings or its net income for the last three fiscal years, less any cash distributions made during that period. Under this regulation, the amount of retained earnings available for cash dividends to the Company immediately after December 31, 2018, is restricted to approximately $\$ 189.0$ million.

Activity in accumulated other comprehensive income, net of tax, and reclassification out of accumulated other comprehensive income for the years ended December 31, 2018, and 2017 was as follows:

(1) These amounts were recorded as of January 1, 2018 as a result of the adoption of ASU 2018-2.
(2) This amount was recorded as of January 1, 2018 as a result of the adoption of ASU 2016-1.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The Board of Directors of the Bancorp is authorized to issue preferred stock in one or more series and to fix the voting powers, designations, preferences or other rights of the shares of each such class or series and the qualifications, limitations, and restrictions thereon. Any preferred stock issued by the Bancorp may rank prior to the Bancorp common stock as to dividend rights, liquidation preferences, or both, may have full or limited voting rights, and may be convertible into shares of the Bancorp common stock.

The following is the reconciliation of the numerators and denominators of the basic and diluted earnings per share computations for the years as indicated:


## 13. Commitments and Contingencies

Litigation. The Company is involved in various claims and legal proceedings that arise in the course of conducting the Company's business.. The outcome of such claims and legal proceedings are inherently difficult to predict. Management, after consultation with legal counsel and based upon information currently available to the Company, believes that any liability resulting from the resolution of such claims and proceedings will not have a material effect upon the Company's consolidated financial condition, results of operations, or liquidity taken as a whole.

Lending. In the normal course of business, the Company becomes a party to financial instruments with off-balance sheet risk to meet the financing needs of its customers. These financial instruments include commitments to extend credit in the form of loans or through commercial or standby letters of credit and financial guarantees. Those instruments represent varying degrees of exposure to risk in excess of the amounts included in the accompanying Consolidated Balance Sheets. The contractual or notional amount of these instruments indicates a level of activity associated with a particular class of financial instrument and is not a reflection of the level of expected losses, if any.

The Company's exposure to credit loss in the event of non-performance by the other party to the financial instrument for commitments to extend credit is represented by the contractual amount of those instruments. The Company uses the same credit policies in making commitments and conditional obligations as it does for on-balance sheet instruments. Unless noted otherwise, the Company does not require collateral or other security to support financial instruments with credit risk.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Financial instruments for which contract amounts represent the amount of credit risk include the following:

|  | As of December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
|  |  | (In tho | sa |  |
| Commitments to extend credit. | \$ | 2,691,579 | \$ | 2,366,368 |
| Standby letters of credit |  | 245,087 |  | 140,814 |
| Commercial letters of credit. |  | 35,759 |  | 27,353 |
| Bill of lading guarantees. |  | 730 |  | 24 |
| Total. | \$ | 2,973,155 | \$ | 2,534,559 |

Commitments to extend credit are agreements to lend to a customer provided there is no violation of any condition established in the commitment agreement. These commitments generally have fixed expiration dates and are expected to expire without being drawn upon. The total commitment amounts do not necessarily represent future cash requirements. The Company evaluates each customer's creditworthiness on a case-by-case basis. The amount of collateral obtained if deemed necessary by the Company upon extension of credit is based on management's credit evaluation of the borrowers.

As of December 31, 2018, the Company does not have fixed-rate or variable-rate commitments with characteristics similar to options, which provide the holder, for a premium paid at inception to the Company, the benefits of favorable movements in the price of an underlying asset or index with limited or no exposure to losses from unfavorable price movements.

As of December 31, 2018, commitments to extend credit of $\$ 2.7$ billion include commitments to fund fixed rate loans of $\$ 200.4$ million and adjustable rate loans of $\$ 2.5$ billion.

Commercial letters of credit and bill of lading guarantees are issued to facilitate domestic and foreign trade transactions while standby letters of credit are issued to make payments on behalf of customers if certain specified future events occur. The credit risk involved in issuing letters of credit and bill of lading guarantees is essentially the same as that involved in making loans to customers.

Leases. The Company is obligated under a number of operating leases for premises and equipment with terms ranging from one to 10.5 years, many of which provide for periodic adjustment of rentals based on changes in various economic indicators. Rental expense was $\$ 12.1$ million for $2018, \$ 12.0$ million for 2017 , and $\$ 10.2$ million for 2016. The following table shows future minimum payments under operating leases with terms in excess of one year as of December 31, 2018.

| Year Ending December 31, |
| :--- | :--- |

Rental income was $\$ 0.4$ million for 2018, $\$ 0.4$ million for 2017 , and $\$ 0.4$ million for 2016 . The following table shows future rental payments to be received under operating leases with terms in excess of one year as of December 31, 2018:

| Year Ending December 31, | Commitments |  |
| :---: | :---: | :---: |
|  | (In thousands) |  |
| 2019 | \$ | 214 |
| 2020 |  | 120 |
| 2021 |  | 79 |
| 2022 |  | 25 |
| Total minimum lease paym | \$ | 438 |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 14. Financial Derivatives

The Company does not speculate on the future direction of interest rates. However, the Company enters into financial derivatives in order to seek mitigation of exposure to interest rate risks related to its interest-earning assets and interestbearing liabilities. These transactions, when properly structured and managed, may provide a hedge against inherent interest rate risk in assets or liabilities and against risk in specific transactions of the Company. In such instances, the Company may protect its position through the purchase or sale of interest rate futures contracts for a specific cash or interest rate risk position. Other hedging transactions may be implemented using interest rate swaps, interest rate caps, floors, financial futures, forward rate agreements, and options on futures or bonds. Prior to considering any hedging activities, the Company seeks to analyze the costs and benefits of the hedge in comparison to other viable alternative strategies. All hedges will require an assessment of basis risk and must be approved by the Bancorp or the Bank's Investment Committee.

The Company follows ASC Topic 815 that establishes accounting and reporting standards for financial derivatives, including certain financial derivatives embedded in other contracts, and hedging activities. It requires the recognition of all financial derivatives as assets or liabilities in the Company's consolidated balance sheet and measurement of those financial derivatives at fair value. The accounting treatment of changes in fair value is dependent upon whether or not a financial derivative is designated as a hedge and, if so, the type of hedge. Fair value is determined using third-party models with observable market data. For derivatives designated as cash flow hedges, changes in fair value are recognized in other comprehensive income and are reclassified to earnings when the hedged transaction is reflected in earnings. For derivatives designated as fair value hedges, changes in the fair value of the derivatives are reflected in current earnings, together with changes in the fair value of the related hedged item if there is a highly effective correlation between changes in the fair value of the interest rate swaps and changes in the fair value of the underlying asset or liability that is intended to be hedged. If there is not a highly effective correlation between changes in the fair value of the interest rate swap and changes in the fair value of the underlying asset or liability that is intended to be hedged, then only the changes in the fair value of the interest rate swaps are reflected in the Company's consolidated financial statements.

In May 2014, the Bancorp entered into five interest rate swap contracts in the notional amount of $\$ 119.1$ million for a period of ten years. The objective of these interest rate swap contracts, which were designated as hedging instruments in cash flow hedges, was to hedge the quarterly interest payments on the Bancorp's $\$ 119.1$ million of Junior Subordinated Debentures that had been issued to five trusts, throughout the ten-year period beginning in June 2014 and ending in June 2024, from the risk of variability of these payments resulting from changes in the three-month LIBOR interest rate. The Bancorp pays a weighted average fixed interest rate of $2.61 \%$ and receives a variable interest rate of the three-month LIBOR at a weighted average rate of $2.78 \%$. As of December 31, 2018, the notional amount of cash flow interest rate swaps was $\$ 119.1$ million and their unrealized loss of $\$ 241,000$, net of taxes, was included in other comprehensive income compared to unrealized loss of $\$ 1.5$ million at December 31, 2017. For the year ended December 31, 2018, the periodic net settlement of interest rate swaps included in interest expense was $\$ 539,000$ compared to $\$ 1.7$ million in 2017. As of December 31, 2018, and 2017, the ineffective portion of these interest rates swaps was not significant.

As of December 31, 2018, the Bank's outstanding interest rate swap contracts had a notional amount of $\$ 613.4$ million for various terms from two to ten years. The Bank entered into these interest rate swap contracts that are matched to individual fixed-rate commercial real estate loans in the Bank's loan portfolio. These contracts have been designated as hedging instruments to hedge the risk of changes in the fair value of the underlying commercial real estate loans due to changes in interest rates. The swap contracts are structured so that the notional amounts reduce over time to match the contractual amortization of the underlying loan and allow prepayments with the same pre-payment penalty amounts as the related loan. The Bank pays a weighted average fixed rate of $4.72 \%$ and receives a variable rate at the one-month LIBOR rate plus a weighted average spread of 265 basis points, or at a weighted average rate of $5.07 \%$. As of December 31, 2018, and 2017, the notional amount of fair value interest rate swaps was $\$ 613.4$ million and $\$ 540.4$ million with unrealized gains of $\$ 6.6$ million and $\$ 5.0$ million, respectively, were included in other non-interest income. The amount of periodic net settlement of interest rate swaps increased interest income by $\$ 256,000$ in 2018 compared to a decrease in interest income of $\$ 2.4$ million in 2017. As of December 31, 2018, and 2017, the ineffective portion of these interest rate swaps was not significant.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Interest rate swap contracts involve the risk of dealing with institutional derivative counterparties and their ability to meet contractual terms. Institutional counterparties must have a strong credit profile and be approved by the Company's Board of Directors. The Company's credit exposure on interest rate swaps is limited to the net favorable value and interest payments of all swaps by each counterparty. Credit exposure may be reduced by the amount of collateral pledged by the counterparty. The Bancorp's interest rate swaps have been assigned by the counterparties to a derivatives clearing organization and daily margin is indirectly maintained with the derivatives clearing organization. Cash posted as collateral by the Bancorp related to derivative contracts totaled $\$ 1.8$ million as of December 31, 2018 and $\$ 4.5$ million as of December 31, 2017.

The Company enters into foreign exchange forward contracts with various counterparties to mitigate the risk of fluctuations in foreign currency exchange rates for foreign exchange certificates of deposit or foreign exchange contracts entered into with our clients. These contracts are not designated as hedging instruments and are recorded at fair value in our Consolidated Balance Sheet. Changes in the fair value of these contracts as well as the related foreign exchange certificates of deposit and foreign exchange contracts are recognized immediately in net income as a component of non-interest income. Period end gross positive fair values are recorded in other assets and gross negative fair values are recorded in other liabilities. At December 31, 2018, the notional amount of option contracts totaled $\$ 1.2$ million with a net negative fair value of $\$ 6,000$. At December 31, 2018, spot, forward, and swap contracts in the total notional amount of $\$ 86.9$ million had a positive fair value of $\$ 397,000$. Spot, forward, and swap contracts in the total notional amount of $\$ 95.0$ million had a negative fair value of $\$ 1.8$ million at December 31, 2018. At December 31, 2017, the notional amount of option contracts totaled $\$ 1.0$ million with a net negative fair value of $\$ 9,000$. At December 31, 2017, spot, forward, and swap contracts in the total notional amount of $\$ 108.5$ million had a positive fair value of $\$ 1.8$ million. Spot, forward, and swap contracts in the total notional amount of $\$ 32.1$ million had a negative fair value of $\$ 453,000$ at December 31, 2017.

## 15. Fair Value Measurements

The Company adopted ASC Topic 820 on January 1, 2008, and determined the fair values of our financial instruments based on the following:

- Level 1 - Quoted prices in active markets for identical assets or liabilities.
- Level 2 - Observable prices in active markets for similar assets or liabilities; prices for identical or similar assets or liabilities in markets that are not active; directly observable market inputs for substantially the full term of the asset and liability; market inputs that are not directly observable but are derived from or corroborated by observable market data.
- Level 3 - Unobservable inputs based on the Company's own judgments about the assumptions that a market participant would use.


## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The Company uses the following methodologies to measure the fair value of its financial assets and liabilities on a recurring basis:

Securities Available for Sale and Equity Securities. For certain actively traded agency preferred stocks, mutual funds, U.S. Treasury securities, and other equity securities, the Company measures the fair value based on quoted market prices in active exchange markets at the reporting date, a Level 1 measurement. The Company also measures securities by using quoted market prices for similar securities or dealer quotes, a Level 2 measurement. This category generally includes U.S. Government agency securities, state and municipal securities, mortgage-backed securities ("MBS"), commercial MBS, collateralized mortgage obligations, asset-backed securities, corporate bonds and trust preferred securities.

Warrants. The Company measures the fair value of warrants based on unobservable inputs based on assumption and management judgment, a Level 3 measurement.

Currency Option Contracts and Foreign Exchange Contracts. The Company measures the fair value of currency option and foreign exchange contracts based on observable market rates on a recurring basis, a Level 2 measurement.

Interest Rate Swaps. The Company measures the fair value of interest rate swaps using third party models with observable market data, a Level 2 measurement.

## Assets measured at estimated fair value on a non-recurring basis:

Certain assets or liabilities are required to be measured at estimated fair value on a nonrecurring basis subsequent to initial recognition. Generally, these adjustments are the result of lower-of-cost-or-fair value or other impairment write-downs of individual assets. In determining the estimated fair values during the period, the Company determined that substantially all the changes in estimated fair value were due to declines in market conditions versus instrument specific credit risk. For the year ended December 31, 2018 and December 31, 2017, there were no material adjustments to fair value for the Company's assets and liabilities measured at fair value on a nonrecurring basis in accordance with GAAP.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The following tables present the Company's hierarchy for its assets and liabilities measured at fair value on a recurring basis at December 31, 2018, and at December 31, 2017:

## As of December 31, 2018

| Fair Value Measurements Using |  |  |
| :--- | :--- | :--- |
| Level 1 | Level 2 $\quad$ Level 3 | Total at <br> Fair Value |
|  |  |  |

## Assets

Securities available-for-sale

| U.S. Treasury securities | \$ | 124,751 | \$ | - | \$ | - | \$ | 124,751 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. government agency entities |  | - |  | 5,871 |  | - |  | 5,871 |
| U.S. government sponsored entities. |  | - |  | 388,363 |  | - |  | 388,363 |
| Mortgage-backed securities |  | - |  | 656,744 |  | - |  | 656,744 |
| Collateralized mortgage obligations |  | - |  | 977 |  | - |  | 977 |
| Corporate debt securities |  | - |  | 65,803 |  | - |  | 65,803 |
| Total securities available-for-sale. |  | 124,751 |  | 1,117,758 |  | - |  | 1,242,509 |

Equity securities

| Mutual funds.......................................................................... | 6,094 |  |  | - |  | - | 6,094 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Preferred stock of government sponsored entities .................. |  | 7,822 |  | - |  | - |  | 7,822 |
| Other equity securities |  | 11,182 |  | - |  | - |  | 11,182 |
| Total equity securities |  | 25,098 |  | - |  | - |  | 25,098 |
| Warrants |  | - |  | - |  | 184 |  | 184 |
| Interest rate swaps |  | - |  | 7,810 |  | - |  | 7,810 |
| Foreign exchange contracts. |  | - |  | 397 |  | - |  | 397 |
| Total assets. | \$ | 149,849 | \$ | 1,125,965 | \$ | 184 | \$ | 1,275,998 |

## Liabilities

| Option contracts |  | \$ | - | \$ | 6 | \$ | - | \$ | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest rate swaps |  |  | - |  | 1,543 |  | - |  | 1,543 |
| Foreign exchange contracts |  |  | - |  | 1,763 |  | - |  | 1,763 |
| Total liabilities |  | \$ | - | \$ | 3,312 | \$ |  | \$ | 3,312 |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## As of December 31, 2017

| Fair Value Measurements Using |  |  |
| :--- | :--- | :--- |
| Level 1 | Level 2 $\quad$ Level 3 |  | | Total at |
| :---: |
| Fair Value |

## Assets

| Securities available-for-sale |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasury securities . | \$ | 249,520 | \$ | - | \$ | - \$ |  | 249,520 |
| U.S. government agency entities |  | - | 8,988 |  |  | - |  | 8,988 |
| U.S. government sponsored entities. |  | - |  | 390,336 |  | - |  | 390,336 |
| State and municipal securities. |  | - |  | 1,914 |  | - |  | 1,914 |
| Mortgage-backed securities |  | - |  | 571,969 |  | - |  | 571,969 |
| Collateralized mortgage obligations |  | - |  | 1,516 |  | - |  | 1,516 |
| Corporate debt securities |  | - |  | 81,281 |  | - |  | 81,281 |
| Mutual funds. |  | 6,230 |  | - |  | - |  | 6,230 |
| Preferred stock of government sponsored entities |  | 10,102 |  | - |  | - |  | 10,102 |
| Other equity securities |  | 11,770 |  | - |  | - |  | 11,770 |
| Total securities available-for-sale. |  | 277,622 |  | 1,056,004 |  | - |  | 1,333,626 |
| Warrants |  | - |  | - |  | 91 |  | 91 |
| Interest rate swaps . |  | - |  | 5,218 |  | - |  | 5,218 |
| Foreign exchange contracts. |  | - |  | 1,832 |  | - |  | 1,832 |
| Total assets. | \$ | 277,622 | \$ | 1,063,054 | \$ | 91 | \$ | 1,340,767 |

## Liabilities

| Option contracts |  | \$ | - | \$ | 9 | \$ |  | \$ | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest rate swaps |  |  | - |  | 2,699 |  | - |  | 2,699 |
| Foreign exchange contracts |  |  | - |  | 453 |  | - |  | 453 |
| Total liabilities. |  | \$ | - | \$ | 3,161 | \$ | - | \$ | 3,161 |

For financial assets measured at fair value on a nonrecurring basis that were still reflected in the balance sheet at December 31, 2018 and 2017, the following tables provide the level of valuation assumptions used to determine each adjustment and the carrying value of the related individual assets at December 31, 2018, and at December 31, 2017, and the total losses for the periods indicated:

(1) Other real estate owned balance of $\$ 12.7$ million in the Consolidated Balance Sheets is net of estimated disposal costs.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)


(1) Other real estate owned balance of $\$ 9.4$ million in the Consolidated Balance Sheets is net of estimated disposal costs.

The significant unobservable (Level 3) inputs used in the fair value measurement of collateral for collateral-dependent impaired loans was primarily based on the appraised value of collateral adjusted by estimated sales cost and commissions. The Company generally obtains new appraisal reports every six months. As the Company's primary objective in the event of default would be to monetize the collateral to settle the outstanding balance of the loan, less marketable collateral would receive a larger discount. During the reported periods, collateral discounts ranged from $55 \%$ in the case of accounts receivable collateral to $65 \%$ in the case of inventory collateral.

The significant unobservable inputs used in the fair value measurement of other real estate owned ("OREO") was primarily based on the appraised value of OREO adjusted by estimated sales cost and commissions.

The Company applies estimated sales cost and commission ranging from $3 \%$ to $6 \%$ of collateral value of impaired loans, quoted price or loan sale price of loans held for sale, and appraised value of OREOs.

The significant unobservable inputs in the Black-Scholes option pricing model for the fair value of warrants are the expected life of warrant ranging from 1 to 6 years, risk-free interest rate from $2.69 \%$ to $3.00 \%$, and stock volatility of the Company from $13.01 \%$ to $18.04 \%$.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 16. Fair Value of Financial Instruments

The following methods and assumptions were used to estimate the fair value of each class of financial instruments.
Cash and Cash Equivalents. For cash and cash equivalents, the carrying amount was assumed to be a reasonable estimate of fair value, a Level 1 measurement.

Short-term Investments. For short-term investments, the carrying amount was assumed to be a reasonable estimate of fair value, a Level 1 measurement.

Securities. For securities, including securities held-to-maturity, available-for-sale and for trading, fair values were based on quoted market prices at the reporting date. If a quoted market price was not available, fair value was estimated using quoted market prices for similar securities or dealer quotes. For certain actively traded agency preferred stocks, U.S. Treasury securities, and other equity securities, the Company measures the fair value based on quoted market prices in active exchange markets at the reporting date, a Level 1 measurement. The Company also measures securities by using quoted market prices for similar securities or dealer quotes, a Level 2 measurement. This category generally includes U.S. Government agency securities, state and municipal securities, mortgage-backed securities ("MBS"), commercial MBS, collateralized mortgage obligations, asset-backed securities, and corporate bonds.

Loans held for sale. The Company records loans held for sale at fair value based on quoted price from third party sources, or appraisal reports adjusted by sales commission assumption, a Level 3 measurement.

Loans. Fair values were estimated for portfolios of loans with similar financial characteristics. Each loan category was further segmented into fixed and adjustable rate interest terms and by performing and non-performing categories.

The fair value of performing loans was calculated by discounting scheduled cash flows through the estimated maturity using estimated market discount rates that reflect the credit and interest rate risk inherent in the loan, a Level 3 measurement.

The fair value of impaired loans was calculated based on the net realizable fair value of the collateral or the observable market price of the most recent sale or quoted price from loans held for sale. The Company does not record loans at fair value on a recurring basis. Nonrecurring fair value adjustments to collateral dependent impaired loans are recorded based on the current appraised value of the collateral, a Level 2 measurement, or management's judgment and estimation of value reported on old appraisals which are then adjusted based on recent market trends, a Level 3 measurement.

FHLB Stock. These securities can only be redeemed or sold at their par value and only to the respective issuing government-supported institution or to another member institution. Management considers these non-marketable equity securities to be long-term investments. Accordingly, when evaluating these securities for impairment, management considers the ultimate recoverability of the par value rather than recognizing temporary declines in value.

Deposit Liabilities. The fair value of demand deposits, savings accounts, and certain money market deposits was assumed to be the amount payable on demand at the reporting date. The fair value of fixed-maturity certificates of deposit was estimated using the rates currently offered for deposits with similar remaining maturities, a Level 3 measurement.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Securities Sold under Agreements to Repurchase. The fair value of securities sold under agreements to repurchase is based on dealer quotes, a Level 2 measurement.

Advances from Federal Home Loan Bank. The fair value of the advances is based on quotes from the FHLB to settle the advances, a Level 2 measurement.

Other Borrowings. This category includes borrowings from other financial institutions. The fair value of other borrowings is calculated by discounting scheduled cash flows through the estimated maturity using estimated market discount rates that reflect the credit and interest rate risk, a Level 3 measurement.

Long-term Debt. The fair value of long-term debt is estimated based on the quoted market prices or dealer quotes, a Level 2 measurement.

Currency Option and Foreign Exchange Contracts. The Company measures the fair value of currency option and foreign exchange contracts based on observable market rates, a Level 2 measurement.

Interest Rate Swaps. Fair value of interest rate swaps is derived from third party models with observable market data, a Level 2 measurement.

Off-Balance-Sheet Financial Instruments. The fair value of commitments to extend credit, standby letters of credit, and financial guarantees written were estimated using the fees currently charged to enter into similar agreements, taking into account the remaining terms of the agreements and the present creditworthiness of the counter parties. The fair value of guarantees and letters of credit was based on fees currently charged for similar agreements or on the estimated cost to terminate them or otherwise settle the obligations with the counter parties at the reporting date. Off-balance-sheet financial instruments were valued based on the assumptions that a market participant would use, a Level 3 measurement.

Fair value was estimated in accordance with ASC Topic 825. Fair value estimates were made at specific points in time, based on relevant market information and information about the financial instrument. Because no market exists for a significant portion of the Bank's financial instruments, fair value estimates were based on judgments regarding future expected loss experience, current economic conditions, risk characteristics of various financial instruments, and other factors. These estimates were subjective in nature and involved uncertainties and matters of significant judgment and therefore cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## Fair Value of Financial Instruments

|  | December 31, 2018 |  | December 31, 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Carrying Amount | Fair Value | Carrying Amount | Fair Value |
|  | (In thousands) |  |  |  |
| Financial Assets |  |  |  |  |
| Cash and due from banks. | \$ 225,333 | \$ 225,333 | \$ 247,056 | \$ 247,056 |
| Short-term investments | 374,957 | 374,957 | 292,745 | 292,745 |
| Securities available-for-sale. | 1,242,509 | 1,242,509 | 1,333,626 | 1,333,626 |
| Loans held for sale | - | - | 8,000 | 8,000 |
| Loans, net ${ }^{(1)}$. | 13,871,832 | 13,928,162 | 12,743,766 | 12,663,049 |
| Equity securities. | 25,098 | 25,098 | - | - |
| Investment in Federal Home Loan Bank stock. | 17,250 | 17,250 | 23,085 | 23,085 |
| Warrants.......................................................................... | 184 | 184 | 91 | 91 |
|  | Notional Amount | Fair Value | Notional Amount | Fair Value |
| Foreign exchange contracts | \$ 86,875 | \$ 397 | \$ 108,530 | \$ 1,832 |
| Interest rate swaps............................................................. | 467,410 | 7,810 | 514,159 | 5,218 |
| Financial Liabilities | Carrying Amount | Fair Value | Carrying Amount | Fair Value |
| Deposits ......................................................................... | \$13,702,340 | \$13,754,028 | \$12,689,893 | \$12,700,674 |
| Securities sold under agreements to repurchase...................... | - | - | 100,000 | 100,163 |
| Advances from Federal Home Loan Bank............................. | 530,000 | 529,500 | 430,000 | 429,482 |
| Other borrowings | 35,756 | 34,031 | 52,885 | 51,075 |
| Long-term debt | 189,448 | 132,615 | 194,136 | 141,865 |
|  | Notional Amount | Fair Value | Notional Amount | Fair Value |
| Option contracts............................................................... | \$ 1,215 | \$ 6 | \$ 1,014 | \$ 9 |
| Foreign exchange contracts .............................................. | 94,977 | 1,763 | 32,127 | 453 |
| Interest rate swaps........................................................... | 265,166 | 1,543 | 145,399 | 2,699 |
|  | Notional Amount | Fair Value | Notional Amount | Fair Value |
| Off-Balance Sheet Financial Instruments |  |  |  |  |
| Commitments to extend credit............................................. | \$ 2,691,579 | \$ $(8,843)$ | \$ 2,366,368 | \$ $(7,224)$ |
| Standby letters of credit ..................................................... | 245,087 | $(2,662)$ | 140,814 | $(1,805)$ |
| Other letters of credit ......................................................... | 35,759 | (30) | 27,353 | (52) |
| Bill of lading guarantees ....................................................... | 730 | - | 24 | (0) |

(1) In accordance with the prospective adoption of ASU 2016-01, the fair value of loans as of December 31, 2018 was measured using an exit price notion. The fair value of loans as of December 31, 2017 was measured using an entry price notion.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The following tables present the level in the fair value hierarchy for the estimated fair values of only financial instruments that are not already on the Consolidated Balance Sheets at fair value at December 31, 2018, and December 31, 2017.

As of December 31, 2018

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimated <br> Fair Value <br> Measurements |  | Level 1 | Level 2 | Level 3 |
|  |  | (In thousands) |  |  |  |
| Financial Assets |  |  |  |  |  |
| Cash and due from banks. | \$ 225,333 | \$ | 225,333 | \$ | \$ |
| Short-term investments ............................................... | 374,957 |  | 374,957 | - | - |
| Securities available-for-sale. | 1,242,509 |  | 124,751 | 1,117,758 | - |
| Loans, net ${ }^{(1)}$.............................................................. | 13,928,162 |  | - | - | 13,928,162 |
| Equity securities. | 25,098 |  | 25,098 | - | - |
| Investment in Federal Home Loan Bank stock................ | 17,250 |  | - | 17,250 | - |
| Warrants................................................................... | 184 |  | - | - | 184 |
| Financial Liabilities |  |  |  |  |  |
| Deposits ................................................................... | 13,754,028 |  | - | - | 13,754,028 |
| Advances from Federal Home Loan Bank...................... | 529,500 |  | - | 529,500 | - |
| Other borrowings ........................................................ | 34,031 |  | - | - | 34,031 |
| Long-term debt .......................................................... | 132,615 |  | - | 132,615 | - |


|  | As of December 31, 2017 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimated Fair Value Measurements | Level 1 |  | Level 2 | Level 3 |
|  | (In thousands) |  |  |  |  |
| Financial Assets |  |  |  |  |  |
| Cash and due from banks. | \$ 247,056 | \$ | 247,056 | \$ | \$ |
| Short-term investments. | 292,745 |  | 292,745 | - | - |
| Securities available-for-sale | 1,333,626 |  | 277,622 | 1,056,004 | - |
| Loans held-for-sale | 8,000 |  | - | - | 8,000 |
| Loans, net ${ }^{(1)}$.............................................................. | 12,663,049 |  | - | - | 12,663,049 |
| Investment in Federal Home Loan Bank stock................ | 23,085 |  | - | 23,085 | - |
| Warrants.. | 91 |  | - | - | 91 |
| Financial Liabilities |  |  |  |  |  |
| Deposits ................................................................... | 12,700,674 |  | - | - | 12,700,674 |
| Securities sold under agreement to repurchase ................ | 100,163 |  | - | 100,163 | - |
| Advances from Federal Home Loan Bank...................... | 429,482 |  | - | 429,482 | - |
| Other borrowings | 51,075 |  | - | - | 51,075 |
| Long-term debt ........................................................ | 141,865 |  | - | 141,865 |  |

(1) In accordance with the prospective adoption of ASU 2016-01, the fair value of loans as of December 31, 2018 was measured using an exit price notion. The fair value of loans as of December 31, 2017 was measured using an entry price notion.

## 17. Revenue from Contracts with Customers

On January 1, 2018, the Company adopted ASU 2014-09, Revenue from Contracts with Customers - Topic 606 and all subsequent ASUs that modified ASC 606, Revenue from Contracts with Customers. The Company adopted ASC 606 using the modified retrospective method applied to those contracts that were not completed as of January 1, 2018. The new standard did not materially impact the timing or measurement of the Company's revenue recognition as it is consistent with the Company's existing accounting for contracts within the scope of the new standard. There was no cumulative effect adjustment to retained earnings as a result of adopting this new standard.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The following is a summary of revenue from contracts with customers that are in-scope and not in-scope under ASC 606:

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  |
|  | (In thousands) |  |  |  |  |  |
| Non-interest income, in-scope ${ }^{(1)}$ : |  |  |  |  |  |  |
| Fees and service charges on deposit accounts | \$ | 8,387 | \$ | 9,173 | \$ | 9,082 |
| Wealth management fees. |  | 5,905 |  | 3,065 |  | 3,590 |
| Other service fees ${ }^{(2)}$ |  | 13,693 |  | 13,411 |  | 12,814 |
| Total in-scope noninterest income ............................................ |  | 27,985 |  | 25,649 |  | 25,486 |
| Noninterest income, not in-scope ${ }^{(3)}$........................................... |  | 3,722 |  | 10,648 |  | 7,884 |
| Total noninterest income | \$ | 31,707 | \$ | 36,297 | \$ | 33,370 |

(1) There were no adjustments to the Company's financial statements recorded as a result of the adoption of ASC 606. For comparability, the Company has adjusted consolidated prior period amounts to conform to the periods presentation.
(2) Other service fees comprise of fees related to letters of credit, wire fees, fees on foreign exchange transactions and other immaterial individual revenue streams.
(3) These amounts primarily represent revenue from contracts with customers that are out of the scope of ASC 606.

The major revenue streams by fee type that are within the scope of ASC 606 presented in the above tables are described in additional detail below:

## Fees and Services Charges on Deposit Accounts

Fees and service charges on deposit accounts include charges for analysis, overdraft, cash checking, ATM, and safe deposit activities executed by our deposit clients, as well as interchange income earned through card payment networks for the acceptance of card based transactions. Fees earned from our deposit clients are governed by contracts that provide for overall custody and access to deposited funds and other related services and can be terminated at will by either party. Fees received from deposit clients for the various deposit activities are recognized as revenue once the performance obligations are met. The adoption of ASU 2014-09 had no impact to the recognition of fees and service charges on deposit accounts.

## Wealth Management Fees

The Company employs financial consultants to provide investment planning services for customers including wealth management services, asset allocation strategies, portfolio analysis and monitoring, investment strategies, and risk management strategies. The fees the Company earns are variable and are generally received monthly. The Company recognizes revenue for the services performed at quarter end based on actual transaction details received from the broker dealer the Company engages.

## Practical Expedients and Exemptions

The Company applies the practical expedient in ASC 606-10-50-14 and does not disclose the value of unsatisfied performance obligations as the Company's contracts with customers generally have a term that is less than one year, are openended with a cancellation period that is less than one year, or allow the Company to recognize revenue in the amount to which the Company has the right to invoice.

In addition, given the short term nature of the Company's contracts, the Company also applies the practical expedient in ASC 606-10-32-18 and does not adjust the consideration from customers for the effects of a significant financing component, if at contract inception, the period between when the entity transfers the goods or services and when the customer pays for that good or service is one year or less.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 18. Employee Benefit Plans

Employee Stock Ownership Plan. Under the Company's Amended and Restated Cathay Bank Employee Stock Ownership Plan ("ESOP"), the Company can make annual contributions to a trust in the form of either cash or common stock of the Bancorp for the benefit of eligible employees. Employees are eligible to participate in the ESOP after completing two years of service for salaried full-time employees or 1,000 hours for each of two consecutive years for salaried part-time employees. The amount of the annual contribution is discretionary except that it must be sufficient to enable the trust to meet its current obligations. The Company also pays for the administration of this plan and of the trust. The Company has not made contributions to the trust since 2004 and does not expect to make any contributions in the future. Effective June 17, 2004, the ESOP was amended to provide the participants the election either to reinvest the dividends on the Company stock allocated to their accounts or to have these dividends distributed to the participant. The ESOP trust purchased 17,559 shares in $2018,16,458$ shares in 2017 , and 19,377 shares in 2016, of the Bancorp's common stock at an aggregate cost of $\$ 706,000$ in 2018, $\$ 646,000$ in 2017, and $\$ 600,000$ in 2016. The distribution of benefits to participants totaled 58,988 shares in 2018, 57,014 shares in 2017, and 103,367 shares in 2016. As of December 31, 2018, the ESOP owned 794,759 shares, or $1.0 \%$, of the Company's outstanding common stock.

401(k) Plan. In 1997, the Board approved the Company's 401(k) Profit Sharing Plan, which began on March 1, 1997. Salaried employees who have completed three months of service and have attained the age of 21 are eligible to participate. Enrollment dates are on the first of each month. Participants may contribute up to $75 \%$ of their eligible compensation for the year but not to exceed the dollar limit set by the Internal Revenue Code. Participants may change their contribution election on the enrollment dates. The vesting schedule for the matching contribution is $0 \%$ for less than two years of service, $25 \%$ after two years of service and from then on, at an increment of $25 \%$ each year until $100 \%$ is vested after five years of service. Effective on June 1, 2018, the Company matches $100 \%$ on the first $5.0 \%$ of eligible compensation contributed per pay period by the participant, on the first day of the following month after 30 days of service. The Company's contribution amounted to $\$ 3.1$ million in 2018, $\$ 2.3$ million in 2017 , and $\$ 2.1$ million in 2016 . The Plan allows participants to withdraw all or part of their vested amount in the Plan due to certain financial hardship as set forth in the Internal Revenue Code and Treasury Regulations. Participants may also borrow up to $50 \%$ of the vested amount, with a maximum of $\$ 50,000$. The minimum loan amount is $\$ 1,000$.

Bank-Owned Life Insurance. As of December 31, 2018, cash surrender value of bank-owned life insurance was $\$ 49.9$ million. The Bank is the beneficiary under the policy. In the event of the death of a covered officer, we will receive the specified insurance benefit from the insurance carrier and pay a fixed dollar amount to the beneficiary designated by the officer.

## 19. Equity Incentive Plans

In May 2015, the stockholders of the Company approved, the amended, and restated 2005 Incentive Plan, which provides that $3,562,168$ shares of the Company's common stock may be granted as incentive or non-statutory stock options, or as restricted stock, or as restricted stock units. As of December 31, 2018, the only options granted by the Company under the 2005 Incentive Plan, as amended and restated, were non-statutory stock options to selected bank officers and non-employee directors at exercise prices equal to the fair market value of a share of the Company's common stock on the date of grant. Such options have a maximum ten-year term and vest in $20 \%$ annual increments (subject to early termination in certain events). If such options expire or terminate without having been exercised, any shares not purchased will again be available for future grants or awards. There were no options granted during the three years ended 2018. The Company expects to issue new shares to satisfy stock option exercises and the vesting of restricted stock units.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Cash received from exercises of stock options totaled $\$ 838,000$ for 35,880 shares in 2018 , $\$ 1.1$ million for 46,790 shares in 2017, and $\$ 7.7$ million for 327,830 shares in 2016. Aggregate intrinsic value for options exercised was $\$ 718,000$ in 2018 compared to $\$ 663,000$ in 2017.

A summary of stock option activity for 2018, 2017, and 2016 follows:

|  | Shares | WeightedAverage Exercise Price |  | Weighted-Average Remaining Contractual Life (in years) | $\begin{aligned} & \text { Aggregate } \\ & \text { Intrinsic } \\ & \text { Value } \\ & \text { (in thousands) } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance, December 31, 2015......... | 1,031,170 |  | 31.27 | 0.9 | \$ | 3,268 |
| Exercised ................................. | $(327,830)$ | \$ | 23.37 |  |  |  |
| Forfeited.................................. | $(620,670)$ |  | 36.50 |  |  |  |
| Balance, December 31, 2016......... | 82,670 |  | 23.37 | 1.1 | \$ | 1,211 |
| Exercised | $(46,790)$ | \$ | 23.37 |  |  |  |
| Balance, December 31, 2017......... | 35,880 |  | 23.37 | 0.1 | \$ | 675 |
| Exercised ................................. | $(35,880)$ | \$ | 23.37 |  |  |  |
| Balance, December 31, 2018......... | - |  | - | 0.0 | \$ | - |

At December 31, 2018, 2,621,737 shares were available under the 2005 Incentive Plan for future grants.
In addition to stock options, the Company also grants restricted stock units ("RSUs") to eligible employees which vest subject to continued employment at the vesting dates. or the attainment of specified performance goals.

RSUs are granted under the Company's long-term incentive plan at no cost to the recipient. RSUs generally vest ratably over three years or cliff vest after one or three years of continued employment from the date of the grant. While a portion of RSUs are time-vesting awards, others vest subject to the attainment of specified performance goals and are referred to as "performance-based RSUs." All RSUs are subject to forfeiture until vested.

Performance-based RSUs are granted at the target amount of awards. Based on the Company's attainment of specified performance goals and consideration of market conditions, the number of shares that vest can be adjusted to a minimum of zero and to a maximum of $150 \%$ of the target. The amount of performance-based RSUs that are eligible to vest is determined at the end of each performance period and is then added together to determine the total number of performance shares that are eligible to vest. Performance-based RSUs generally cliff vest three years from the date of grant.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The following table presents RSU activity for 2018, 2017, and 2016:

|  | Time-Based RSUs |  | Performance-Based RSUs |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Shares | WeightedAverage Grant Date Fair Value | Shares | WeightedAverage Grant Date Fair Value |
| Balance at December 31, 2015..................... | 85,111 | 27.55 | 457,264 | 26.84 |
| Granted. | 88,693 | 30.37 | 117,679 | 37.22 |
| Vested. | $(13,780)$ | 29.80 | - | - |
| Forfeited .............................................. | $(7,548)$ | 29.49 | - | - |
| Balance at December 31, 2016..................... | 152,476 | 28.89 | 574,943 | 28.96 |
| Granted | 87,781 | 38.59 | 159,264 | 40.36 |
| Vested. | $(1,167)$ | 38.03 | $(394,335)$ | 39.96 |
| Forfeited | $(17,352)$ | 33.10 | - | - |
| Balance at December 31, 2017..................... | 221,738 | 32.72 | 339,872 | 33.52 |
| Granted ................................................ | 141,810 | 43.30 | 55,455 | 39.46 |
| Vested. | $(65,721)$ | 41.59 | $(121,336)$ | 37.87 |
| Forfeited | $(13,334)$ | 35.96 | (8,332) | 29.61 |
| Balance at December 31, 2018..................... | 284,493 | 35.79 | 265,659 | 32.90 |

All awards are deemed probable of issuance and the compensation expense recorded for restricted stock units was $\$ 7.3$ million in 2018, $\$ 5.2$ million in 2017, and $\$ 4.4$ million in 2016 . Unrecognized stock-based compensation expense related to restricted stock units was $\$ 9.8$ million at December 31, 2018 and is expected to be recognized over the next 1.7 years.

The Company adopted ASU 2016-09 in 2017 where all excess tax benefits and tax deficiencies from share based payments are recognized as income tax expense or benefit in the income statement instead of the previous accounting which credited excess tax benefits to additional paid-in capital and tax deficiencies as a charge to income tax expense or as an offset to accumulated excess tax benefits, if any.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 20. Condensed Financial Information of Cathay General Bancorp

The condensed financial information of the Bancorp as of December 31, 2018, and December 31, 2017, and for the years ended December 31, 2018, 2017, and 2016 is as follows:

## Balance Sheets

|  | As of December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
|  | (In thousands, except share and per share data) |  |  |  |
| Assets |  |  |  |  |
| Cash. | \$ | 19,861 | \$ | 44,645 |
| Cash pledged as margin for interest rate swaps |  | 1,766 |  | 4,506 |
| Short-term certificates of deposit |  | 328 |  | 327 |
| Securities available for sale. |  | 17,564 |  | 19,806 |
| Investment in Cathay Bank subsidiary |  | 2,290,073 |  | 2,134,445 |
| Investment in non-bank subsidiaries |  | 4,652 |  | 4,799 |
| Other assets |  | 6,012 |  | 6,831 |
| Total assets | \$ | 2,340,256 | \$ | 2,215,359 |
| Liabilities |  |  |  |  |
| Junior subordinated debt | \$ | 119,136 | \$ | 119,136 |
| Long-term Debt. |  | 70,313 |  | 75,000 |
| Deferred payments from acquisition |  | 18,458 |  | 35,404 |
| Other liabilities. |  | 10,483 |  | 12,515 |
| Total liabilities |  | 218,390 |  | 242,055 |
| Commitments and contingencies. |  | - |  |  |
| Stockholders' equity |  |  |  |  |
| Common stock, $\$ 0.01$ par value, $100,000,000$ shares authorized, $89,826,317$ issued and $80,501,948$ outstanding at December 31, 2018, and 89,104,022 issued and 80,893,379 outstanding at December 31, 2017 |  |  |  |  |
|  |  | 898 |  | 891 |
| Additional paid-in-capital. |  | 942,062 |  | 932,874 |
| Accumulated other comprehensive loss, net |  | $(18,006)$ |  | $(2,511)$ |
| Retained earnings. |  | 1,479,149 |  | 1,281,639 |
| Treasury stock, at cost $(9,324,369$ shares at December 31, 2018, and $8,210,643$ shares at December 31, 2017) |  | $(282,237)$ |  | $(239,589)$ |
| Total stockholders' equity... |  | 2,121,866 |  | 1,973,304 |
| Total liabilities and stockholders' equity | \$ | 2,340,256 | \$ | 2,215,359 |

## Statements of Operations

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  |
|  |  |  | (In thousands) |  |  |  |
| Cash dividends from Cathay Bank and Far East National Bank ............ | \$ | 127,825 | \$ | 265,207 | \$ | 113,448 |
| Cash dividends from GBC Venture Capital |  | - |  | - |  | 950 |
| Interest income |  | 57 |  | 221 |  | 48 |
| Interest expense. |  | 9,813 |  | 7,637 |  | 5,791 |
| Non-interest (loss)/income |  | $(1,940)$ |  | 1,909 |  | (488) |
| Gain from acquisition. |  | 340 |  | 5,628 |  | - |
| Non-interest expense. |  | 3,782 |  | 6,726 |  | 3,756 |
| Income before income tax benefit |  | 112,687 |  | 258,602 |  | 104,411 |
| Income tax benefit |  | $(4,971)$ |  | $(5,687)$ |  | $(4,199)$ |
| Income before undistributed earnings of subsidiaries .......................... |  | 117,658 |  | 264,289 |  | 108,610 |
| Undistributed earnings of subsidiary ................................................ |  | 154,227 |  | $(88,247)$ |  | 66,489 |
| Net income. | \$ | 271,885 | \$ | $\underline{\text { 176,042 }}$ | \$ | 175,099 |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## Statements of Cash Flows

|  | Year Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  |
|  | (In thousands) |  |  |  |  |  |
| Cash flows from Operating Activities |  |  |  |  |  |  |
| Net income ................................................................................ | \$ | 271,885 | \$ | 176,042 | \$ | 175,099 |
| Adjustments to reconcile net income to net cash provided by operating activities: |  |  |  |  |  |  |
| Equity in undistributed earnings of subsidiaries................................... |  | $(154,227)$ |  | 88,247 |  | $(67,770)$ |
| Dividends in excess of earnings of non-bank subsidiaries ..................... |  | - |  | - |  | 1,281 |
| Unrealized loss on equity securities |  | 2,242 |  | - |  | - |
| Write-downs on venture capital and other investments |  | 271 |  | 254 |  | 503 |
| Write-downs on impaired securities. |  | - |  | - |  | 206 |
| Loss in fair value of warrants |  | (93) |  | (12) |  | (17) |
| Stock issued to directors as compensation |  | 649 |  | 550 |  | 550 |
| Net change in other assets |  | 915 |  | 3,490 |  | $(1,136)$ |
| Gain from acquisition. |  | (340) |  | $(5,628)$ |  | - |
| Net change in other liabilities |  | $(1,375)$ |  | 5,949 |  | (756) |
| Net cash provided by operating activities |  | 119,927 |  | 268,892 |  | 107,960 |
| Cash flows from Investment Activities |  |  |  |  |  |  |
| (Increase)/decrease in short-term investment ....................................... |  | (1) |  | (2) |  | 23,999 |
| Proceeds from sale of available-for-sale securities |  | - |  | 12,580 |  | 294 |
| Purchase of available-for-sale securities |  | - |  | $(2,759)$ |  | - |
| Venture capital and other investments |  | 150 |  | 671 |  | 134 |
| Acquisitions, net of cash acquired. |  | - |  | $(275,328)$ |  | - |
| Net cash provided by/(used in) investment activities |  | 149 |  | $(264,838)$ |  | 24,427 |
| Cash flows from Financing Activities |  |  |  |  |  |  |
| Repayment of long-term debt. |  | $(21,633)$ |  | - |  | - |
| Proceeds of issuance of long-term debt |  | - |  | 75,000 |  | - |
| Cash dividends |  | $(83,428)$ |  | $(69,888)$ |  | $(59,274)$ |
| Proceeds from shares issued under the Dividend Reinvestment Plan . |  | 2,821 |  | 2,528 |  | 2,277 |
| Proceeds from exercise of stock options |  | 838 |  | 1,094 |  | 7,661 |
| Taxes paid related to net share settlement of RSUs |  | $(3,550)$ |  | $(5,128)$ |  | (103) |
| Purchase of treasury stock |  | $(42,648)$ |  | - |  | $(54,441)$ |
| Net cash (used in)/provided by financing activities |  | $(147,600)$ |  | 3,606 |  | $(103,880)$ |
| (Decrease)/Increase in cash and cash equivalents |  | $(27,524)$ |  | 7,660 |  | 28,507 |
| Cash and cash equivalents, beginning of the year |  | 49,151 |  | 41,491 |  | 12,984 |
| Cash and cash equivalents, end of the year | \$ | 21,627 | \$ | 49,151 | \$ | 41,491 |

## 21. Dividend Reinvestment Plan

The Company has a Dividend Reinvestment Plan which allows for participants' reinvestment of cash dividends and certain optional additional investments in the Bancorp's common stock. Shares issued under the plan and the consideration received were 69,084 shares for $\$ 2.8$ million in $2018,65,044$ shares for $\$ 2.5$ million in 2017 , and 72,231 shares for $\$ 2.3$ million in 2016.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 22. Regulatory Matters

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

The Federal Deposit Insurance Corporation has established five capital ratio categories: "well capitalized," "adequately capitalized," "undercapitalized," "significantly undercapitalized," and "critically undercapitalized." A well-capitalized institution must have a common equity tier 1 capital ratio equal to or greater than $6.5 \%$, a Tier 1 risk-based capital ratio equal to or greater than $8 \%$, a total risk-based capital ratio equal to or greater than $10 \%$, and a Tier 1 leverage capital ratio equal to or greater than 5\%. At December 31, 2018 and 2017, the Bank qualified as well capitalized under the regulatory framework for prompt corrective action.

The Bancorp's and the Bank's capital and leverage ratios as of December 31, 2018, and December 31, 2017, are presented in the tables below:

| (Dollars in thousands) | Cathay General Bancorp |  |  |  |  |  | Cathay Bank |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | December 31, 2018 |  |  | December 31, 2017 |  |  | December 31, 2018 |  |  | December 31, 2017 |  |  |
|  |  | Balance | \% |  | Balance | \% |  | Balance | \% |  | Balance | \% |
| Common equity Tier 1 capital ( to risk-weighted assets) ..... | \$ | 1,736,854 | 12.43 | \$ | 1,572,025 | 12.19 | \$ | 1,904,820 | 13.66 | \$ | 1,734,719 | 13.46 |
| Common equity Tier 1 capital minimum requirement. |  | 628,393 | 4.50 |  | 580,552 | 4.50 |  | 627,800 | 4.50 |  | 579,921 | 4.50 |
| Excess. | \$ | 1,108,461 | 7.93 | \$ | 991,473 | 7.69 | \$ | 1,277,020 | 9.16 | \$ | 1,154,798 | 8.96 |
| Tier 1 capital (to risk-weighted assets) $\qquad$ |  | 1,736,854 | 12.43 | \$ | 1,572,025 | 12.19 | \$ | 1,904,820 | 13.66 | \$ | 1,734,719 | 13.46 |
| Tier 1 capital minimum requirement |  | 838,258 | 6.00 |  | 774,070 | 6.00 |  | 837,067 | 6.00 |  | 773,229 | 6.00 |
| Excess.. | \$ | 898,596 | 6.43 | \$ | 797,955 | 6.19 | \$ | 1,067,753 | 7.66 | \$ | 961,490 | 7.46 |
| Total capital (to risk-weighted assets) $\qquad$ | \$ | 1,976,995 | 14.15 | \$ | 1,820,860 | 14.11 | \$ | 2,029,462 | 14.55 | \$ | 1,862,806 | 14.45 |
| Total capital minimum requirement |  | 1,117,677 | 8.00 |  | 1,032,093 | 8.00 |  | 1,116,089 | 8.00 |  | 1,030,971 | 8.00 |
| Excess. | \$ | 859,318 | 6.15 | \$ | 788,767 | 6.11 | \$ | 913,373 | 6.55 | \$ | 831,835 | 6.45 |
| Tier 1 capital (to average assets) - Leverage ratio ...... | \$ | 1,736,854 | 10.83 | \$ | 1,572,025 | 10.35 | \$ | 1,904,820 | 11.89 | \$ | 1,734,719 | 11.82 |
| Minimum leverage requirement |  | 641,755 | 4.00 |  | 607,349 | 4.00 |  | 640,807 | 4.00 |  | 586,959 | 4.00 |
| Excess. | \$ | 1,095,099 | 6.83 | \$ | 964,676 | 6.35 | \$ | 1,264,013 | 7.89 | \$ | 1,147,760 | 7.82 |
| Risk-weighted assets .............. |  | 13,969,004 |  | \$ | 12,901,161 |  | S | 13,949,605 |  | \$ | 12,887,142 |  |
| Total average assets ${ }^{(1)}$..... | \$ | 16,042,924 |  | \$ | 15,183,720 |  | \$ | 16,019,658 |  | \$ | 14,673,981 |  |

(1) The quarterly total average assets reflect all debt securities at amortized cost, equity security with readily determinable fair values at the lower of cost or fair value, and equity securities without readily determinable fair values at historical cost.

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 23. Balance Sheet Offsetting

Certain financial instruments, including resell and repurchase agreements, securities lending arrangements and derivatives, may be eligible for offset in the consolidated balance sheet and/or subject to master netting arrangements or similar agreements. The Company's securities sold with agreements to repurchase and derivative transactions with upstream financial institution counter parties are generally executed under International Swaps and Derivative Association master agreements which include "right of set-off" provisions. In such cases, there is generally a legally enforceable right to offset recognized amounts and there may be an intention to settle such amounts on a net basis. Nonetheless, the Company does not generally offset such financial instruments for financial reporting purposes.

Financial instruments that are eligible for offset in the condensed consolidated balance sheets, as of December 31, 2018, and December 31, 2017, are presented in the following tables:


December 31, 2017
Assets:

| Derivatives | \$ | 5,218 | \$ | - | \$ | 5,218 | \$ | - | \$ | - | \$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Liabilities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Securities sold under agreements to repurchase $\qquad$ | \$ | 100,000 | \$ | - | \$ | 100,000 | \$ | - | \$ | $(100,000)$ | \$ |  |
| Derivatives | \$ | 2,699 | \$ | - | \$ | 2,699 | \$ | - | \$ | $(2,699)$ | \$ | - |

## CATHAY GENERAL BANCORP AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

## 24. Quarterly Results of Operations (Unaudited)

The following table sets forth selected unaudited quarterly financial data:

|  | Summary of Operations |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  |  |  | 2017 |  |  |  |
|  | Fourth Quarter | $\begin{gathered} \text { Third } \\ \text { Quarter } \\ \hline \end{gathered}$ | Second Quarter | First Quarter | Fourth Quarter | Third Quarter | Second Quarter | $\begin{gathered} \text { First } \\ \text { Quarter } \\ \hline \end{gathered}$ |
|  | (In thousands, except per share data) |  |  |  |  |  |  |  |
| Interest income | \$183,869 | \$176,866 | \$167,520 | \$159,700 | \$155,640 | \$154,078 | \$135,629 | \$130,804 |
| Interest expense | 38,428 | 31,782 | 27,489 | 24,357 | 22,593 | 20,882 | 18,277 | 18,690 |
| Net interest income | 145,441 | 145,084 | 140,031 | 135,343 | 133,047 | 133,196 | 117,352 | 112,114 |
| Reversal for credit losses | - | $(1,500)$ | - | $(3,000)$ | - | - | - | $(2,500)$ |
| Net-interest income after reversal for loan losses $\qquad$ | 145,441 | 146,584 | 140,031 | 138,343 | 133,047 | 133,196 | 117,352 | 114,614 |
| Non-interest income | 10,795 | 7,835 | 7,767 | 5,310 | 10,466 | 12,961 | 6,152 | 6,718 |
| Non-interest expense | 74,395 | 65,964 | 63,088 | 60,971 | 66,407 | 61,248 | 56,658 | 51,886 |
| Income before income tax expense $\qquad$ | 81,841 | 88,455 | 84,710 | 82,682 | 77,106 | 84,909 | 66,846 | 69,446 |
| Income tax expense | 17,193 | 18,698 | 11,046 | 18,866 | 51,166 | 35,163 | 15,431 | 20,505 |
| Net income | \$ 64,648 | $\underline{\$ 69,757}$ | \$ 73,664 | \$ 63,816 | \$ 25,940 | \$49,746 | \$ 51,415 | \$48,941 |
| Net income per common share |  |  |  |  |  |  |  |  |
| Basic.. | \$ 0.80 | \$ 0.86 | \$ 0.91 | \$ 0.79 | \$ 0.32 | \$ 0.62 | \$ 0.64 | \$ 0.61 |
| Diluted | \$ 0.80 | \$ 0.85 | \$ 0.90 | \$ 0.78 | \$ 0.32 | \$ 0.61 | \$ 0.64 | \$ 0.61 |

## 25. Subsequent Events

## Dividend Declared

On February 21, 2019, the Company's Board of Directors declared first quarter 2019 dividends for the Company's common stock. The common stock cash dividend of $\$ 0.31$ per share will be paid on March 14, 2019 to stockholders of record on March 4, 2019.

The Company has evaluated the effect of events that have occurred subsequent to December 31, 2018, through the date of issuance of the Consolidated Financial Statements, and there have been no material events that would require recognition in the Consolidated Financial Statements or disclosure in the notes to the Consolidated Financial Statements.

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[^0]:    (1) Yields and amounts of interest earned include loan fees. Non-accrual loans are included in the average balance.
    (2) Calculated by dividing net interest income by average outstanding interest-earning assets.

[^1]:    /s/ KPMG LLP
    Los Angeles, California
    March 4, 2019

