FEDERAL DEPOSIT INSURANCE CORPORATION

WASHINGTON, D.C. 20429

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, 2020

OR

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

For the transition period from to

FIRST REPUBLIC BANK

(Exact name of registrant as specified in its charter)

California	**80-0513856**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
111 Pine Street, 2nd Floor, San Francisco, CA	**94111**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(415) 392-1400**

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value	**FRC**	**New York Stock Exchange**
Depositary Shares, Each Representing a 1/40th Interest in a Share of 5.50% Noncumulative Perpetual Series G Preferred Stock	**FRC-PrG**	**New York Stock Exchange**
Depositary Shares, Each Representing a 1/40th Interest in a Share of 5.125% Noncumulative Perpetual Series H Preferred Stock	**FRC-PrH**	**New York Stock Exchange**
Depositary Shares, Each Representing a 1/40th Interest in a Share of 5.50% Noncumulative Perpetual Series I Preferred Stock	**FRC-PrI**	**New York Stock Exchange**
Depositary Shares, Each Representing a 1/40th Interest in a Share of 4.70% Noncumulative Perpetual Series J Preferred Stock	**FRC-PrJ**	**New York Stock Exchange**
Depositary Shares, Each Representing a 1/40th Interest in a Share of 4.125% Noncumulative Perpetual Series K Preferred Stock	**FRC-PrK**	**New York Stock Exchange**
Depositary Shares, Each Representing a 1/40th Interest in a Share of 4.250% Noncumulative Perpetual Series L Preferred Stock	**FRC-PrL**	**New York Stock Exchange**

Securities registered pursuant to section 12(g) of the Act:

None

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

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

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

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

Indicate by check mark 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 the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐
Non-accelerated filer ☐ (Do not check if a smaller reporting company) Smaller reporting company ☐
Emerging growth company ☐

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the closing price of $105.99 as of June 30, 2020 was approximately $18.2 billion.

The number of shares outstanding of the Bank's common stock, par value $0.01 per share, as of February 15, 2021 was 174,232,228.

DOCUMENTS INCORPORATED BY REFERENCE

The following document is incorporated by reference in parts of the Form 10-K:

Portions of the Bank's definitive proxy statement for its annual meeting of shareholders to be held on May 12, 2021 (the "2021 Proxy Statement"), which will be filed within 120 days of the Bank's last fiscal year end, are incorporated in Part III of the Form 10-K.

The index to Exhibits appears on page 213.

TABLE OF CONTENTS

Glossary of Acronyms and Terms . . . 3

PART I

Item 1. Business . . . 7
Item 1A. Risk Factors . . . 33
Item 1B. Unresolved Staff Comments . . . 59
Item 2. Properties . . . 59
Item 3. Legal Proceedings . . . 59
Item 4. Mine Safety Disclosures . . . 59

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities . . . 60
Item 6. [*Reserved*] . . . 62
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations . . . 63
Item 7A. Quantitative and Qualitative Disclosures About Market Risk . . . 125
Item 8. Financial Statements and Supplementary Data . . . 128
Consolidated Balance Sheets at December 31, 2020 and 2019 . . . 128
Consolidated Statements of Income and Comprehensive Income for the Years Ended December 31, 2020, 2019 and 2018 . . . 129
Consolidated Statements of Changes in Shareholders' Equity for the Years Ended December 31, 2020, 2019 and 2018 . . . 130
Consolidated Statements of Cash Flows for the Years Ended December 31, 2020, 2019 and 2018 . . . 131
Notes to Consolidated Financial Statements . . . 132
Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure . . . 212
Item 9A. Controls and Procedures . . . 212
Item 9B. Other Information . . . 212

PART III

Item 10. Directors, Executive Officers and Corporate Governance . . . 212
Item 11. Executive Compensation . . . 212
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters . . . 212
Item 13. Certain Relationships and Related Transactions, and Director Independence . . . 212
Item 14. Principal Accountant Fees and Services . . . 213

PART IV

Item 15. Exhibit and Financial Statement Schedules . . . 213
Item 16. Form 10-K Summary . . . 216

SIGNATURES

GLOSSARY OF ACRONYMS AND TERMS

The following listing provides a reference to common acronyms and terms used throughout this report:

Term	Definition
ACL	Allowance for Credit Losses
ALM	Asset Liability Management
AML	Anti-Money Laundering
AMLA	Anti-Money Laundering Act of 2020
ARM	Adjustable-Rate Mortgage
ASC	Accounting Standards Codification
ASU	Accounting Standards Update
AUA	Assets Under Administration
AUM	Assets Under Management
Basel Committee	Basel Committee on Banking Supervision
BHCA	Bank Holding Company Act of 1956
Board	Board of Directors
bp	Basis Point
BSA	Bank Secrecy Act
CAA	Consolidated Appropriations Act, 2021
CAGR	Compounded Annual Growth Rate
CARES Act	Coronavirus Aid, Relief and Economic Security Act
CCPA	California Consumer Privacy Protection Act of 2018
CD	Certificate of Deposit
CECL	Current Expected Credit Losses
CET1	Common Equity Tier 1
CFPB	Consumer Financial Protection Bureau
CFTC	Commodity Futures Trading Commission
CIBCA	Change in Bank Control Act
CLTV	Combined LTV
CMT	Constant Maturity Treasury
COFI	11th District Monthly Weighted Average Cost of Funds Index
Commissioner	Commissioner of the DFPI
COSO	Committee of Sponsoring Organizations of the Treadway Commission
COVID-19	COVID-19 Pandemic
CPR	Constant Prepayment Rate
CPRA	California Privacy Rights Act
CRA	Community Reinvestment Act
DFPI	California Department of Financial Protection and Innovation
DIF	FDIC's Deposit Insurance Fund
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act
DTA	Deferred Tax Asset
DTL	Deferred Tax Liability
Economic Aid Act	Economic Aid to Hard-Hit Small Businesses, Nonprofits, and Venues Act
EGRRCPA	Economic Growth, Regulatory Relief, and Consumer Protection Act
EPS	Earnings Per Common Share
ESPP	Employee Stock Purchase Plan
Fannie Mae	Federal National Mortgage Association
FASB	Financial Accounting Standards Board
FCA	Financial Conduct Authority
FDIA	Federal Deposit Insurance Corporation Improvement Act of 1991
FDIC	Federal Deposit Insurance Corporation
Federal Reserve	Federal Reserve System
FFIEC	Federal Financial Institutions Examination Council
FHLB	Federal Home Loan Bank
FinCEN	Financial Crimes Enforcement Network
FINRA	Financial Industry Regulatory Authority
FinTech	Financial Technology
FOMC	Federal Open Market Committee of the Federal Reserve
Freddie Mac	Federal Home Loan Mortgage Corporation
FRIM	First Republic Investment Management, Inc.
FRLC	First Republic Lending Corporation
FRSC	First Republic Securities Company, LLC
FRTC Delaware	First Republic Trust Company of Delaware LLC
FRTC Wyoming	First Republic Trust Company of Wyoming LLC
GAAP	Accounting Principles Generally Accepted in the United States of America
HELOC	Home Equity Line of Credit
HQLA	High-Quality Liquid Assets
IBA	ICE Benchmark Administration
ICE	Intercontinental Exchange
IRC	Internal Revenue Code of 1986, as amended
LCR	Liquidity Coverage Ratio
LCR Rule	Liquidity Coverage Ratio Rule
LGD	Loss Given Default
LIBOR	London Interbank Offered Rate
LTV	Loan-to-Value Ratio

MBS .... Mortgage-Backed Securities
MSA .... Mortgage Servicing Asset
MSR .... Mortgage Servicing Right
NAV .... Net Asset Value
NFA .... National Futures Association
NSFR .... Net Stable Funding Ratio
PD .... Probability of Default
PPP .... SBA's Paycheck Protection Program
PPPLF .... PPP Liquidity Facility
PSU .... Performance Share Unit
RESPA .... Real Estate Settlement Procedures Act
RSA .... Restricted Stock Award
RSU .... Restricted Stock Unit
RWA .... Risk-Weighted Asset
SBA .... U.S. Small Business Administration
SEC .... U.S. Securities and Exchange Commission
Simplifications Rule .... Simplifications to the Capital Rule Pursuant to the Economic Growth and Regulatory Paperwork Reduction Act of 1996
SOFR .... Secured Overnight Financing Rate
TDR .... Troubled Debt Restructuring
TILA .... Truth-in-Lending Act
Trust Company .... First Republic Trust Company, First Republic Trust Company of Delaware LLC, and First Republic Trust Company of Wyoming LLC
VIE .... Variable Interest Entity

EXPLANATORY NOTE

As used throughout this document, the terms "First Republic," the "Bank," "we," "our" and "us" mean, except as the context indicates otherwise, First Republic Bank, a California-chartered commercial bank, including all its subsidiaries.

PART I

Information Regarding Forward-Looking Statements

This Annual Report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Statements in this Annual Report that are not historical facts are hereby identified as "forward-looking statements" for the purpose of the safe harbor provided by Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Any statements about our expectations, beliefs, plans, predictions, forecasts, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but not always, made through the use of words or phrases such as "anticipates," "believes," "can," "could," "may," "predicts," "potential," "should," "will," "estimates," "plans," "projects," "continuing," "ongoing," "expects," "intends" and similar words or phrases. Accordingly, these statements are only predictions and involve estimates, known and unknown risks, assumptions and uncertainties. Our actual results could differ materially from those expressed or anticipated in such forward-looking statements as a result of risks and uncertainties more fully described under "Item 1A. Risk Factors."

Forward-looking statements involving such risks and uncertainties include, but are not limited to, statements regarding:

- Projections of loans, assets, deposits, liabilities, revenues, expenses, tax liabilities, net income, capital expenditures, liquidity, dividends, capital structure, investments or other financial items;
- Expectations regarding the banking and wealth management industries;
- Descriptions of plans or objectives of management for future operations, products or services;
- Forecasts of future economic conditions generally and in our market areas in particular, which may affect the ability of borrowers to repay their loans and the value of real property or other property held as collateral for such loans;
- Our opportunities for growth and our plans for expansion (including opening new offices);
- Expectations about the performance of any new offices;
- Projections about the amount and the value of intangible assets, as well as amortization of recorded amounts;
- Future provisions for credit losses on loans and debt securities, as well as for unfunded loan commitments;
- Changes in nonperforming assets;
- Expectations regarding the impact and duration of COVID-19;
- Projections about future levels of loan originations or loan repayments;
- Projections regarding costs, including the impact on our efficiency ratio; and
- Descriptions of assumptions underlying or relating to any of the foregoing.

Factors that could cause actual results to differ from those discussed in the forward-looking statements include, but are not limited to:

- Significant competition to attract and retain banking and wealth management customers, from both traditional and non-traditional financial services and technology companies;
- Our ability to recruit and retain key managers, employees and board members;
- Natural or other disasters, including earthquakes, wildfires, pandemics or acts of terrorism affecting the markets in which we operate;
- The negative impacts and disruptions resulting from COVID-19 on our colleagues and clients, the communities we serve and the domestic and global economy, which may have an adverse effect on our business, financial position and results of operations;
- Interest rate risk and credit risk;
- Our ability to maintain and follow high underwriting standards;
- Economic and market conditions, including those affecting the valuation of our investment securities portfolio and credit losses on our loans and debt securities;
- Real estate prices generally and in our markets;
- Our geographic and product concentrations;
- Demand for our products and services;
- Developments and uncertainty related to the future use and availability of some reference rates, such as LIBOR and COFI, as well as other alternative reference rates;
- The regulatory environment in which we operate, our regulatory compliance and future regulatory requirements;
- Any future changes to regulatory capital requirements;
- Legislative and regulatory actions affecting us and the financial services industry, such as the Dodd-Frank Act, including increased compliance costs, limitations on activities and requirements to hold additional capital, as well as changes to the Dodd-Frank Act pursuant to the EGRRCPA;
- Our ability to avoid litigation and its associated costs and liabilities;
- Future FDIC special assessments or changes to regular assessments;
- Fraud, cybersecurity and privacy risks; and
- Custom technology preferences of our customers and our ability to successfully execute on initiatives relating to enhancements of our technology infrastructure, including client-facing systems and applications.

All forward-looking statements are necessarily only estimates of future results, and there can be no assurance that actual results will not differ materially from expectations, and, therefore, you are cautioned not to place undue reliance on such statements. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this Annual Report and our other public filings under the Exchange Act. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events.

Item 1. Business.

General

Founded in 1985, we are a California-chartered commercial bank and trust company headquartered in San Francisco with deposits insured by the FDIC. We offer private banking, private business banking and private wealth management, including investment, trust and brokerage services. We specialize in delivering exceptional, relationship-based service and offer a complete line of products, including residential, commercial and personal loans, deposit services, and wealth management. Services are offered through preferred banking or wealth management offices primarily in: San Francisco, Palo Alto, Los Angeles, Santa Barbara, Newport Beach and San Diego, California; Portland, Oregon; Boston, Massachusetts; Palm Beach, Florida; Greenwich, Connecticut; New York, New York; and Jackson, Wyoming. We provide our services through 92 offices, of which 80 are licensed deposit-taking offices and 12 offices offer exclusively lending, wealth management or trust services. We have been continuously headquartered in San Francisco since our inception. As of December 31, 2020, we had total assets of $142.5 billion, total deposits of $114.9 billion, total equity of $11.8 billion and wealth management assets under management or administration of $194.5 billion.

We originate real estate-secured loans and other loans for retention in our loan portfolio. We also originate mortgage loans for sale to institutional investors or for securitization and sale in the secondary market.

We have an established record of meeting the credit needs of the communities where we operate and historically have met our obligations under the CRA. In particular, we lend to support community development projects, affordable housing programs and non-profit organizations that help economically disadvantaged individuals and to residents of low- and moderate- income census tracts, in each case consistent with prudent underwriting practices. We also make investments that benefit small businesses or low- and moderate- income communities in our footprint, including investing in low-income housing tax credit funds, small business investment companies, community development financial institutions and other similar organizations. We also donate to nonprofit organizations that offer a wide range of programs, including educational and health programs to economically disadvantaged students and families, as well as COVID-19 relief efforts and racial equality.

We also offer a broad array of internally managed investment services and, through an open architecture model, access to investments managed by unaffiliated investment advisers. Our wealth management services include a variety of investment strategies and products, online investment management services, trust and custody services, full service and online brokerage, financial and estate planning, access to alternative investments (private equity, venture capital, hedge and real estate funds), socially responsible investing, insurance and foreign exchange. We offer our wealth management services through FRIM, a federally registered investment adviser with the SEC. We offer brokerage services through FRSC, a broker-dealer registered with the SEC. We offer insurance solutions through FRSC and FRIM. We provide trust services through the Trust Company. FRIM, FRSC, FRTC Delaware and FRTC Wyoming are wholly-owned subsidiaries of the Bank.

We do not engage in proprietary trading or investment banking activities nor do we originate or trade in derivatives for our own account, and we do not have any current plans to engage in any of these activities.

We currently operate our business through two business segments: Commercial Banking and Wealth Management. For segment information, see the information in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Business Segments” and Note 25 in “Item 8. Financial Statements and Supplementary Data.”

Our Business Strategy

Our core business principles and service-based culture have successfully guided our efforts over the past 35 years. We believe focusing on these principles will enable us to expand our capabilities for providing value-added services to our urban, coastal client base and generate steady, long-term growth.

Deliver Superior Client Service. We believe that stable long-term growth and profitability are the result of building strong client relationships one at a time while maintaining superior credit discipline. The most effective way to achieve this is through the continued delivery of superior, carefully coordinated client service without compromising the credit quality of our assets. Our employees strive to understand our clients’ needs and identify

appropriate financial solutions through our comprehensive suite of products and services. Our client-focused culture has allowed us to broaden and deepen these relationships over time. In turn, these clients do more business with us, along with the substantial portion of our new clients coming to us from "word-of-mouth" referrals from satisfied existing clients. We believe that delivering superior client service differentiates us from our competition.

Originate High Quality Loans. We focus on originating high-quality loans for existing and new clients. Our lending activities provide an opportunity for our relationship managers to also introduce other services to these clients, which develop into comprehensive relationships as a result of the delivery of superior client service. This enables us to expand our business in a disciplined manner while maintaining superior credit quality. Refer to "—Lending Activities" below for further discussion.

Grow Deposits. An important aspect of our franchise is the ability to gather deposits, which provides us with a stable, low-cost source of funding. We focus on growing core deposits by expanding relationships with existing clients and acquiring new deposit clients, both business and consumer. Growth in our deposit base reflects our value-added strategy of introducing deposits to loan clients, wealth management clients, businesses and non-profit organizations. Refer to "—Deposits" below for further discussion.

Grow Our Wealth Management Business. We offer integrated investment management, trust, custody, financial planning, insurance, brokerage and foreign exchange services, which are an extension of our banking franchise. We expand our wealth management business through our relationship-based approach. We increase our AUM or AUA by increasing services offered to Bank clients, acquiring new clients and hiring additional professionals, who bring their clients with them. We believe that our brand name, superior client service and service culture will enable us to continue to expand this business. Refer to "—Private Wealth Management Activities" below for further discussion.

Attract, Retain and Develop Diverse Talented Professionals. Attracting and retaining diverse talented professionals is critical to driving the development of our business and delivering superior financial performance. We have experienced low turnover across our workforce and intend to continue hiring and developing professionals who are key to our business objectives, brand, and culture. We believe our distinct business model, culture, scalable platform, and incentive compensation structure enable us to attract and retain diverse talent. We remain committed to empowering our colleagues to reach their full potential so they can take care of our clients and communities and in turn grow our business.

Lending Activities

Products

We offer a broad range of lending products to meet the needs of our clients. Our loan portfolio primarily consists of loans secured by single family residences, multifamily buildings and commercial real estate properties. Our strategy includes lending to borrowers who are professionals, business executives or entrepreneurs who are buying or refinancing homes in metropolitan communities, refinancing existing household debt, or investing in their firms, which creates the opportunity for us to offer related products and services.

We emphasize the origination of single family mortgage loans and originate other real estate secured loans on a selective basis, including multifamily mortgages, commercial real estate mortgages and construction loans. We also originate business loans, including capital call lines of credit, tax-exempt, other business, and beginning in April 2020, PPP loans. In addition, we originate stock secured loans, other secured loans and unsecured loans.

As a result of COVID-19, we provided loan modifications to borrowers experiencing financial difficulties, which are not considered TDRs. Such loan modifications as of December 31, 2020 were $1.3 billion and represented 1.1% of total loans.

Single Family. Our single family loans are secured by single family detached homes, condominiums, cooperative apartments and two-to-four unit properties. Many of our borrowers have high liquidity and substantial net worth. Our single family loans include loans that have an initial interest-only period. Subsequent to the initial interest-only period, these loans fully and evenly amortize until maturity. Additionally, we offer specific loan programs for first-time homebuyers and also to borrowers with low to moderate incomes. Our Eagle Community loan program offers special fixed rates to borrowers in historically underserved communities. As of December 31, 2020, single family real estate secured loans, including loans held for sale, represented $61.4 billion, or 54% of our total loan portfolio and had a weighted average LTV at origination of 57%. Due to our larger than average loan commitment size ($1.0 million based on outstanding loans at December 31, 2020), the number of single family loans originated by us is relatively small (approximately 22,000 for 2020), allowing our relationship managers and the executive loan approval team of 36 Executive Loan Committee members to carefully review loans as part of our credit approval process and provide high quality service to each client. Repeat clients or their direct referrals are the most important source of our loan originations.

Home Equity Lines of Credit. We offer HELOCs consisting of loans secured by first or second deeds of trust on primarily owner-occupied primary residences. The majority of these lines are in a secured position behind a first mortgage originated by us or in a first-lien position. As of December 31, 2020, HELOCs were $2.4 billion, or 2% of our total loan portfolio. As of December 31, 2020, the average commitment size of HELOCs was approximately $532,000, and the weighted average CLTV including the first residential mortgage, if any, at origination was approximately 50%.

Single Family Construction. Our single family construction loan portfolio includes loans to individual clients for the construction and ownership of single family homes, primarily in our California and New York markets. These loans are typically disbursed as construction progresses and can be converted into a permanent mortgage loan once the property is occupied. As of December 31, 2020, single family construction loans were $787.9 million, or 1% of our total loan portfolio. As of December 31, 2020, the average single family construction loan commitment size was approximately $3.6 million, and the weighted average LTV at origination was 57%.

Multifamily. Loans secured by multifamily properties are predominantly for established buildings in the urban neighborhoods of our markets. The buildings securing our multifamily loans are, generally, seasoned operating properties with proven occupancy, rental rates and expense levels. The neighborhoods tend to be densely populated; the properties are close to employment opportunities; and rent levels are appropriate for the target occupants. Generally, the borrowers are property owners who are experienced at managing these properties. We typically have recourse directly against the borrower on these loans due to receiving a personal guaranty from the borrower. As of December 31, 2020, multifamily loans were $13.8 billion, or 12% of our total loan portfolio. As of December 31, 2020, the average multifamily mortgage loan commitment size was approximately $2.8 million, and the weighted average LTV at origination was approximately 51%.

Commercial Real Estate. We originate commercial real estate loans, primarily to existing clients. We typically have recourse directly against the borrower on these loans and receive a personal guaranty from the borrower. We are primarily an urban lender. The real estate securing our existing commercial real estate loans includes a wide variety of property types, such as mixed-use residential/commercial, retail properties, office buildings, office/warehouses, hotels, motels and healthcare facilities. At the time of loan closing, the properties are generally completed and occupied. As of December 31, 2020, commercial real estate loans were $8.0 billion, or 7% of our loan portfolio. As of December 31, 2020, the average commercial real estate loan commitment size was approximately $3.3 million, and the weighted average LTV at origination was approximately 46%.

Multifamily/Commercial Construction. Our multifamily/commercial construction loan portfolio includes loans for the construction and ownership of other types of properties other than owner-occupied single family loans. These loans are typically disbursed as construction progresses and can be converted into a permanent mortgage loan once the property is occupied. As of December 31, 2020, multifamily/commercial construction

loans were $2.0 billion, or 2% of our loan portfolio. As of December 31, 2020, the average multifamily/commercial construction loan commitment size was approximately $8.9 million, and the weighted average LTV at origination was 53%.

Business. Business loans include capital call lines of credit, tax-exempt, other business and PPP loans. Business loans provide funding for investment opportunities, bridge capital calls from investors, and meet the working capital cash flow requirements and various other financing needs of our business and non-profit clients. The business loan portfolio is comprised primarily of capital call lines to private equity and venture capital funds, and loans to independent schools and other non-profit organizations, which include social service organizations, the performing arts, museums, historical societies and community foundations. In addition, we provide operating lines of credit and term loans to other business clients to meet their working capital needs. Beginning in April 2020, the Bank became a lender under the PPP to provide loans to small businesses impacted by COVID-19 for payroll costs and certain operating expenses. PPP loans are 100% guaranteed by the SBA and additionally may be purchased and forgiven by the SBA if the borrower uses the proceeds for eligible expenses in accordance with program requirements for forgiveness. As of December 31, 2020, business loans and lines of credit were $16.7 billion, or 15% of total loans outstanding. Of this total, $9.7 billion was in the form of lines of credit. The utilization rate for these lines of credit was 38.2% at December 31, 2020.

Other Loans. Other loans primarily consist of stock secured loans, which are loans secured by eligible marketable securities, as well as other secured loans from the professional loan program, which offer individuals an ability to borrow for capital and partnership requirements. As of December 31, 2020, stock secured and other secured loans totaled $4.3 billion, or 4% of our loan portfolio. In addition, other loans include household debt refinance loans, which consist of term loans and personal lines of credit, which are unsecured loans made to refinance existing household debt. As of December 31, 2020, unsecured loans totaled $3.1 billion, or 3% of our loan portfolio.

Underwriting

We have developed disciplined underwriting standards that have remained consistent through varying business cycles. We seek to diversify our loans among market areas, loan types and industries. Our underwriting standards include a matrix of approval requirements that vary depending on the size and type of loan and our aggregate exposure to the borrower. The underwriting process is intended to assess the prospective borrower's credit standing, the ability to repay and the value and adequacy of any collateral. To assess the borrower's ability to repay, we analyze the borrower's cash flow, liquidity, credit standing, employment history and overall financial condition. We evaluate our borrowers who choose adjustable-rate loans at a rate that exceeds the initial start rate. This allows us to make a determination as to whether the borrower is able to make higher loan payments in the event that interest rates increase subsequent to origination. We do not originate loans with "teaser" rates. We do not originate single family loans with the characteristics typically described as "subprime" or "high cost," such as loans made to borrowers with little or no cash reserves and poor or limited credit using limited income documentation. Over the past two years, the home loans originated by us had a weighted average credit score of 769. In addition, many of our borrowers have high liquidity and substantial net worth. We underwrite home loans using full documentation.

The median attributes of clients who have obtained home loans from us over the last two years are as follows:

	Median
Loan Size	$ 750,000
LTV	59%
Liquidity	$ 580,000
Credit Score	777

Our loan origination policies and consistent underwriting standards have resulted in a low historical loan loss experience. Since our inception in 1985, we have originated $171.6 billion of single family residential loans (including HELOCs) and have experienced cumulative net loan losses of only $42.0 million, or 2 bps, in 35 years (including losses on loans sold).

Our loan charge-off experience on all loan types for the last fifteen years (as reported in our financial statements) is presented in the following table. From 2009 through 2020, net loan losses include charge-offs against the ACL and charge-offs recorded as a reduction in unaccreted discounts established in purchase accounting.

	Net Charge-Offs (Recoveries)	
($ in millions)	Ratio [1]	Amount
Year ended December 31:		
2020	0.00%	$2.4
2019	0.01%	$4.6
2018	0.00%	$3.0
2017	0.00%	$0.9
2016	0.00%	$1.9
2015	0.01%	$2.1
2014	0.01%	$2.2
2013	0.05%	$14.2
2012	0.01%	$1.9
2011	0.03%	$5.2
2010	0.09%	$16.3
2009	0.48%	$84.1
2008	0.08%	$11.9
2007	0.01%	$0.9
2006	(0.06)%	$(4.4)

(1) Represents net charge-offs (recoveries) to average loans during each year.

Our charge-off ratio was less than 0.5% of average loans at its highest in 2009, and net charge-offs have averaged 3 bps of average loans outstanding, per year, over the past fifteen years.

Credit Risk Management

Credit risk management involves a partnership between our relationship managers, business bankers and our credit approval and credit administration personnel. We conduct weekly loan meetings, attended by nearly all of our senior management, relationship managers, related loan production staff and credit administration staff, at which credit risk management is frequently discussed. Our compensation program for our relationship managers has included meaningful credit claw back provisions since 1986 on all loan originations to encourage our personnel to avoid and monitor for credit delinquency issues, which we believe leads the relationship manager to focus on high quality credit consistent with our strategic focus on asset quality.

We perform regular monitoring and annual reviews of our loan portfolio to identify and evaluate any deterioration in primary and/or secondary sources of repayment, including evaluations of the borrower's financial condition and value of the collateral. Updates to risk grades are made, as needed, upon completion of reviews. Relationship managers are encouraged to bring potential credit issues to the attention of credit administration personnel in a timely manner.

For loans that are criticized or classified, the Bank's Special Assets Committee reviews loan grades, reserves and accrual status on a quarterly or more frequent basis. This review includes an evaluation of the market conditions, the property's trends, the borrower and guarantor status, the level of reserves required and loan accrual status. Additionally, we have an independent, third-party review performed on our loan grades and our credit administration functions each year. The results of the third-party review are presented to the Audit Committee of the Board. These asset review procedures provide management with additional information for assessing and affirming our asset quality. In addition, for business and personal loans that are not secured by real estate, we perform frequent evaluations and regular monitoring.

Mortgage Banking Activities

Secondary Market Loan Sales

We have historically and regularly accessed the capital markets to sell into the secondary markets residential and, to a lesser extent, multifamily and commercial real estate loans that we originate. We sell loans on a non-recourse basis to provide funds for additional lending and to manage our asset/liability position. We retain all the loan servicing in order to maintain the primary contact with our clients and to generate recurring fee income. Secondary marketing has allowed us to make loans to clients during periods when deposit flows decline and when clients prefer loans with characteristics that we choose not to retain in our loan portfolio.

We transact loan sales through whole loan sales on a flow basis and bulk loan sales. Whole loan sales generally focus on intermediate-term hybrid ARM loans and longer-term fixed-rate loans and are typically made to specific investors according to predetermined underwriting standards. We have historically sold whole loans to Fannie Mae, Freddie Mac and various institutional purchasers such as investment banks, real estate investment trusts, mortgage conduits and other financial institutions. In addition, in 2020, we sold single family loans through our first sponsored securitization since 2002.

Bulk sales provide an opportunity for us to take advantage of market opportunities for different products and are done either on an auction basis or negotiated with a single investor.

In 2020, we sold $1.2 billion of loans, compared to $289.0 million in 2019 and $1.2 billion in 2018. We use loan sales in the ordinary course of business to help provide a full range of lending options for our clients, while also managing asset growth and interest rate risk.

Loan Servicing

We have historically retained the servicing on substantially all loans sold to institutional investors, thereby generating ongoing servicing revenues and maintaining client relationships. Loan servicing activities include collecting and remitting loan payments, accounting for principal and interest, responding to client inquiries, holding escrow (impound) funds for payment of taxes and insurance, making inspections as required of the mortgaged property, collecting amounts due from delinquent mortgagors, supervising foreclosures in the event of unremedied defaults and generally administering the loans for the investors to whom they have been sold. We believe that the quality of our loan servicing capability is a factor that permits us to sell our loans in the secondary market.

Our mortgage loan servicing portfolio was $7.1 billion as of December 31, 2020. Approximately 52% of total loans serviced as of December 31, 2020 had outstanding balances greater than $765,600, which is the maximum conforming loan amount for a single family loan. Of the total loans serviced as of December 31, 2020, approximately 49% were fixed-rate loans with a weighted average contractual rate of 3.58%, 31% were hybrid ARMs with a weighted average contractual rate of 3.18%, and 20% were adjustable-rate loans with a weighted average contractual rate of 2.47%. The weighted average contractual rate of the total loans serviced was 3.23% as of December 31, 2020. The weighted average servicing fee collected was 0.25% for 2020. Our servicing portfolio is reduced by normal amortization and prepayment or liquidation of outstanding loans. Many of the existing servicing programs provide for principal and interest payments to be remitted by us, as servicer, to the investor, whether or not received from the borrower. Upon ultimate collection, including the sale of foreclosed property, we are entitled to recover any such advances plus late charges before paying the investor. We believe our collection and foreclosure procedures comply with all applicable laws and regulations. We currently have a relatively low number of loans in the process of foreclosure and have not needed to suspend any of our foreclosure activities.

For mortgage loans in our servicing portfolio, borrowers who are experiencing financial difficulty as a result of COVID-19 may request a modification. As of December 31, 2020, such modifications in our mortgage servicing portfolio totaled $53.5 million.

Deposits

As of December 31, 2020, we held $114.9 billion of total deposits, and deposit funding comprised 88% of total liabilities. Total deposits have grown at a CAGR of 19% over the past five years, as a result of growth in existing client relationships, client referrals, our general marketing initiatives, growth in services offered to Bank clients and the service skills of our employees. Based on the most recent publicly available regulatory filings, as of December 31, 2020, we were the 17th largest bank in the nation measured by total deposits.

As of December 31, 2020, our deposit base consisted of 67% in checking deposits, 25% in money market checking, savings and passbook deposits, and 8% in CDs. Our deposit base is also well-diversified geographically and by client type. As of December 31, 2020, 44% of our total deposits came from Northern California, 22% from New York, 14% from Southern California, 11% from Boston, 8% from wealth management sweep programs and 1% from other deposits. As of December 31, 2020, 57% of our total deposits were from business clients and 43% of our total deposits were from consumer clients.

Core deposits, which include checking accounts, money market accounts, savings accounts and CDs (excluding CDs greater than $250,000 and all brokered deposits), provide a stable source of low-cost funding. Our checking and savings deposits, which represent the majority of core deposits, have grown at a CAGR of 20% for the past five years.

Our deposit base reflects our value-added strategy of introducing deposits to loan clients, wealth management clients, businesses and non-profit organizations through the following channels: (1) Preferred Banking deposits, which are placed by clients who enter into deposit relationships directly with a relationship manager, business banker, preferred banker or wealth management professional; (2) deposits from Preferred Banking Offices, which are retail locations that gather deposits and service all of our clients; (3) wealth management sweep deposits, which primarily consist of deposits swept from clients' brokerage or other investment accounts; and (4) other deposits, which primarily consist of brokered deposits, municipal deposits, and other deposits that are not attributable to any specific deposit location. As of December 31, 2020, we held $68.8 billion of deposits associated with our Preferred Banking activities, $35.0 billion of deposits associated with our Preferred Banking Offices, $9.6 billion of wealth management deposits generated through our sweep programs, and $1.6 billion of other deposits.

Preferred Banking is a substantial source of deposits. Preferred Banking is located in our key markets with specialized personnel that primarily support the clients of our relationship managers, business bankers and wealth management professionals. Preferred Banking deposits have grown at a CAGR of 20% in the last five years.

Preferred Banking Offices, which are typically located in dense urban areas or supporting suburban areas, have also been a strong source of deposit growth in both established and new locations. Of our existing Preferred Banking Offices, 84% had total deposits over $200 million at December 31, 2020.

Wealth management sweep deposits and other deposits have also contributed to deposit growth during 2020. This growth was the result of the continued expansion of our wealth management activities and overall growth in the franchise.

Private Wealth Management Activities

A primary focus of our general business strategy has been to expand our capabilities for providing value-added services to a targeted client base. We attract wealth management clients by hiring additional wealth management professionals and providing superior client service. In addition, our relationship-based approach allows us to grow existing client relationships, attract referrals from existing clients and attract banking clients that have been satisfied with our mortgage loan origination products and services and deposit services, which provides us with an opportunity for our relationship managers to introduce other products and services, such as wealth management. Wealth management AUM and AUA were, in aggregate, $194.5 billion at December 31, 2020.

Investment Management Services. We provide traditional full-service portfolio management and customized client portfolios through FRIM. When appropriate and desired by a client, our advisors use third-party investment managers or funds through an open architecture platform. We offer integrated financial and estate planning services, endowment management services, and management of defined benefit and defined contribution plans. We also offer the FRC Founders Index Fund℠, as well as Eagle Invest, an online automated investment management service that offers an alternative to the full-service version of advisory services. AUM for investment management services were $83.6 billion as of December 31, 2020.

Brokerage and Investment Activities. For full-service brokerage clients, we perform brokerage and investment activities through FRSC. We employ wealth managers to offer brokerage services for equity securities, mutual funds, exchange-traded funds, unit investment trusts, alternative investments, hedging strategies, treasury securities, municipal bonds, other fixed income securities, money market mutual funds and other shorter-term liquid investments at the request of clients or their financial advisors. We also offer online services for self-directed brokerage accounts for those clients who choose to transact in this manner. Our online brokerage services allow clients to place orders for equities, mutual funds and listed options. As of December 31, 2020, AUA for brokerage and investment activities were $97.1 billion. Such assets were held in brokerage or managed accounts. Customer accounts at FRSC are cleared on a fully-disclosed basis by FRSC's clearing agent, Pershing LLC ("Pershing"), which has custody of FRSC accounts. Pershing is a wholly-owned subsidiary of The Bank of New York Mellon Corporation and is not affiliated with the Bank.

Insurance Services. We offer insurance solutions through FRSC and FRIM. The following insurance products are offered: life insurance, annuities, disability and long-term care. Insurance fees consist of initial commissions when a policy is sold and subsequent commissions each year that a policy is renewed. The Bank does not retain any underwriting risk from the sale of insurance products.

Trust Company. First Republic Trust Company, a division of the Bank, operates in California, Oregon, Washington, New York, Massachusetts, Florida and Connecticut and specializes in personal trust and estate administration activities. In addition, custody services are also provided. FRTC Delaware, a subsidiary of the Bank, operates in Delaware. FRTC Wyoming, a subsidiary of the Bank, operates in Wyoming. First Republic Trust Company, FRTC Delaware and FRTC Wyoming draw new trust clients from our banking and wealth management client base, as well as from outside of our organization. The Trust Company has gathered $13.8 billion of assets under custody or administration as of December 31, 2020.

Foreign Exchange. We earn fees from transacting foreign exchange business on behalf of our clients. We execute foreign exchange trades with clients and then offset those trades with other financial institution counterparties, such as major investment banks or large commercial banks. We do not retain significant foreign exchange risk associated with these transactions, as the trades with the client and the financial institution counterparty are matched on our books. We do retain credit risk, both to the client and the counterparty institution, which is evaluated and managed by us in the normal course of our operations. In addition, we have foreign exchange contracts associated with client deposits denominated in various foreign currencies.

Information Technology Systems

We devote significant resources to maintain modern, efficient, secure and scalable information technology systems. We outsource most of our processing and services, which allows us to select the best provider in each market niche, reduce our costs by leveraging the vendors' economies of scale and expand our capabilities as needed. We use several different vendors for our main systems so that we are not tied to a single provider and can upgrade systems individually without significant disruption. We continue to invest in enhancing our mobile and online banking platform in order to increase our efficiency and to improve the overall client experience. In 2020, our information systems expenses were $298.6 million.

We are committed to protecting our clients' data. We closely monitor information security at First Republic and in the financial services sector generally for trends and new threats, including cybersecurity risks. We have initiatives to continuously improve the security and privacy of our systems and data. To protect against disasters, we have backup data centers on the west and east coasts and leverage resilient cloud services when available. We have established a committee of the Board, which oversees our cybersecurity and general technology efforts.

Competition

We face strong competition in gathering deposits, making loans and obtaining client assets for management or administration by investment management, trust and brokerage operations. We compete for deposits and loans by seeking to provide a higher level of personal service than is generally offered by larger and non-bank competitors, by advertising, and by offering competitive interest rates. We generally do not have a dominant market share of the total deposit gathering or lending activities in the areas in which we conduct operations.

Our management believes that our most direct competition for deposits comes from commercial banks, savings and loan associations, credit unions, money market funds and brokerage firms, nationwide and regional banks specializing in private banking and service-focused community banks that target the same clients we do. In addition, our cost of funds fluctuates with market interest rates and may be affected by higher rates being offered by other financial institutions. During certain interest rate environments, additional significant competition for deposits may be expected to arise from corporate and government debt securities and money market mutual funds.

Our competition in making loans comes principally from commercial banks, mortgage companies, savings and loan associations, insurance companies and full service brokerage firms, particularly large, nationwide institutions. Many of the nation's largest commercial banks and mortgage companies have a significant number of branch offices in the areas in which we operate. Aggressive pricing policies of our competitors on new ARMs, intermediate-fixed rate and fixed-rate loans have in the past resulted in a decrease in our mortgage loan origination volume and a decrease in the profitability of our loan originations. We compete for loans principally through the quality of service we provide to borrowers, real estate brokers and loan agents, while seeking to maintain competitive interest rates, loan fees and other loan terms.

Our competition in wealth management services comes primarily from commercial banks, trust companies, mutual funds, investment advisory firms, brokerage firms, investment companies, insurance companies, and other financial services companies, as well as private equity firms, venture capital, hedge funds and other alternative investment strategies, and Internet-based companies. Competition is especially keen in our principal markets because numerous well-established and successful investment advisory and brokerage firms exist throughout each of the markets in which we operate. We compete for wealth management clients through the scope and quality of products and services offered, level of investment performance, price and client service.

Regulatory restrictions on interstate bank branching and acquisitions and on banks providing a broader array of financial services, such as securities underwriting and dealing and insurance, have been reduced or eliminated. The availability of banking and investment advisory services over the Internet and on mobile devices continues to expand. Changes in laws and regulations governing the financial services industry cannot be predicted; however, past legislation has served to intensify our competitive environment.

Human Capital Management

Our success is predicated on our service-centric culture and business model, which is executed by our employees. We seek to empower our workforce and create an environment where employees feel engaged, respected and rewarded. To attract, develop and retain top, diverse talent, we strive to promote an inclusive, safe and healthy workplace, with opportunities for our employees to grow and develop in their careers. We also offer competitive compensation and benefits programs.

We leverage internal and external resources to attract highly skilled and talented individuals who can meet the dynamic needs of our business while maintaining our culture and values. We support the long-term career aspirations of our employees through education, personal and professional development. As of December 31, 2020, we had 5,483 full-time equivalent employees, including temporary employees and independent contractors, compared to 4,812 full-time equivalent employees as of December 31, 2019, an increase of 14%. Our 5-year average voluntary employee turnover, excluding temporary employees and independent contractors, from 2016-2020, was 7%.

Since First Republic was founded in 1985, diversity has been at the core of our business. We value diversity of perspective, expertise, background and tenure, as well as cultural, sexual orientation, ethnic and gender identity. We believe that hiring and developing a diverse workforce at all levels of the organization is essential to creating long-term sustainability of diversity and inclusion. We are also focused on increasing education, mentorship, and understanding within our workforce to promote racial equity.

Our compensation program is designed to attract and reward talented individuals who help us execute against our objective to provide extraordinary service, assist in the achievement of our strategic goals, and create long-term value for our shareholders. In addition to cash and equity compensation, we also offer comprehensive benefits for our employees to ensure they and their families have the support they need for financial, physical, and emotional well-being at every stage in life.

We are committed to supporting our communities through lending, investing and volunteering, with a focus on affordable housing, financial literacy and education. We also embrace responsible practices for energy conservation and environmental sustainability as part of our effort to reduce our carbon footprint.

While COVID-19 disrupted our way of working in 2020, our number one priority has been the health and safety of our employees, their families, our clients, and our communities. Most of our employees have been working remotely since early 2020. We have modified hours in our preferred banking offices and implemented rotational programs for employees whose roles require them to work in the office. We have also made significant investments in technology to enable a seamless transition to remote working without disruption for our employees and clients. Additionally, we follow guidelines established by health experts and government officials and closely follow state, city, and local authorities. We will also continue to follow the guidance of expert resources such as the Centers for Disease Control ("CDC") and World Health Organization ("WHO").

Supervision and Regulation

Described below are the material elements of selected laws and regulations applicable to us and our subsidiaries. The descriptions are not intended to be complete and are qualified in their entirety by reference to the full text of the statutes and regulations described. Changes in applicable laws or regulations, and in their interpretation and application by regulatory agencies and other governmental authorities, cannot be predicted, and may have a material effect on our business, results of operations, competitive position or financial condition of the business, or results of operations or financial condition of our subsidiaries.

Overview

We are subject to extensive federal and state banking laws, regulations and policies that are intended primarily for the protection of clients, depositors and other consumers, the DIF, and the banking system as a whole; not for the protection of our other creditors and shareholders. We are examined, supervised and regulated by the DFPI and the FDIC (our primary federal regulator) as an insured state bank without a holding company that is not a member of the Federal Reserve. The statutes enforced by, and regulations and policies of, these agencies affect most aspects of our business, including prescribing permissible types of loans and investments, the amount of required reserves, requirements for branch offices, the permissible scope of our activities and various other requirements. Although we are not a member of the Federal Reserve, we are subject to certain regulations of the Board of Governors of the Federal Reserve, such as those dealing with availability of funds and check clearing activities (Regulation CC), margin lending (Regulations T and U) and establishment of reserves against deposits (Regulation D). Additionally, our offices in states other than California are subject to limited supervision and regulation by the applicable state bank regulatory agency. In addition, certain of our subsidiaries are subject to regulation, supervision and examination by self-regulatory organizations, such as FINRA and NFA, and other regulatory authorities, including the SEC and state regulatory agencies, and our insurance activities are subject to licensing and regulation by state insurance regulatory agencies.

Our deposits are insured by the FDIC to the fullest extent permissible by law. As an insurer of deposits, the FDIC issues regulations, conducts examinations, requires the filing of reports and generally supervises the operations of all institutions to which it provides deposit insurance. The approval of the FDIC is required for certain transactions in which we may engage, including any merger or consolidation by us (including the acquisition of another bank), a change in control over us, or the establishment or relocation of any of our branch offices. In reviewing applications seeking approval of such transactions, the FDIC may consider, among other things, the competitive effect and public benefits of the transactions, the capital position, financial and managerial resources and future prospects of the organizations involved in the transaction, the risks to the stability of the U.S. banking or financial system, the applicant's performance record under the CRA (see "—Community Reinvestment Act and Fair Lending" below) and the effectiveness of the organizations involved in the transaction in combating money laundering activities. The FDIC also has the power to prohibit these and other transactions even if approval is not required, and could do so if we have otherwise failed to comply with all laws and regulations applicable to us. We are also subject to supervision, regulation, examination and enforcement by the CFPB with respect to consumer protection laws and regulations.

Proposals to change the laws and regulations governing the banking industry are frequently introduced in Congress, in the state legislatures and before the various banking regulatory agencies. The EGRRCPA, which was enacted in May 2018, made several changes to banking laws, and mandates the federal banking agencies to make certain changes to current regulations. The federal banking agencies have issued final or proposed rules to implement the changes mandated by the EGRRCPA. Existing and future rulemakings have resulted, and may continue to result, in a significant cost of compliance.

Provisions of the Dodd-Frank Act, and increased expectations of our banking regulators more generally, that may have a material effect on our results of operations include, among others, the imposition of additional underwriting standards on mortgages and increased expenses due to heightened regulatory requirements and standards imposed on larger institutions, including: internal audit standards, enterprise risk management standards, and enhanced compliance and standards for internal controls relating to AML, the BSA and other matters. As a result of recent political developments with changes in Congress as well as changes in the leadership of the federal financial regulatory agencies in the United States, banking laws and regulations, including regulations mandated under the Dodd-Frank Act and the EGRRCPA could be further amended, although the timing and extent to which this may occur is presently uncertain. In addition, the results of the U.S. national election and the advent of a new presidential administration carry the potential to change the regulatory structure under which we operate in ways that may be difficult to anticipate and with effects that may be hard to predict.

Continued growth of the Bank may subject us to additional regulatory requirements, including those triggered by progressively larger consolidated asset thresholds, those imposed as a prudential matter by the FDIC, and those triggered by increased activities in certain areas.

California Law

California law governs the licensing and regulation of California commercial banks, including organizational and capital requirements, fiduciary powers, investment authority, branch offices and electronic terminals, declaration of dividends, changes of control and mergers, out of state activities, interstate branching and banking, debt offerings, borrowing limits, limits on loans to one obligor, liquidation, sale of shares or options in the Bank to its directors, officers, employees and others, the purchase by the Bank of its own shares, and the issuance of capital notes or debentures.

Recently, the California Governor signed into law legislation changing the name of the California Department of Business Oversight to the DFPI. The DFPI provides protection to consumers and services to businesses engaged in financial transactions, and is charged with our supervision and regulation.

Under California law, due to an exemption applicable to the Bank, there is no interest rate limitation on loans originated for personal, family or household purposes. However, for certain types of secured loans, California law imposes minimum collateral requirements. In addition, there are certain term and amortization restrictions on loans secured by real property.

Unsecured loans to one person generally may not exceed 15% of the sum of a bank's capital stock, ACL on loans and capital notes and debentures, and both secured and unsecured loans to one person (excluding certain secured lending and letters of credit) at any given time generally may not exceed 25% of the sum of a bank's capital stock, ACL on loans and capital notes and debentures. Except for limitations on the amount of loans to a single borrower, loans secured by real or personal property may be made to any person without regard to the location or nature of the collateral. We are required to invest our funds in accordance with limitations under California law and may only make investments that are permissible investments for banks, subject to any limitations under any other applicable law.

Under California law, the amount a bank generally may borrow may not exceed its shareholders' equity without the consent of the DFPI, except for borrowings from the FHLB and the Federal Reserve Bank.

In addition to remedies available to the FDIC (which are discussed below), the Commissioner may take possession of a bank if certain conditions exist such as insufficient shareholders' equity, unsafe or unauthorized operations, or violation of law.

In response to COVID-19, state governments, including California's state government, have adopted, through a mix of executive orders, regulations and judicial orders, temporary bans on evictions and foreclosures, and flexibility regarding rental payments, such as the use of security deposits to pay rent. The Governor of California has issued a number of executive orders that include shelter-in-place requirements, mortgage forbearance requirements, and eviction moratoriums, and also has issued guidance to banks encouraging them to extend relief to customers financially impacted by the pandemic. We expect that there will be continuation of these orders, or similar orders issued, throughout the duration of COVID-19.

Reserve Requirement Ratios

In March 2020, the Federal Reserve issued an interim final rule to reduce reserve requirement ratios to zero percent, which eliminated reserve requirements for depository institutions. In December 2020, the Federal Reserve adopted a final rule amending Regulation D to lower reserve requirement ratios on transaction accounts (demand deposit accounts and negotiable order of withdrawal accounts) maintained at depository institutions to zero percent. Reserve requirements for other types of deposit accounts were eliminated in 1990. Therefore, effective in March 2020, the Bank was not required to maintain a minimum cash balance at the Federal Reserve Bank.

Deposit Account Restrictions

In April 2020, the Federal Reserve issued an interim final rule amending Regulation D, which removed the six-per-month limit on convenient transfers from the "savings deposit" definition (which includes money market deposit accounts). The interim final rule allowed banks to suspend enforcement of the six transfer limit and to allow their customers to make an unlimited number of convenient transfers and withdrawals from their savings deposits. Although adopted to address the economic and financial market conditions relating to COVID-19, this amendment is now permanent since the Federal Reserve adopted the rule as final in December 2020. Although no longer required, the Bank has elected to keep in place the six transfer limit formerly imposed by Regulation D. However, the Bank has currently temporarily suspended the six transfer limit in connection with its other COVID-19 relief efforts.

Capital Requirements

The Bank is subject to comprehensive capital adequacy requirements of the FDIC to ensure that the Bank operates in a safe and sound manner, and to protect against losses that may be incurred by the Bank. The FDIC, along with the other federal banking agencies, have risk-based capital adequacy rules, regulations and guidance intended to provide a measure of capital adequacy that reflects the degree of risk associated with a banking organization's operations that are reflected on its balance sheet, as well as off-balance sheet activities. The capital adequacy requirements are set forth in the federal banking agencies capital rules (the "Basel III Capital Rules"), which implement capital standards established by the Basel Committee, commonly referred to as the Basel III capital framework ("Basel III"), as well as certain provisions of the Dodd-Frank Act. Under the Basel III Capital Rules, the Bank is subject to a minimum CET1 capital ratio of 4.5%, a minimum Tier 1 capital ratio of 6.0% and a minimum total capital ratio of 8.0%. FDIC-supervised institutions, such as the Bank, are also subject to a Tier 1 leverage ratio of 4.0%.

In July 2019, the federal banking agencies issued the Simplifications Rule, which was adopted in April 2020, simplifying certain aspects of the Basel III Capital Rules. Under the final rule, non-advanced approaches banking organizations, such as the Bank, will apply a simpler regulatory capital treatment for MSAs; certain DTAs arising from temporary differences; and investments in the capital of unconsolidated financial institutions other than those currently applied that are includable in regulatory capital.

The Basel III Capital Rules provide for a number of deductions from and adjustments to CET1. These include, for example, the requirement that (i) MSRs, (ii) DTAs arising from temporary differences that could not be realized through net operating loss carrybacks and (iii) investments in non-consolidated financial entities be deducted from CET1 to the extent that such individual category exceeds 25% of CET1 based on the Simplifications Rule.

During 2020, the federal banking agencies adopted a rule ("CECL Capital Rule") that provides banking organizations the option to delay for two years an estimate of CECL's effect on regulatory capital, relative to the incurred loss methodology's effect on regulatory capital, followed by a three-year transition period. Therefore, a financial institution may elect to phase in the day-one adverse effects of CECL adoption and the impacts of CECL transitional amounts to its regulatory capital calculations over a three-year transition period or a five-year transition period beginning on the first day of the fiscal year in which the financial institution adopts CECL. Effective beginning the first quarter of 2020, the Bank elected to adopt the CECL Capital Rule and delay the estimated impact of CECL on its regulatory capital over a five-year transition period ending December 31, 2024.

The Bank is also subject to a "capital conservation buffer" of 2.5% of RWAs under the Basel III Capital Rules. The capital conservation buffer is designed to absorb losses during periods of economic stress. Banking institutions with a CET1 capital ratio above the minimum requirement but below the capital conservation buffer will face constraints on dividends, equity repurchases and compensation based on the amount of the shortfall and eligible retained income (since March 2020, defined as the greater of net income for the four calendar quarters preceding the current calendar quarter, net of any distributions and associated tax effects not already reflected in net income, and the average of net income over the preceding four quarters).

Under the Basel III Capital Rules, the effects of certain accumulated other comprehensive income or loss items are not excluded from determining regulatory capital ratios; however, non-advanced approaches banking organizations, including the Bank, were permitted to make a one-time permanent election to continue to exclude these items. The Bank has elected to exclude these items in order to avoid significant variations in the level of capital depending upon the impact of interest rate fluctuations on the fair value of its available-for-sale debt securities portfolio.

The Basel III Capital Rules prescribe a standardized approach for risk weightings that depend on the nature of the assets, generally ranging from 0% for U.S. government and agency securities, to 600% for exposures to leveraged investment funds, and result in higher risk weights for certain securitization exposures. The Simplifications Rule also requires that the Bank assign a 250% risk weight to the amount of MSRs or temporary difference DTAs not deducted from CET1 capital. In September 2020, the FDIC also adopted a final rule to apply a zero percent risk weight to all PPP covered loans that are not pledged to the PPPLF. The Bank does not participate in the PPPLF, and therefore, applies a zero percent risk weight to PPP loans.

In determining the capital levels that we are required to maintain, the federal banking agencies do not follow GAAP in all respects and have special rules that may have the effect of reducing the amount of capital they will recognize for purposes of determining our capital adequacy.

In December 2017, the Basel Committee published standards that it described as the finalization of the Basel III post-crisis regulatory reforms (the standards are commonly referred to as “Basel IV”). Among other things, these standards revise the Basel Committee’s standardized approach for credit risk (including recalibrating risk weights and introducing new capital requirements for certain “unconditionally cancellable commitments”) and provide a new standardized approach for operational risk capital. Under the Basel framework, these standards will generally be effective on January 1, 2023, with an aggregate output floor phasing in through January 1, 2028. Under the current U.S. Basel III rules, operational risk capital requirements and a capital floor apply only to advanced approaches institutions, and not to the Bank. The impact of Basel IV on the Bank will depend on the manner in which it is implemented by the FDIC.

In connection with the capital requirements, the FDIC has adopted regulations and guidance that mandate consideration of concentrations of credit risk and risks from non-traditional activities, as well as an institution’s ability to manage those risks, when determining the adequacy of an institution’s capital. This evaluation is part of the institution’s regular safety and soundness examination. The FDIC’s regulations also require consideration of general market risk, including interest rate risk (when the interest rate sensitivity of an institution’s assets does not match the sensitivity of its liabilities or its off-balance sheet position), in the evaluation of a financial institution’s capital adequacy.

Allowance for Credit Losses

Experience in the banking industry indicates that a portion of our loans may become delinquent, and that some of these loans may be only partially repaid or may never be repaid at all. Despite our underwriting criteria, we experience losses for reasons beyond our control, including general economic conditions. A prolonged period of economic recession or other adverse economic conditions may result in an increase in nonpayment of loans, a decrease in collateral value and an increase in our ACL on loans. Additionally, the federal banking agencies periodically review the loan portfolios and related ACL on loans of banks, including us, and may require banks to increase their provision for credit losses or to recognize further loan charge-offs based upon their judgments, which may be different from the underlying calculations of the banks.

In May 2020, the federal banking agencies issued a final interagency policy statement related to CECL, which aligns interagency guidance with ASC 326, "Financial Instruments—Credit Losses." Specifically, the statement (1) updates concepts and practices from prior policy statements issued in December 2006 and July 2001 that remain relevant under ASC 326; (2) describes the appropriate CECL methodology, in light of ASC 326, for determining the ACL on financial assets measured at amortized cost and certain off-balance sheet credit exposures; and (3) describes the estimation of an ACL on an impaired available-for-sale debt security. The policy statement was effective on January 1, 2020 when the Bank adopted ASC 326.

COVID-19

Federal, state, and local governments continue to take steps to address the impact of COVID-19. On March 27, 2020, the U.S. Government enacted the CARES Act, which provides emergency assistance for individuals, families, and businesses affected by COVID-19, through the PPP, direct stimulus payments and opportunities for forbearance for certain loans. On December 27, 2020, the CAA was signed into law, extending certain provisions of the CARES Act, increasing funding for programs like PPP, and providing new forms of relief. There have also been a number of recent bank regulatory actions, including mandates requiring financial institutions to work constructively with borrowers affected by COVID-19. Federal moratoriums on evictions and foreclosures that were implemented during COVID-19 have generally been extended until March 31, 2021 and may be further extended if the adverse impact of COVID-19 on borrowers continues. In addition, states, including California, have adopted, through a mix of executive orders, regulations, and judicial orders, temporary bans on evictions and foreclosures, and flexibility regarding rental payments, such as the use of security deposits to pay rent.

Loan Modifications

The federal banking agencies and FFIEC issued interagency statements during 2020 regarding loan modifications (collectively referred to herein as "2020 Interagency Guidance"). The CARES Act, as amended by the CAA, allows entities to elect to suspend the GAAP requirements for qualifying loan modifications that would otherwise be considered TDRs. To be eligible for TDR accounting relief, under Section 4013 of the CARES Act, as amended by the CAA, a loan modification, including any subsequent modifications, must be related to COVID-19, executed on a loan that was not more than 30 days past due as of December 31, 2019, and executed between March 1, 2020, and the earlier of (1) 60 days after the end of the national emergency related to COVID-19 or (2) January 1, 2022. Short-term loan modifications, including any subsequent modifications, made on a good faith basis in response to COVID-19 for borrowers impacted by COVID-19 that do not qualify for TDR accounting relief under the CARES Act, as amended by the CAA, are also eligible for TDR accounting relief under the 2020 Interagency Guidance if the borrowers were current, or less than 30 days past due, as of the modification date. Loan modifications are considered short-term if the cumulative deferral period is six months or less. The 2020 Interagency Guidance also indicated that subsequent modifications not eligible under Section 4013 should be evaluated cumulatively when determining whether the additional modification is a TDR.

PPP Loans

The PPP was established under the CARES Act and subsequently amended by the Economic Aid Act under the CAA to provide loans guaranteed by the SBA to small businesses impacted by COVID-19 for payroll costs and certain operating expenses. PPP loans are forgiven if the borrower uses the proceeds for eligible expenses in accordance with program requirements for forgiveness and the amount forgiven is reduced under certain situations. The Bank is a participating lender of the PPP and began originating loans to eligible borrowers in April 2020. Among other items, the Economic Aid Act establishes additional PPP funding through March 31, 2021 to assist eligible small businesses that continue to face hardships during COVID-19.

Prompt Corrective Action and Other Enforcement Mechanisms

The Federal Deposit Insurance Act, as amended by the FDIA, requires the appropriate federal banking agency to take prompt corrective action to resolve the problems of insured depository institutions, including those that fall below one or more prescribed minimum capital ratios. The law requires each federal banking agency to promulgate regulations defining the following five categories in which an insured depository institution will be placed, based on the level of its capital ratios: well-capitalized, adequately capitalized, undercapitalized, significantly undercapitalized and critically undercapitalized.

Under the prompt corrective action provisions of the FDIA, an insured depository institution generally will be classified in the applicable category based on the capital measures indicated in the table below:

Capital Measure	Well-Capitalized	Adequately Capitalized	Undercapitalized	Significantly Undercapitalized
Tier 1 leverage ratio	5% or greater	4% or greater	Less than 4%	Less than 3%
CET1 ratio	6.5% or greater	4.5% or greater	Less than 4.5%	Less than 3%
Tier 1 risk-based capital ratio	8% or greater	6% or greater	Less than 6%	Less than 4%
Total risk-based capital ratio	10% or greater	8% or greater	Less than 8%	Less than 6%

An institution that is classified as "well-capitalized" based on its capital levels may be classified as "adequately capitalized," and an institution that is "adequately capitalized" or "undercapitalized" based upon its capital levels may be treated as though it were undercapitalized or significantly undercapitalized, respectively, 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. At each successive lower capital category, an insured depository institution is subject to progressively more restrictive constraints on operations, management and capital distributions, as the capital category of an institution declines. Failure to meet the capital requirements could also subject a depository institution to capital raising requirements. Ultimately, critically undercapitalized institutions (with tangible equity to total assets of 2% or less) are subject to the appointment of a receiver or conservator.

As of December 31, 2020, the Bank met all capital ratios requirements to be "well-capitalized" under the prompt corrective action requirements currently in effect.

In addition to measures taken under the prompt corrective action provisions, commercial banking organizations may be subject to potential enforcement actions by the federal banking agencies for unsafe or unsound practices in conducting their businesses or for violations of any law, rule, regulation, condition imposed in writing by the agency or written agreement with the agency. Enforcement actions may include the issuance of formal and informal agreements, the issuance of a cease-and-desist order that can be judicially enforced, the issuance of directives to increase capital, the imposition of civil money penalties, the issuance of removal and prohibition orders against institution-affiliated parties, the termination of insurance of deposits, the imposition of a conservator or receiver, and the enforcement of such actions through injunctions or restraining orders based upon a judicial determination that the agency would be harmed if such equitable relief was not granted.

Stress Testing

The EGRRCPA amended the Dodd-Frank Act to eliminate company-run stress testing requirements for financial institutions with less than $250 billion in total consolidated assets, effective as of November 2019. In October 2019, the FDIC issued a final rule to implement the EGRRCPA's stress testing requirements. As a result, we are no longer subject to the Dodd-Frank Act's company-run stress testing requirements, and the Bank will not be subject to the Dodd-Frank Act company-run stress testing requirements until it has $250 billion or more in total consolidated assets. Nevertheless, in the normal course of operations, the Bank periodically performs internal capital stress tests as part of its overall capital planning process.

Liquidity Rules

Historically, the regulation and monitoring of bank holding companies and bank liquidity has been addressed as a supervisory matter, without required formulaic measures. The Basel III framework requires bank holding companies and banks to measure their liquidity against specific liquidity thresholds that, although similar in some respects to liquidity measures historically applied by banks and regulators for management or supervisory purposes, going forward would be required explicitly by regulation. One requirement under the Basel III framework, referred to as the LCR requirement, is designed to ensure that a bank or bank holding company maintains an adequate level of unencumbered HQLA equal to its expected net cash outflow for a 30-day time horizon under a liquidity stress scenario. EGRRCPA and the implementing FDIC rule expanded the definition of HQLA to include liquid and readily-marketable municipal obligations. The other liquidity requirement under the Basel III framework, referred to as the NSFR requirement, is designed to promote more medium- and long-term funding of the assets and activities of banking entities over a one-year time horizon. In October 2020, the U.S. federal banking agencies adopted a final rule to implement the NSFR requirement. The LCR and NSFR requirements are considered enhanced prudential standards for large and systemic U.S. banking organizations, and are applied by the federal banking agencies consistent with the Tailoring Rules discussed below. The Bank, as a state-chartered non-member bank without a bank holding company, is not subject to the LCR or NSFR rules, because it has less than $250 billion in total consolidated assets, and less than $75 billion in the other risk-based categories. Nevertheless, we maintain on-balance sheet liquidity and a portfolio of HQLA.

Tailoring Rules

In October 2019, the federal banking agencies issued final rules under the EGRRCPA for tailoring the criteria for determining the applicability of capital and liquidity requirements for large U.S. banking organizations (the “Tailoring Rules”). The Tailoring Rules apply to banking organizations with total consolidated assets of $100 billion or more, with the most stringent requirements being applied to U.S. global systemically important banks as Category I institutions, and the least stringent requirements being applied to large domestic banking organizations with less than $250 billion in total consolidated assets or less than $75 billion in weighted short-term wholesale funding, off-balance sheet exposures, nonbank assets or cross-jurisdictional activities as Category IV banking organizations. Under the Tailoring Rules, a standalone bank without a holding company that is considered a Category IV banking organization, such as the Bank, is not subject to enhanced capital and liquidity standards like the LCR Rule. Continued growth of the Bank that results in the Bank exceeding the asset thresholds under the Tailoring Rules would result in more stringent capital and liquidity requirements for the Bank.

Safety and Soundness Standards

Guidelines adopted by the federal banking agencies pursuant to the FDIA establish general safety and soundness standards for depository institutions related to internal controls, vendor management, information security and cybersecurity, loan underwriting and documentation, and asset growth. Among other things, the FDIA limits the interest rates paid on deposits by undercapitalized institutions, restricts the use of brokered deposits, and limits the aggregate extensions of credit by a depository institution to an executive officer, director, principal shareholder or related interest. These standards have not limited our operations in any material way to date.

The federal banking agencies may require an institution to submit an acceptable compliance plan as well as have the flexibility to pursue other more appropriate or effective courses of action given the specific circumstances and severity of an institution’s noncompliance with one or more standards.

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.

Brokered Deposits

Section 29 of the FDIA and FDIC regulations limit the ability of an insured depository institution, such as the Bank, to accept, renew or roll over brokered deposits unless the institution is well-capitalized under the prompt corrective action framework described above, or unless it is adequately capitalized and obtains a waiver from the FDIC. In addition, less than well-capitalized banks are subject to restrictions on the interest rates they may pay on deposits. The characterization of deposits as "brokered" may result in the imposition of higher deposit assessments on such deposits. As mandated by the EGRRCPA, the FDIC adopted a final rule in February 2019 to include a limited exception for reciprocal deposits for FDIC-insured depository institutions that are well rated and well capitalized (or adequately capitalized and have obtained a waiver from the FDIC as mentioned above). Under the limited exception, qualified FDIC-insured depository institutions, like the Bank, are able to except from treatment as "brokered" deposits up to $5 billion or 20 percent of the institution's total liabilities in reciprocal deposits (which is defined as deposits received by a financial institution through a deposit placement network with the same maturity (if any) and in the same aggregate amount as deposits placed by the institution in other network member banks).

In December 2019, the FDIC issued a notice of proposed rulemaking on its brokered deposits regulation in the interest of clarifying and modernizing the FDIC's existing regulatory framework. In December 2020, the FDIC adopted final changes to the rule, thereby establishing a new framework for analyzing a "deposit broker" and determining whether deposits should be treated as brokered deposits. The final rule is expected to reduce the amount of deposits that may be classified as brokered. The final rule is scheduled to take effect on April 1, 2021 with full compliance required by January 1, 2022, subject to President Biden's Executive Order "freezing" new regulations, and review of regulations prior to adoption by Biden's appointed nominees over the federal banking agencies.

Resolution Plans

Under the Dodd-Frank Act, as amended by the EGRRCPA, a holding company of a depository institution with total consolidated assets of $100 billion or more and that has risk-based categories of $75 billion or more (and specifically those that are considered a Category I, II, or III organization under the Tailoring Rules) is required to periodically submit resolution plans (commonly referred to as "living wills") to the Federal Reserve and the FDIC pursuant to the agencies' joint resolution plan regulations. In October 2019, the Federal Reserve and the FDIC adopted changes to its joint resolution plan regulations to be consistent with changes to the Dodd-Frank Act requirement, as amended by the EGRRCPA, and specifically to tailor requirements to the size and risk profile of the covered organizations. The Bank as a state-chartered non-member bank without a holding company, and as a Category IV institution under the Tailoring Rules, is not subject to the Federal Reserve and FDIC's joint resolution plan regulations. However, the FDIC imposes similar living will requirements referred to as a "contingency plan" for insured depository institutions with total consolidated assets of $50 billion or more.

Under the FDIC's "covered insured depository institution" or "CIDI" Rule, an insured depository institution with $50 billion or more in total assets, such as the Bank, is required to submit periodically to the FDIC a contingency plan for the resolution of such institution in the event of its failure. The contingency plan submitted should enable the FDIC, as receiver, to resolve the institution under applicable receivership provisions of the FDIA in a manner that ensures that depositors receive access to their insured deposits within one business day of the institution's failure (two business days if the failure occurs on a day other than Friday), maximizes the net present value return from the sale or disposition of its assets and minimizes the amount of any loss to be realized by the institution's creditors. If the FDIC determines that a bank's contingency plan is not credible, the insured depository institution will have 90 days to submit a revised plan that addresses the deficiencies identified by the FDIC and discusses revisions made to address such deficiencies. The Bank submitted its most recent resolution plan in June 2018.

In April 2019, the FDIC issued an advance notice of proposed rulemaking regarding potential amendments to its CIDI Rule. Under the proposal, the FDIC would establish tiered resolution planning requirements based on factors including asset size and complexity, among others, and would revise the frequency and content of plan submissions for larger, more complex institutions that would remain subject to resolution planning requirements under the amended regulations. The FDIC has requested public comment on whether the $50 billion asset threshold should continue to apply in light of the modifications to its joint resolution plan regulations with the Federal Reserve. In connection with the advance notice of proposed rulemaking, the FDIC voted to delay the next round of resolution plan submissions until the rulemaking process is complete. However, in January 2021, the FDIC announced that, given the passage of time from the last resolution plan submissions and the uncertain economic outlook, the FDIC will resume requiring resolution plan submissions for insured depository institutions with $100 billion or more in assets, including the Bank. The FDIC indicated that no insured depository institution will be required to submit a resolution plan without at least 12 months advance notice, but did not otherwise provide notice of when the Bank will be required to submit its next resolution plan. The prospects and timing for the adoption of a final rule, as well as the potential application of any final rule to the Bank, are uncertain at this time, especially with the new administration.

Premiums for Deposit Insurance and Assessments

Our deposits are insured by the FDIC to the fullest extent permitted by law, and we are subject to deposit insurance assessments to maintain the DIF. Deposit insurance assessments are based on average total assets, less average tangible equity. For larger institutions, such as the Bank, the FDIC uses a performance score and a loss-severity score to calculate an initial assessment rate. In calculating these scores, the FDIC uses a bank's capital level and supervisory ratings (its CAMELS ratings) and certain financial measures to assess an institution's ability to withstand asset-related stress and funding-related stress. The FDIC has the ability to make discretionary adjustments to the total score based upon significant risk factors that are not adequately captured in the calculations.

The FDIC has set the long-range, minimum target reserve ratio at 2.0%. At least semi-annually, the FDIC will update its loss and income projections for the DIF and, if needed, will increase or decrease assessment rates, following notice- and- comment rulemaking, if required.

In June 2020, the FDIC issued a final rule that mitigates the deposit insurance assessment effects of participating in the PPP. The final rule removes the effect of participation in the PPP on various risk measures used to calculate the assessment rate, the effect of participation in the PPP on certain adjustments to the assessment rate, and provides an offset to the assessment for the increase to the assessment base attributable to participation in the PPP. The final rule became effective on April 1, 2020. The treatment of PPP loans as liquid assets provided by the rule is effective until March 31, 2021 unless the Federal Reserve and the U.S. Department of the Treasury determine to extend the PPPLF. Other adjustments remain in effect until further rulemaking.

The Dodd-Frank Act increased the minimum for the DIF reserve ratio, the ratio of the amount in the DIF to insured deposits from 1.15% to 1.35% and required that the ratio reach 1.35% by September 30, 2020. In September 2020, the FDIC adopted a Restoration Plan to restore the DIF reserve ratio to at least 1.35% within 8 years, since the ratio fell to 1.30% and below the statutory minimum of 1.35% in Q2 2020. Under the Restoration Plan, the FDIC will maintain the current schedule of assessment rates since it believes that the ratio will return to 1.35% without further action before the end of the 8-year period. If necessary, the FDIC will recommend modifications to the Restoration Plan, such as increasing assessment rates.

In February 2021, the FDIC adopted a final rule addressing the temporary deposit insurance assessment effects resulting from certain optional regulatory capital transition provisions relating to the implementation of the CECL methodology. The final rule will remove the double counting of a specified portion of the CECL transitional amount or the modified CECL transitional amount, as applicable, in the calculation of certain financial measures that are used to determine assessment rates for large and highly complex insured depository institutions. The final rule will be effective April 1, 2021. The impact on the Bank is not expected to be material.

Anti-Money Laundering, the USA Patriot Act Office of Foreign Assets Control Regulation, and the National Defense Authorization Act

A major focus of governmental policy on financial institutions is combating money laundering and terrorist financing. The USA PATRIOT Act of 2001 imposes significant compliance and due diligence obligations, and includes crimes and penalties for noncompliance and an expanded extra-territorial jurisdiction of the United States. Financial institutions are also prohibited from entering into specified financial transactions and account relationships and must use enhanced due diligence procedures in their dealings with certain types of high-risk customers and implement a written customer identification program. Financial institutions must also take certain steps to assist government agencies in detecting and preventing money laundering and to report certain types of suspicious transactions.

In addition, the United States has imposed economic sanctions that affect transactions with designated foreign countries, nationals and others which are administered by the U.S. Treasury Department Office of Foreign Assets Control.

In January 2021, the AMLA, which amends the BSA, was enacted. The AMLA is intended to comprehensively reform and modernize U.S. AML laws. Among other things, the AMLA codifies a risk-based approach to AML compliance for financial institutions; requires the development of standards by the U.S. Department of the Treasury for evaluating technology and internal processes for BSA compliance; and expands enforcement- and investigation-related authority, including a significant expansion in the available sanctions for certain BSA violations. Many of the statutory provisions in the AMLA will require additional rulemakings, reports and other measures, and the impact of the AMLA will depend on, among other things, rulemaking and implementation guidance.

In general, the failure of a financial institution to maintain and implement adequate programs to combat money laundering and terrorist financing and to prohibit transactions with targets of sanctions, or to comply with all of the relevant laws or regulations, could have serious legal and reputational consequences for the institution.

Consumer Financial Protection Bureau Supervision

The CFPB, created by the Dodd-Frank Act, is directed to prevent unfair, deceptive and abusive practices and ensure that all consumers have access to markets for consumer financial products and services, and that such markets are fair, transparent and competitive. The CFPB has authority under the Dodd-Frank Act to enforce and issue rules and regulations implementing existing consumer protection laws and is responsible for all such existing laws and regulations. Depository institutions with assets exceeding $10 billion (such as us), their affiliates, and other “larger participants” in the markets for consumer financial services (as determined by the CFPB) are subject to direct supervision by the CFPB, including any applicable examination, enforcement and reporting requirements the CFPB may establish.

CFPB rules and the statutes it enforces broadly affect our relationships with consumers. For example, CFPB's rules affect nearly every aspect of the lifecycle of a residential mortgage loan. These rules implement the Dodd-Frank Act amendments to the Equal Credit Opportunity Act, the TILA and the RESPA. Among other things, the CFPB's rules require banks to: (i) develop and implement procedures to ensure compliance with a "reasonable ability-to-repay" test (as discussed below); (ii) implement new or revised disclosures, policies and procedures for originating and servicing mortgages, including, but not limited to, pre-loan counseling, early intervention with delinquent borrowers and specific loss mitigation procedures for loans secured by a borrower's principal residence, and mortgage origination disclosures, which integrate existing requirements under TILA and RESPA; (iii) comply with additional restrictions on mortgage loan originator hiring and compensation; and (iv) comply with new disclosure requirements and standards for appraisals and certain financial products.

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

Ability-to-Repay Requirement

Under the TILA, mortgage lenders are required to show that they have verified the borrower's ability to repay a residential mortgage loan (which does not include HELOCs). Borrowers who bring actions within three years of a violation of the ability-to-repay requirement could be entitled to statutory damages equal to the sum of all financing charges and fees. In addition, a borrower can assert a violation of the ability-to-repay requirement in a foreclosure proceeding as a matter of defense by recoupment or setoff against the lender or any assignee of the lender, without time limit. In addition, CFPB rules establish the underwriting practices that are required by the ability-to-repay requirement. Lenders of mortgages that meet a "qualified mortgage" standard, however, may have a safe harbor or a presumption of compliance with the requirement.

Qualified mortgages cannot have negative amortization, interest-only payments, or balloon payments, terms over 30 years, or points and fees over certain thresholds. Qualified mortgages also have underwriting requirements that include verification of income, underwriting based on a fully amortizing payment schedule and the maximum interest rate during the first five years, and debt-to-income ratio limits. Lenders of qualified mortgages are granted either a safe harbor or a rebuttable presumption of compliance, depending on whether the qualified mortgage is a "higher priced" mortgage as compared to the average rates for comparable transactions. The CFPB's rules also prohibit prepayment penalties for residential mortgage loans, except for qualified mortgages that are not higher priced.

On December 10, 2020, the CFPB issued two final rules related to qualified mortgage loans. The first rule replaces the strict 43 percent DTI threshold for qualified mortgage loans and provides that, in addition to existing requirements, a loan receives a conclusive presumption that the consumer had the ability to repay under certain circumstances. The second rule creates a new category of "seasoned" qualified mortgages for loans that qualify for a safe harbor under the Ability-to-Repay/Qualified Mortgage Rule. The first final rule has a mandatory compliance date of July 1, 2021 and the second final rule will apply to covered transactions for which institutions receive an application after the effective date. Given the timing of the adoption of the final rules, they could be subject to review and disapproval by Congress under the Congressional Review Act.

Incentive Compensation

Guidelines adopted by the federal banking agencies pursuant to the FDIA prohibit excessive compensation as an unsafe and unsound practice and describe compensation as excessive when the amounts paid are unreasonable or disproportionate to the services performed by an executive officer, employee, director or principal shareholder.

Under guidance by the federal banking agencies, which covers all employees who have the ability to materially affect the risk profile of an organization, either individually or as part of a group, a banking organization's incentive compensation arrangements should (i) provide incentives that do not encourage risk-taking beyond the organization's ability to effectively identify and manage risks, (ii) be compatible with effective internal controls and risk management, and (iii) be supported by strong corporate governance, including active and effective oversight by the organization's board of directors. Any deficiencies in compensation practices that are identified may be incorporated into the organization's supervisory ratings, which can affect its ability to make acquisitions or perform other actions. These three principles are incorporated into the proposed joint compensation regulations under the Dodd-Frank Act, discussed below. The guidance provides that 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.

The Dodd-Frank Act requires the federal banking agencies and the SEC to establish joint regulations or guidelines for specified regulated entities, such as us, having at least $1 billion in total assets, to prohibit incentive-based payment arrangements that encourage inappropriate risk-taking by providing an executive officer, employee, director or principal shareholder with excessive compensation, fees, or benefits or that could lead to material financial loss to the entity. In addition, these regulators must establish regulations or guidelines requiring enhanced disclosure to regulators of incentive-based compensation arrangements. The agencies have not yet finalized these rules.

The scope and content of the federal banking agencies' policies on incentive compensation are continuing to develop and are likely to continue evolving.

Community Reinvestment Act and Fair Lending

We are subject to certain fair lending requirements and reporting obligations involving home mortgage lending operations. We are also subject to the CRA. The CRA generally requires the federal banking agencies to evaluate the record of a financial institution in meeting the credit needs of its local communities, including low- and moderate- income neighborhoods in a safe and sound manner. In addition to substantive penalties and corrective measures that may be required for a violation of certain fair lending laws, the federal banking agencies may take compliance with such laws and CRA into account when regulating and supervising other activities. Federal regulators are required to provide a written examination report of an institution's CRA performance using a four-tiered descriptive rating system. We received a rating of "Satisfactory" in our most recent CRA examination. These ratings and written examination reports are available to the public.

In December 2019, the FDIC released a notice of proposed rulemaking proposing edits to the federal interagency CRA regulations, a first in nearly 25 years. Among other recommended changes, the proposal included objective numerical metrics for quantifying CRA performance, procedures for the identification of qualifying CRA activities, and reassessing assessment areas based on the locations of significant levels of retail domestic deposits. The proposal also provided for the periodic publication of a non-exhaustive list of examples of qualifying activities. The FDIC has not yet issued a final rule.

Fair lending laws prohibit discrimination in the provision of banking services. The enforcement of these laws has been an increasing focus for bank regulators. Fair lending laws include the Equal Credit Opportunity Act (and Regulation B thereunder) and the Fair Housing Act, which outlaw discrimination in credit transactions and residential real estate transactions on the basis of prohibited factors including, among others, race, color, national origin, sex, and religion. A lender may be liable under these laws through administrative enforcement or private civil actions for policies that result in a disparate treatment of, or have a disparate impact on, a protected class of applicants or borrowers. We are required to have a fair lending program that is of sufficient scope to monitor the inherent fair lending risk of the institution and that appropriately remediates issues which are identified.

Permissible Financial Activities

The Bank conducts certain of its activities through wholly-owned subsidiary companies with activities limited to "bank eligible" activities that are permissible for a bank to conduct directly. These include securities brokerage, dealing in U.S. government and municipal securities, investment advisory, insurance agency, trust company, lending, payment processing and certain other activities. These subsidiaries are subject to regulation and supervision of the FDIC and DFPI as well as various other state and federal financial regulators. The Bank also invests in small business investment companies, low income housing tax credit funds and other companies or funds that engage in lending or investment activities consistent with the CRA and the public welfare investment powers of FDIC-insured California state chartered banks, subject to the investment limits specified under applicable banking laws.

Insured state non-member banks, including us, are also permitted to engage through "financial subsidiaries" in certain activities which have been determined by the Federal Reserve to be financial in nature or incidental to financial activity. To engage in such activities, the bank must be well-managed and the bank and its insured depository institution affiliates must each be well-capitalized and have received at least a "Satisfactory" rating in its most recent CRA examination. The Bank must also deduct the aggregate amount of its outstanding equity investment in financial subsidiaries, including retained earnings, from the bank's capital and assets for purposes of calculating regulatory capital ratios and must disclose this fact in any published financial statements. Additionally, the Bank must comply with Sections 23A and 23B of the Federal Reserve Act, which place quantitative and qualitative limits on transactions with a depository institution's affiliates, including restrictions on extensions of credit to affiliates, and comply with certain financial and operational standards as though the financial subsidiaries were subsidiaries of a national bank. At the present time, the Bank has no "financial subsidiaries."

Volcker Rule

The Dodd-Frank Act prohibits banks and their affiliates from engaging in proprietary trading and having certain interests in, relationships with or sponsoring hedge funds and private equity funds, as well as other private funds that are offered within specified exemptions to the Investment Company Act, known as "covered funds," subject to certain detailed exemptions. The statutory provision is commonly called the "Volcker Rule."

In August 2019, the FDIC, together with other federal agencies responsible for the Volcker Rule implementation, adopted a final rule amending the regulations that implement the Volcker Rule. The final rule became effective on January 1, 2020, with a compliance date of January 1, 2021, and is intended to simplify and tailor compliance requirements. Among other changes, the 2019 final rule tailors compliance program obligations for trading activities in tiers based on the level of trading assets and liabilities, which benefits banking entities with limited trading activities like the Bank, and simplifies certain conditions for exemptions to the restrictions that apply to activities engaged in by banking entities. Due to the limited size of our trading assets and liabilities, we have implemented a compliance program that references requirements of the Volcker Rule and the implementing regulations, but are not required to report quantitative metrics or otherwise demonstrate compliance with the implementing regulations on an ongoing basis.

In June 2020, the federal banking agencies approved a final rule implementing the proposed amendments to the Volcker Rule's "covered fund" provisions with new exclusions from covered fund status for certain types of investment vehicles, modifications to the eligibility criteria for certain existing exclusions, and clarification and modification of other provisions governing banking entities' investments in and other transactions and relationships involving covered funds. These amendments became effective on October 1, 2020. We do not believe the amendments to the regulations that implement the Volcker Rule will have a material impact on our business or operations.

Financial Privacy

Under federal and state statutes and FDIC and SEC regulations, we are limited in our ability to disclose non-public information about consumers to nonaffiliated 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 a nonaffiliated third party or to affiliates for marketing to that consumer. These regulations affect how consumer information is transmitted through diversified financial companies or conveyed to outside vendors. Changes or additions to these regulations, including the CCPA and any final implementing regulations, may result in implementation and risk management costs, as well as risk to the Bank. The CCPA, which became effective on January 1, 2020, gives consumers the right to request disclosure of information collected about them, and whether that information has been sold or shared with others, the right to request deletion of personal information (subject to certain exceptions), the right to opt out of the sale of the consumer's personal information, and the right not to be discriminated against for exercising these rights. In August 2020, the California Office of Administrative Law approved the California Attorney General's regulations to implement the CCPA. These regulations went to effect immediately. In November 2020, voters in the State of California approved the CPRA, a ballot measure that amends and supplements the CCPA by creating the California Privacy Protection Agency, a watchdog privacy agency to be appointed shortly after the CPRA's enactment. The CPRA also modifies the CCPA by expanding both the scope of businesses covered by the law and certain rights relating to personal information and its use, collection, and disclosure by covered businesses.

In connection with the regulations governing the privacy of consumer financial information, the federal banking agencies, including the FDIC, have also adopted guidelines for establishing information security standards and programs to protect such information under the supervision of the board of directors.

In December 2020, the federal bank regulatory agencies released a proposed rule regarding notification requirements for banking organizations related to significant computer security incidents. Under the proposal, an FDIC-supervised depository institution, such as the Bank, would be required to notify the FDIC within 36 hours of incidents that could result in the banking organization's inability to deliver services to a material portion of its customer base, jeopardize the viability of key operations of the banking organization, or impact the stability of the financial sector. The effects on the Bank will depend on the final form of the rule and how it is implemented.

Restrictions on Dividends and Other Distributions

The power of the board of directors of an insured depository institution to declare a cash dividend or other distribution with respect to capital is subject to statutory and regulatory restrictions that limit the amount available for such distribution depending upon earnings, financial condition and cash needs of the institution, as well as general business conditions. Insured depository institutions are also prohibited from paying management fees to any controlling persons or, with certain limited exceptions, making capital distributions, including dividends, if after such transaction the institution would be less than adequately capitalized.

Under California law, we may not make a distribution to shareholders that exceeds the lesser of (i) our retained earnings or (ii) our net income for the last three fiscal years, less the amount of any distributions made during that period. With the Commissioner's approval, however, we may make a distribution that does not exceed the greater of (i) our retained earnings, (ii) our net income for our last fiscal year or (iii) our net income for our current fiscal year. The Commissioner may otherwise limit our distributions to shareholders if the Commissioner finds that the shareholders' equity is not adequate or that such distributions would be unsafe or unsound for us.

The federal banking agencies also have authority to prohibit depository institutions from engaging in business practices that are considered unsafe or unsound, possibly including payment of dividends or other payments under certain circumstances even if such payments are not expressly prohibited by statute.

It is anticipated that our capital planning and risk management will be considered by the FDIC in evaluating whether proposed payments of dividends or stock repurchases may be an unsafe or unsound practice.

Change in Bank Control

Under the CIBCA, a notice must be submitted to the FDIC if any person (including a company), or group acting in concert, seeks to acquire "control" of us. Control is defined as the power, directly or indirectly, to direct our management or policies or to vote 25% or more of any class of our outstanding voting securities. Additionally, a rebuttable presumption of control arises when any person (including a company), or group acting in concert, seeks to acquire 10% or more, but less than 25%, of any class of our outstanding voting securities which are publicly traded. When reviewing a notice under the CIBCA, the FDIC will take into consideration the financial and managerial resources of the acquirer, the convenience and needs of the communities served by us, the anti-trust effects of the acquisition and other factors. California law similarly requires prior approval of the Commissioner of any change in control. Under the BHCA, as amended, any company that is not an existing bank holding company would be required to obtain prior approval from the Federal Reserve before it could obtain "control" of us (and thereby become a bank holding company) within the meaning of the BHCA. Control generally is defined to mean the ownership or power to vote 25% or more of any class of our voting securities, the ability to control in any manner the election of a majority of our directors or the ability to exercise a controlling influence over our management and policies. An existing bank holding company would be required to obtain the Federal Reserve's prior approval under the BHCA before acquiring more than 5% of any class of our voting securities.

Other Regulatory Matters

Insured depository institutions of our size must undergo a full-scope, on-site examination by their primary federal banking agency at least once every 12 months. The cost of examinations of insured depository institutions and any affiliates may be assessed by the appropriate federal banking agency against each institution or affiliate, as it deems necessary or appropriate. As a result of our current asset size, our regulators, the FDIC and DFPI, utilize a dedicated exam team throughout the year, as is consistent with their large bank supervision practices.

Regulations require insured depository institutions to adopt written policies establishing appropriate limits and standards, consistent with such guidelines adopted by the federal banking agencies, for extensions of credit secured by real estate or made for purposes of financing permanent improvements to real estate.

The FDIC has also adopted regulations imposing minimum requirements on us with respect to appraisals obtained in connection with certain real estate related financial transactions. Appraisals by state-certified or state-licensed appraisers are required for all such transactions unless an exemption applies. The more common exceptions relate to smaller transactions and transactions that are not secured by real estate. Appraisals must comply with the FDIC's appraisal standards, and appraisal reports must be issued in writing.

Competition

As a result of the laws and regulations applicable to us, we may be subject to more stringent regulatory requirements and supervision than smaller institutions and we may be subject to even more stringent regulatory requirements as a result of continued growth of the Bank. In addition, FinTech companies and other non-bank competitors may not be subject to banking regulation, or may be regulated by a national or state agency that does not have the same regulatory priorities or supervisory requirements as our regulators. These differences in regulation can impair our ability to compete effectively with competitors that are less regulated and that do not have similar compliance costs.

Future Legislation

Congress may enact legislation from time to time that affects the regulation of the financial services industry, and state legislatures may enact legislation from time to time affecting the regulation of financial institutions chartered by or operating in those states. Federal and state regulatory agencies also periodically propose and adopt changes to their regulations or change the manner in which existing regulations are applied. The substance or impact of pending or future legislation or regulation, or the application thereof, cannot be predicted, although enactment of the proposed legislation could impact the regulatory structure under which we operate and may significantly increase our costs, impede the efficiency of our internal business processes, require us to increase our regulatory capital and modify our business strategy, and limit our ability to pursue business opportunities in an efficient manner.

The results of the 2020 U.S. national election and the advent of a new presidential administration carry the potential to change the regulatory structure under which we operate in ways that may be difficult to anticipate and with effects that may be hard to predict. With control of the White House and both chambers of Congress, Democrats are now able to set the agenda both legislatively and in the new administration. The turnover of the presidential administration has resulted in changes in the leadership and senior staffs of the federal banking agencies, CFPB, CFTC, SEC, and the Treasury Department. In addition, the Board of the Federal Reserve and the FDIC Board of Directors may experience significant turnover within the next year to two years. These changes could impact the rulemaking, supervision, examination and enforcement priorities and policies of the agencies. The Bank's operations, risk management and compliance processes may be impacted by the withdrawal or modification of certain regulations pursuant to these procedural processes.

In the interest of stabilizing the economy and providing additional relief in light of COVID-19, the new administration could impose new or modified COVID-19 programs and restrictions, including new forbearance initiatives, place added pressure on state governments to impose more extensive business and personal activity restrictions, and propose related fiscal and tax measures and/or revise or create new regulatory requirements that would apply to us, impacting our business, operations and profitability.

Available Information

We are subject to the information reporting requirements of the Exchange Act, as administered and enforced by the FDIC, and we are subject to FDIC rules promulgated thereunder. Consequently, we file annual, quarterly and current reports, proxy statements and other information with the FDIC, copies of which are made available to the public over the Internet at https://efr.fdic.gov/fcxweb/efr/index.html.

We make available, free of charge through our website, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, definitive proxy statements and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after such reports are filed with or furnished to the FDIC. Additionally, we have adopted and posted on our website a code of ethics that applies to our principal executive officer, principal financial officer and principal accounting officer. Within the required time period, we will post on our website any amendment to the code of ethics and any waiver applicable to any executive officer, director or senior financial officer. Our website also includes our corporate governance guidelines and the charters for our audit committee, our compensation committee, and our corporate governance and nominating committee. The address for our website is firstrepublic.com. The information on our website is not incorporated by reference into this Form 10-K.

You may also request a copy of any of the aforementioned documents at no cost by writing or by telephoning us at the following address or telephone number:

First Republic Bank
111 Pine Street, 2nd Floor
San Francisco, CA 94111
Attention: Investor Relations
(415) 392-1400

Item 1A. Risk Factors.

We are subject to a variety of risks, some of which are specific to us and some of which are inherent to the financial services industry. There are risks, many beyond our control, that could cause our financial condition, liquidity or results of operations to differ materially from management's expectations. This Annual Report on Form 10-K may not describe all of those risks. Some of the risks that may affect us are described below. Any of the risks described below, by itself or together with one or more other factors, may materially and adversely affect our business, results of operations, liquidity or financial condition or the market price or liquidity of our common stock. The risks presented below are not the only risks that we face. Additional risks that we do not presently know or that we currently deem immaterial may also materially and adversely affect our business, results of operations, liquidity or financial condition or the market price or liquidity of our common stock. Further, to the extent that any of the information contained in this Annual Report on Form 10-K constitutes forward-looking statements, the risk factors below also are cautionary statements identifying important factors that could cause actual results to differ materially from those expressed in any such forward-looking statements. *See "Information Regarding Forward-Looking Statements" on page 5.*

Risk Factor Summary

Risk Related to the COVID-19 Pandemic

- COVID-19 has caused substantial disruptions to the domestic and global economy, and the communities we serve, which may have an adverse effect on our business, financial position and results of operations.

Credit Risk

- The markets in which we operate are subject to the risk of earthquakes and other natural disasters, which could negatively affect real estate property values and our operations.
- We must maintain and follow high underwriting standards to grow safely.
- Our operations and clients are concentrated in the United States' largest metropolitan areas, which could be the target of terrorist attacks, which may disrupt our operations and our clients' businesses and negatively affect real estate property values.
- Our loan portfolio is concentrated in single family residential mortgage loans, including non-conforming, adjustable-rate, initial interest-only period and jumbo mortgages.
- Weakness in the commercial real estate and construction markets could adversely affect our performance.
- We have increased our lending to businesses and have expanded our unsecured lending, and these loans expose us to greater risk than mortgages.
- We may be adversely affected by the soundness of other financial institutions.
- Climate risk could adversely affect our business and clients and damage our reputation.

Market and Interest Rate Risk

- Our business may be adversely affected by conditions in the financial markets and economic conditions generally as well as economic conditions in the markets in which we operate.
- We are subject to interest rate risk and fluctuations in interest rates may negatively impact our net interest income.
- Our wealth management business may be negatively impacted by changes in economic and market conditions, and clients have sought and may continue to seek legal remedies for investment performance.
- Downgrades of the U.S. government's credit rating could have a material adverse effect on our business, financial condition and liquidity.
- Our loan portfolio possesses increased risk due to our level of adjustable-rate loans.
- We may not be able to sell loans in the secondary market, which may adversely impact our ability to manage our growth.

Strategic Risk

- We face significant competition to attract and retain banking clients.
- We face significant competition to attract and retain wealth management clients.
- Our ability to maintain, attract and retain client relationships is highly dependent on our reputation and damage to our reputation could also impair the confidence of our employees, counterparties, business partners and investors.
- We may not be able to manage our growth successfully.
- We face competition with respect to our deposits. The inability to maintain or grow our deposits could force us to use more expensive and less stable sources of funding.

- Adverse changes in the ratings for our long-term debt or preferred stock could have a material adverse effect on our business, financial condition and liquidity and may increase our funding costs or impair our ability to effectively compete for business and clients.
- We may not be able to attract and retain key personnel, which could adversely affect our business objectives.
- We may take actions to maintain client satisfaction that result in losses or reduced earnings.
- We may be adversely affected by risks associated with completed and potential acquisitions.

Operational and Technology Risk

- Our operations could be interrupted if our third-party service providers experience financial difficulty, terminate their services or fail to comply with banking regulations.
- We face risks related to the ability of our information technology systems to support our existing operations and future growth.
- The network and computer systems on which we depend could fail or experience a security breach.
- We may be adversely affected by disruptions to our network and computer systems or to those of our service providers as a result of denial-of-service or other cyber attacks.
- We are subject to certain operational risks, including fraud by employees and third parties and data processing system failures and errors.
- We rely on the accuracy and completeness of information about our clients and counterparties.
- The systems and models we employ to analyze, monitor and mitigate risks, as well as for other business purposes, are inherently limited, may be not be effective in all cases and, in any case, cannot eliminate all risks that we face.
- Failure to properly manage and aggregate data may result in our inability to manage risk and business needs and inaccurate financial, regulatory and operational reporting.

Liquidity Risk

- We are subject to liquidity risk, which could impair our ability to fund various obligations.

Financial Reporting Risk

- Our financial results depend on management’s selection of accounting methods and certain assumptions and estimates.
- Our ACL on loans, unfunded loan commitments, and held-to-maturity debt securities may be inadequate.
- If we fail to maintain internal controls over financial reporting, we may not be able to accurately report our financial results, which could harm our reputation and have a negative effect on the price of our common stock.
- The value of our goodwill and other intangible assets may decline in the future.

Legal and Regulatory Risk

- The banking industry is highly regulated, and legislative or regulatory actions taken now or in the future may have a significant adverse effect on our operations, including increased legal and compliance costs.
- The investment management and brokerage businesses are highly regulated.
- We are subject to stringent capital requirements, which impact our ability to conduct business.
- We may become subject to more stringent liquidity requirements, which could adversely impact our operations and future growth.
- Differences in regulation can affect our ability to compete effectively.
- Reforms of Fannie Mae and Freddie Mac and the FHLBs could reduce demand for residential mortgage loans, limit our ability to sell residential mortgage loans in the secondary market and affect our funding sources.
- We could be held responsible for environmental liabilities of properties acquired through foreclosure.
- We are subject to legal and litigation risk, which may adversely impact our operations, reputation and financial condition.
- Tax regulations could be subject to potential legislative, administrative or judicial changes or interpretations.
- Uncertainty about the future of reference rates may adversely affect our business.
- Regulation of incentive compensation under the Dodd-Frank Act may adversely affect our ability to retain our key employees.
- The ability-to-repay requirement for residential mortgage loans may limit our ability to sell or securitize certain of our mortgage loans and give borrowers potential claims against us.
- Increases in FDIC insurance premiums may adversely affect our earnings.
- Changes in consumer privacy laws, such as in California, or any non-compliance with such laws, could adversely affect our business, financial condition and results of operations.

Risk Related to the COVID-19 Pandemic

COVID-19 has caused substantial disruptions to the domestic and global economy, and the communities we serve, which may have an adverse effect on our business, financial position and results of operations.

COVID-19 has created economic and financial disruptions globally and has led governmental authorities to take unprecedented measures to mitigate the spread of the disease, including travel restrictions, business closures and shelter-in-place orders, and to take actions designed to stabilize markets and promote economic growth, including meaningfully influencing the interest-rate environment.

The disruptions caused by COVID-19 may cause national, regional and local economies to suffer lasting disruptions, which could result in decreased consumer spending and demand for lending, which may materially impact our business. Volatile market conditions and changed consumer behavior may have a material impact on our lending business, and in particular our real estate lending business, including through reduced demand for residential, commercial and multifamily real estate or decreasing property values. Also, declines in the financial markets may negatively affect our wealth management business and the level of AUM or AUA. Declining market conditions may reduce our wealth management fees and subject us to greater litigation risk. Additionally, low interest rates, including the possibility for negative interest rates, may adversely impact our interest income and decrease the value of our assets.

These disruptions may also impair our clients' ability to repay loans. Further, clients may seek additional loans that they may be unable to repay, particularly as businesses remain closed and unemployment levels rise. These circumstances could result in future delinquencies and increases in our provision for credit losses and provision for unfunded loan commitments. Additionally, the macroeconomic forecasts used in determining the ACL could change, resulting in significant changes in the ACL. Declines in market conditions may increase the risk of default and decrease the value of collateral. Further, our ability to seek repayment for loans may be limited by government restrictions, such as government-mandated suspensions on evictions, foreclosures and mortgage payments, including as a result of the CARES Act and CAA.

We are also a lender for the SBA's PPP, and we face increased risks in light of participation in this program. The PPP and other government programs in which we may participate are complex and our participation may lead to governmental and regulatory scrutiny, increases in credit risk and fraud, negative publicity and damage to our reputation. Further, we have been named in lawsuits and we may be named in additional lawsuits in connection with our participation in the PPP. The PPP loans are not secured by an interest in a borrower's assets or otherwise backed by personal guarantees. If the borrower under the PPP loan fails to qualify for loan forgiveness, we are at the heightened risk of holding these loans at unfavorable interest rates as compared to the loans to clients that we would have otherwise extended credit. While the PPP loans are guaranteed by the SBA, various regulatory requirements will apply to our ability to seek recourse under the guarantees, and related procedures are currently subject to uncertainty. If a borrower defaults under a PPP loan, these requirements and uncertainties may result in our inability to fully recover against the loan guaranty or to seek full recourse against the borrower.

From an operational perspective, COVID-19 has resulted in, and could continue to result in, temporary closures of certain of our offices and the facilities of many of our clients and service providers. In response to the pandemic, we have implemented contingency plans, which include company-wide remote working arrangements, modified openings and hours in our preferred banking offices, social distancing, mask wearing and other measures to ensure the safety of our colleagues and clients. However, remote working arrangements could increase operational risks, including cybersecurity risks, resulting from increased dependencies on employees' home internet systems and their abilities to work remotely, which in turn may be impacted by various unrelated events such as power outages or damaged infrastructure that may occur due to earthquakes, wildfires, hurricanes or other natural disasters. Additionally, although we maintain business continuity plans, COVID-19 may impair the availability of key employees who are necessary to conduct our business. We also outsource certain critical business functions to third party vendors and service providers, which may be unable to perform or experience operational failures as a result of COVID-19.

Further, actions taken by U.S. or other governmental authorities that are intended to mitigate the effects of COVID-19, or delays in the implementation of regulatory measures that had been pending prior to COVID-19, may result in regulatory uncertainty and impose additional restrictions. At this time, we cannot predict how legal and regulatory responses to concerns about COVID-19 may impact our business.

The extent of the impact of COVID-19 on our business, financial position and results of operations will depend largely on future developments, which are highly uncertain and cannot be predicted. At this time, we are not able to estimate the future effect of COVID-19 on our business, financial position and results of operations, including, but not limited to, the duration and severity of the outbreak, including outbreaks of new strains of COVID-19, the actions to contain the virus or treat its impact including the development and availability of vaccines, and how quickly and to what extent normal economic and operating conditions can resume.

In addition, COVID-19 may heighten or otherwise affect the other risk factors presented herein, which could materially and adversely affect our business, financial position and results of operations. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially and adversely affect our business, results of operations or financial condition.

Credit Risk

The markets in which we operate are subject to the risk of earthquakes and other natural disasters, which could negatively affect real estate property values and our operations.

A significant number of our properties, and real estate properties currently securing loans made by us and our borrowers in general, are located in California. California has had and will continue to have major earthquakes in many areas, including the San Francisco Bay Area, where a significant portion of the collateral and assets of our borrowers is concentrated, and the Southern California coastal regions.

Our markets are also prone to drought, wildfires, mudslides, floods, hurricanes and other natural disasters, the frequency and severity of which have increased in recent years and may be impacted by climate change. Our properties and the collateral and assets of our borrowers may not be insured or may be underinsured against such occurrences. Borrowers are not required to and may not insure for these hazards other than flood, wind and fire damage. In addition to possibly sustaining damage to our premises and disruption of our operations, if there is a major natural disaster in California or elsewhere in our markets, we will face the risk that many of our borrowers may experience uninsured property losses or sustained job interruption or loss that may materially impair their ability to meet the terms of their loan obligations. In addition, such events may have other adverse impacts on economic conditions in our markets that are difficult to predict. A major earthquake, drought, wildfire, mudslide, flood, hurricane or other natural disaster in our California markets or our other markets could materially and adversely affect our business, results of operations or financial condition.

We must maintain and follow high underwriting standards to grow safely.

Our ability to grow our assets safely depends on maintaining disciplined and prudent underwriting standards and ensuring that our relationship managers and business bankers follow those standards. The weakening of these standards for any reason, such as to seek higher yielding loans, or a lack of discipline or diligence by our employees in underwriting and monitoring loans, may result in loan defaults, foreclosures and additional charge-offs and may necessitate that we significantly increase our ACL on loans, each of which could adversely affect our net income. As a result, our business, results of operations or financial condition could be adversely affected.

Our operations and clients are concentrated in the United States' largest metropolitan areas, which could be the target of terrorist attacks, which may disrupt our operations and our clients' businesses and negatively affect real estate property values.

The vast majority of our operations and our clients, as well as the properties securing our real estate loans outstanding are located in the San Francisco Bay Area and the New York City, Los Angeles, and Boston metropolitan areas. These areas have been and may continue to be the target of terrorist attacks. A successful, major terrorist attack in one of these areas could severely disrupt our operations and the ability of our clients to do business with us and cause losses to loans secured by properties in these areas. Such an attack would therefore adversely affect our business, results of operations or financial condition.

Our loan portfolio is concentrated in single family residential mortgage loans, including non-conforming, adjustable-rate, initial interest-only period and jumbo mortgages.

Our single family mortgage loans, including loans held for sale, represent over half of our total loan portfolio. Single family mortgage loans primarily consist of hybrid ARMs that will adjust within one to ten years in the future, as well as loans that are currently adjustable rate. Any increase in prevailing market interest rates may result in increased payments for borrowers who have ARMs, which may increase the possibility of defaults. In addition, a substantial portion of single family mortgage loans have an initial interest-only period of generally ten years. When an interest-only loan converts to fully-amortizing status, monthly payments are subject to change and may increase by a substantial amount. Even without an increase in prevailing market interest rates, borrowers may not be able to afford the increased monthly payments, which may result in higher loan delinquency levels. In addition, real estate values may decline and credit standards may tighten in concert with the higher payment requirements, which may make it difficult for borrowers to sell their homes or refinance their loans to pay off their mortgage obligations. As a result, interest-only loans are considered to have an increased risk of delinquency, default and foreclosure than conforming loans and may result in higher levels of realized losses. Furthermore, a substantial portion of our single family loans are jumbo loans (over $765,600 in size). The secondary market for jumbo mortgages has historically been less liquid compared to conforming loans, which could impact the amount of loans that we sell in the secondary market. All of these factors related to our single family mortgages could, consequently, adversely affect our business, results of operations or financial condition.

Weakness in the commercial real estate and construction markets could adversely affect our performance.

Our loan portfolio includes commercial real estate loans and loans for the construction and ownership of other types of properties other than owner-occupied single family homes. The factors that impact the valuation of these loans, and the valuation of the underlying commercial real estate or undeveloped land, are more complicated than the valuation of single family mortgage loans. Commercial real estate loans and loans secured by undeveloped land also tend to have shorter maturities than residential mortgage loans and usually are not fully amortizing, meaning that they may have a significant principal balance or "balloon" payments due on maturity. In addition, commercial real estate properties, particularly industrial and warehouse properties, are generally subject to relatively greater environmental risks than noncommercial properties and to the corresponding burdens and costs of compliance with environmental laws and regulations. Also, there may be costs and delays involved in enforcing rights of a property owner against commercial tenants in default under the terms of their leases. For example, tenants may seek the protection of bankruptcy laws, which could result in termination of lease contracts.

The borrower's ability to repay a commercial real estate loan depends on leasing to tenants through the life of the loan or the borrower's successful operation of a business. Weak economic conditions may impair a borrower's business operations and typically slows the execution of new leases. Such economic conditions may also lead to greater existing lease turnover. Increased vacancies could result in rents falling further over the next several quarters. The combination of these factors could result in further deterioration in the fundamentals underlying the stability of the commercial real estate market and result in the deterioration in value of some of our loans. Any such deterioration could adversely affect the ability of our borrowers to repay the amounts due under their loans. As a result, our business, results of operations or financial condition may be adversely affected.

In the case of construction loans, borrowers face the additional risks that construction may take longer or be more expensive than expected, and that when completed, the value of the property, and therefore rents or sale proceeds, may be less than expected. Any of these circumstances could significantly impair borrowers' cash flows and their ability to repay the amounts due under their loans, and, as a result, our business, results of operations or financial condition may be adversely affected.

We have increased our lending to businesses and have expanded our unsecured lending, and these loans expose us to greater risk than mortgages.

In the past several years, we have expanded our lending to businesses, including capital call lines of credit, tax-exempt, and other business lending. Business loans inherently have more risk of loss than real estate secured loans, in part because business loans may be larger or more complex to underwrite than mortgages, some of the loans or portions thereof may be unsecured, and the value of any collateral may be severely impacted by the performance of the business. In addition, our unsecured loans, which include household debt refinance loans consisting of term loans and personal lines of credit, and other unsecured lines of credit, have also increased over the past several years. If a decline in economic conditions or other issues cause difficulties for our business or unsecured borrowers or we fail to evaluate the credit of the loan accurately when we underwrite the loan, it could result in delinquencies or defaults and a material adverse effect on our business, results of operations or financial condition.

We may be adversely affected by the soundness of other financial institutions.

As a result of trading, clearing or other relationships, we have exposure to many different counterparties and routinely execute transactions with counterparties in the financial services industry, including commercial banks, brokers, dealers and investment banks. Many of these transactions expose us to credit risk in the event of a default by a counterparty. Even the perceived lack of creditworthiness of, or questions about, a counterparty may lead to marketwide liquidity problems and losses or defaults by various institutions. This systemic risk may adversely affect financial intermediaries, such as clearing agencies, banks and exchanges with which we interact on a daily basis, or key funding providers. In addition, the criteria for and manner of governmental support of financial institutions and other economically important sectors remain uncertain and may change over time. Further, the consolidation of financial services firms and the failures of other financial institutions has in the past, and may in the future, increase the concentration of, or otherwise affect the nature of, our counterparty risk. Our credit risk may also be exacerbated when the collateral we hold cannot be realized upon or is liquidated at prices not sufficient to recover the full amount of the credit or derivative exposure due to us. Any such losses could have a material adverse effect on our business, results of operations or financial condition.

Climate risk could adversely affect our business and clients and damage our reputation.

Concerns regarding climate risk may lead to further governmental efforts to mitigate those risks, as well as changes in behavior and preferences by consumers and businesses. New governmental regulations or guidance relating to climate risk, as well as changes in behavior and preferences may affect our product and service offerings. The effects of climate change may have a negative impact on the financial condition of our clients, which may decrease revenues from those clients and increase the credit risk associated with loans and other credit exposures to those clients. Additionally, our reputation may be damaged as a result of our or our clients' involvement in certain activities or industries associated with climate change. As a result, our business, results of operations or financial condition may be adversely affected.

Market and Interest Rate Risk

Our business may be adversely affected by conditions in the financial markets and economic conditions generally as well as economic conditions in the markets in which we operate.

Our financial performance generally, and in particular, the ability of borrowers to pay interest on and repay the principal of outstanding loans and the value of collateral securing those loans, as well as demand for loans and other products and services we offer and whose success we rely on to drive our future growth, is highly dependent on the business environment in the markets in which we operate and in the United States as a whole.

Some elements of the business environment that affect our financial performance include short-term and long-term interest rates, the prevailing yield curve, inflation, consumer spending, employment levels, home prices, bankruptcies, U.S. fiscal and monetary policies, fluctuations in the debt and equity capital markets, state and local regulations, and the strength of the domestic economy and the local economies in the markets in which we operate. Our operations are concentrated geographically in California, particularly the San Francisco Bay Area, and the New York City and Boston metropolitan areas. Adverse changes in economic conditions in these areas, including as a result of the unfavorable impacts of state and local regulation or population shifts out of these areas, can have a significant impact on the demand for our products and services, our loans and wealth management business. Unfavorable market conditions can result in a deterioration of the credit quality of borrowers, adverse changes in payment patterns, an increase in the number of loan delinquencies, defaults and charge-offs, additional provisions for credit losses, declines in credit usage, adverse asset values and a reduction in AUM or AUA.

The majority of our loan portfolio is secured by real estate. Our loan portfolio, in particular, is concentrated in California in general and the San Francisco Bay Area in particular. A decline in real estate values can negatively impact our ability to recover our investment should the borrower become delinquent. Loans secured by stock or other collateral may be adversely impacted by a downturn in the economy and other factors that could reduce the recoverability of our investment. Unsecured loans are dependent on the solvency of the borrower, which can deteriorate, leaving us with a risk of loss.

Difficult market conditions may impact the process we use to estimate losses inherent in our credit exposure. The process requires difficult, subjective, and complex judgments, including forecasts of economic conditions and how these economic predictions might impair the ability of our borrowers to repay their loans, and in difficult market conditions it may no longer be capable of accurate estimation thereby impacting its reliability.

Unfavorable or uncertain economic and market conditions can be caused by declines in economic growth, business activity or investor or business confidence, limitations on the availability of 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 a combination of these or other factors. Economic slowdown and instability outside of the United States may adversely affect economic and market conditions in the United States.

Uncertainty about federal fiscal policymaking, the medium and long-term fiscal outlook of the federal government, future tax rate legislation and employment costs is a concern for businesses, consumers and investors in the United States. Any unfavorable changes in the general business environment in which we operate, or in the United States as a whole or abroad, could adversely affect our business, results of operations or financial condition.

We are subject to interest rate risk and fluctuations in interest rates may negatively impact our net interest income.

Fluctuations in interest rates may negatively impact our banking business. Our primary source of income from operations is net interest income, which is the difference between the interest income received on interest-earning assets (primarily loans and investment securities) and the interest expense incurred on interest-bearing liabilities (usually deposits and borrowings). The level of net interest income is primarily a function of the average balance of interest-earning assets, the average balance of interest-bearing liabilities and the spread between the yield on such assets and the cost of such liabilities during a given period. These factors are influenced by the pricing and mix of both interest-earning assets and interest-bearing liabilities which, in turn, may be impacted by external factors such as the local economy, client demand and product preferences, competition for loans and deposits, the monetary policy of the FOMC and market interest rates. Conditions such as inflation, deflation, recession, unemployment, money supply, or other factors beyond our control may also affect interest rates. Beginning in 2019, the FOMC started monetary policy and quantitative easing, reaching a federal funds target range of 0.00% to 0.25% in March 2020. The FOMC's actions in response to COVID-19 are meaningfully influencing the interest-rate environment, which may impact our net interest margin.

The rate paid on our deposits and short-term borrowings may be influenced by short-term interest rates, the level of which is driven primarily by the FOMC's monetary policy actions. However, the yields generated by certain loans and securities may also be driven by medium- and longer-term interest rates, which are set by the market and at times, influenced by FOMC's actions. The level of net interest income is therefore influenced by movements in such interest rates and the pace at which such movements occur. If the interest rates on our interest-bearing liabilities increase faster than the interest rates on our interest-earning assets, our net interest income may decline and with it, a decline in our earnings may occur. Conversely, the yield the Bank earns on assets could fall faster or further than the Bank's ability to lower rates paid on deposits or borrowings. Various assets and liabilities may also reset to different indices, which may not always move in the same direction or to the same degree (basis risk). Financial instruments with embedded optionality or prepayment risk may further impact net interest income. As a result, our business, results of operations or financial condition may be adversely affected, perhaps materially.

In addition, customers may move money from bank deposits into investments, such as equity markets, federal government and corporate securities, or other investment vehicles that provide higher rates of return than financial institution deposits. This may cause the Bank to lose some of its main source of low cost funding. Customers may also move noninterest-bearing deposits into interest-bearing accounts, thus increasing overall deposit costs. Higher funding costs may reduce the Bank's net interest margin and net interest income.

Furthermore, our securities portfolio includes long-term municipal bonds with fixed interest rates. The yields on these bonds do not change with prevailing interest rates. In a rising rate environment, the prices of such securities would likely decline, which may result in unrealized losses for the Bank. Inversely, in a falling rate environment, we may not realize the full benefit of price increases for bonds with embedded optionality. Most of our long-term municipal bonds are held-to-maturity.

Changes in interest rates can also affect the slope of the yield curve and consequently impact our net interest margin. In general, a negative parallel shift in the yield curve or a flatter or inverted yield curve could cause our net interest income and net interest margin to contract, which could have a material adverse effect on our net interest income. Changes in the yield curve may also adversely affect the expected cash flows of certain callable investment securities or loans by increasing prepayment risk.

An increase in interest rates on loans could also have a negative impact on our results of operations by reducing the ability of borrowers to make payments under adjustable-rate loan obligations. These circumstances could not only result in increased loan defaults, foreclosures and charge-offs, but also necessitate further increases to the ACL, which may materially and adversely affect our business, results of operations or financial condition. In addition, a decrease in interest rates on loans may result in loans in the servicing portfolio repaying more rapidly, which could result in impairments of MSAs and decreases in servicing income.

Our wealth management business may be negatively impacted by changes in economic and market conditions, and clients have sought and may continue to seek legal remedies for investment performance.

Our wealth management business may be negatively impacted by changes in general economic and market conditions because the performance of such business is directly affected by conditions in the financial and securities markets.

The financial markets and businesses operating in the securities industry are highly volatile (meaning that performance results can vary greatly within short periods of time) and are directly affected by, among other factors, domestic and foreign economic conditions, general trends in business and finance, and changes to the securities laws and regulations, all of which are beyond our control. We cannot guarantee that broad market performance will be favorable in the future. Declines in the financial markets or a lack of sustained growth may result in declines in the performance of our wealth management business and the level of AUM or AUA.

The investment advisory contracts of FRIM, our investment advisory subsidiary, generally provide for fees payable for investment advisory services based on the market value of AUM. Because most contracts provide for fees based on the market values of securities, declines in securities prices may reduce our wealth management fees and have an adverse effect on our business, results of operations or financial condition.

Market volatility and/or weak economic conditions may further affect investment preferences, trading activities, and savings patterns, which impact demand for certain products and services that we provide. In addition, following periods of volatile or declining market conditions, investment advisory or brokerage clients may seek legal remedies for investment performance. We may be required to defend against lawsuits involving our broker-dealer and investment management subsidiaries arising from clients' investment losses. These types of lawsuits may result in significant legal expenses or other costs that may not be covered by insurance. We may also face reputational risks with regard to such suits which could impair our ability to effectively compete to attract and retain clients. As a result, any such current or future lawsuits could adversely affect our business, results of operations or financial condition.

Downgrades of the U.S. government's credit rating could have a material adverse effect on our business, financial condition and liquidity.

Future uncertainty over U.S. fiscal policy could result in a downgrade or a reduction in the outlook of the U.S. long-term sovereign credit rating by one or more credit ratings agencies. Any downgrade, or perceived future downgrade, in the U.S. sovereign credit rating or outlook could adversely affect global financial markets and economic conditions. Prices of U.S. Treasury securities and debt securities issued by Fannie Mae, Freddie Mac and other government-sponsored or government-related entities may be adversely affected by past or future credit rating downgrades. Further, the FHLBs, Fannie Mae and Freddie Mac may face higher costs of capital that could reduce their lending and secondary mortgage market activities, respectively, or increase the cost of any future advances which we may borrow from the Federal Home Loan Bank of San Francisco. As a member of the Federal Home Loan Bank of San Francisco, we are required to maintain stock ownership at least equal to 2.7% of outstanding advances. Negative credit rating actions with respect to U.S. government obligations may have unpredictable impacts on financial markets and economic conditions in the United States and abroad, which could in turn have a material adverse effect on our business, results of operations, financial condition or liquidity.

Our loan portfolio possesses increased risk due to our level of adjustable-rate loans.

Our loan portfolio primarily consists of adjustable-rate loans. Any rise in prevailing market interest rates may result in increased payments for some borrowers who have adjustable-rate loans, increasing the possibility of defaults. This could have an adverse effect on our business, results of operations or financial condition.

We may not be able to sell loans in the secondary market, which may adversely impact our ability to manage our growth.

We sell a portion of our loans that we originate in the secondary market. If secondary mortgage market conditions were to deteriorate in the future and we cannot sell loans at our desired levels, our loan origination volume may be limited. As a result, our ability to create new relationships and manage our growth, as well as our revenue from loan sales and servicing, would be limited, and our business, results of operations or financial condition may be adversely affected.

Strategic Risk

We face significant competition to attract and retain banking clients.

We operate in the highly competitive banking industry and face significant competition for banking clients from other banks and financial institutions located both within and beyond our principal markets. We compete with commercial banks, savings and loan associations, mortgage companies, insurance companies, credit unions, non-bank financial services companies, money market funds, brokerage firms and other financial institutions operating within or near the areas we serve, particularly service-focused community banking institutions that target the same clients we do. We also face competition for home loans from large, nationwide banks and for deposits from nationwide and regional banks specializing in private banking. Additionally, we compete with companies that solicit loans and deposits or offer asset management services in our principal markets or over the Internet.

Many of our non-bank competitors are not subject to the same extensive regulations that govern our activities and may have greater flexibility in competing for business. Many of our competitors are also larger and have significantly more resources, greater name recognition and larger market shares than we do, enabling them to maintain more banking locations, mount extensive promotional and advertising campaigns, be more aggressive than we are in competing for loans and deposits, and offer additional products and services. Certain of our similarly sized competitors may be acquired by larger institutions, thus giving them certain incremental competitive advantages. We expect competition to continue to intensify due to the continuing consolidation of many financial institutions. The financial services industry could become even more competitive as a result of legislative, regulatory and technological changes. Additionally, some of our current commercial banking clients may seek alternative banking sources as they develop needs for credit facilities larger than we may be able to accommodate.

In addition, technology has lowered barriers to entry and made it possible for non-banks to offer products and services traditionally provided by banks, such as automatic transfer and automatic payment systems. In addition, we compete with other alternative lenders, including “marketplace” lenders, peer-to-peer lenders, and other FinTech lenders. Our ability to compete successfully will depend on a number of factors, including, among other things:

- Our ability to build and maintain long-term client relationships while ensuring safe and sound banking practices;
- The scope, relevance and pricing of products and services offered to meet client needs and demands;
- The regulatory environment for FinTech lenders as compared to traditional banks;
- Our ability to attract, retain and develop key personnel;
- Our ability to respond to rapid technological change;
- Client satisfaction with our products and services; and
- Industry and general economic trends.

Our failure to perform or weakness in any of these areas could significantly and negatively impact our competitive position, which could adversely affect our growth and profitability, which, in turn, could have a material adverse effect on our business, results of operations or financial condition. See "Item 1. Business—Competition."

We face significant competition to attract and retain wealth management clients.

We face significant competition to attract and retain wealth management clients primarily from commercial banks, trust companies, mutual funds, investment advisory firms, brokerage firms, investment companies, insurance companies, and other financial services companies. We also compete with private equity firms, venture capital, hedge funds and other alternative investment firms, and Internet-based companies. Competition is especially keen in our principal markets because numerous well-established and successful investment advisory and brokerage firms exist throughout each of the markets in which we operate. In addition, the Bank faces increased competition from firms offering lower-priced investment products and services, including automated investment management services and index funds. Our ability to successfully attract and retain wealth management clients will depend on, among other things, our ability to compete with our competitors' scope and quality of investment products and services offered, level of investment performance, price, client services, marketing and distribution capabilities. In addition, our ability to retain wealth management clients may be impaired by the fact that investment advisory and brokerage contracts are typically terminable at will. Most of our clients may withdraw funds from accounts under management or administration at their discretion or close accounts at any time for any reason, including the performance of the investment account, a change in an investment strategy, change in investment advisor or any other reason in their discretion. If we cannot effectively compete to attract and retain clients, our business, results of operations or financial condition may be adversely affected.

The profitability of our wealth management business could be impacted by investments in acquiring assets and key personnel and the costs of maintaining and improving a business platform that can support a substantial asset base. Profitability in this area is also a function of the incurrence of legal and compliance costs and the management of lower-margin assets, such as sub-advisory, brokerage, money market and custody assets that support our overall client service and relationship model. Further increased costs in our wealth management business could materially and adversely affect our business, results of operations or financial condition.

Our wealth management business is highly dependent on investment managers and wealth advisors to produce investment returns and to solicit and retain clients. The market for investment managers and wealth advisors is extremely competitive and is increasingly characterized by frequent movement of such persons among different firms. In addition, our individual investment managers and wealth advisors often have regular direct contact with particular clients, which can lead to a strong client relationship based on the client's trust in the individual manager or advisor. The loss of a key investment manager or wealth advisor could jeopardize our relationships with our clients and lead to the loss of client accounts. Losses of such accounts could materially and adversely affect our results of operations or financial condition.

Our ability to maintain, attract and retain client relationships is highly dependent on our reputation and damage to our reputation could also impair the confidence of our employees, counterparties, business partners and investors.

Our clients rely on us to deliver superior, highly personalized financial services with the highest standards of ethics, performance, professionalism and compliance. A significant source of new clients has been, and we expect will continue to be, the reputation we maintain and the recommendations of satisfied clients. Damage to our reputation could undermine the confidence of our current and potential clients in our ability to provide financial services. Such damage could also impair the confidence of our employees, counterparties, business partners and investors, may adversely affect our business, results of operations or financial condition and expose us to litigation and regulatory action.

Maintenance of our reputation depends not only on our success in maintaining our service-focused culture and controlling and mitigating our various risk exposures, including those described in this Annual Report on Form 10-K. In addition, negative public opinion may result from actual or alleged issues in areas such as potential conflicts of interest, AML, lending and loan servicing practices, client personal information, cybersecurity and privacy issues, record-keeping, discriminating or harassing behavior, compensation or sales practices, environmental, social and governance practices and disclosures, legal and regulatory compliance, and actions taken by government regulators, community organizations, and social and environmental activists in response thereto. Adverse or misleading publicity or information distributed on social media websites or other media, whether or not factually correct, may also harm our reputation, which may adversely affect our business, results of operations or financial condition.

Maintaining our reputation also depends on our ability to successfully prevent third-parties from infringing on the "First Republic" brand and associated trademarks. Defense of our reputation and our trademarks, including through litigation, could result in costs adversely affecting our business, results of operations or financial condition.

We may not be able to manage our growth successfully.

We seek to grow safely and consistently. Successful and safe growth requires that we follow adequate loan underwriting standards, balance loan, investment portfolio and deposit growth without increasing interest rate risk or compressing our net interest margin, maintain satisfactory regulatory capital at all times, raise capital in advance of growth, scale our operations and systems to support our growth, employ an effective risk management framework and hire and retain qualified employees. Growth may place significant demands on our operations and management. If we do not manage our growth successfully, then our business, results of operations or financial condition may be adversely affected. New offices that we open in connection with our growth may not be successful or otherwise satisfy expectations, and any plans to open new offices may change.

We face competition with respect to our deposits. The inability to maintain or grow our deposits could force us to use more expensive and less stable sources of funding.

Deposits provide us with a stable, low-cost source of funding. We face significant competition from other financial institutions with respect to deposit accounts. Most deposit accounts do not have significant restrictions on withdrawal, and clients can generally withdraw some or all of the funds in their accounts with us upon little or no notice.

If we need to offer higher interest rates to maintain current clients or attract new clients, our interest expense on deposits will increase, perhaps materially, and there is no guarantee that we may be able to offer high enough interest rates to maintain current clients or attract new clients. An outflow of deposits because clients seek investments with higher yields or greater financial stability, prefer to do business with our competitors, or for other reasons could force us to rely more heavily on borrowings and other sources of funding to fund our business and meet withdrawal demands, adversely affecting our net interest margin. We may also be forced, as a result of any outflow of deposits, to rely more heavily on equity to fund our business, resulting in greater dilution of our existing shareholders. The occurrence of any of these events could materially and adversely affect our business, results of operations or financial condition.

Adverse changes in the ratings for our long-term debt or preferred stock could have a material adverse effect on our business, financial condition and liquidity and may increase our funding costs or impair our ability to effectively compete for business and clients.

The major rating agencies regularly evaluate us and their ratings of our long-term debt and preferred stock based on a number of factors, including our financial strength and conditions affecting the financial services industry generally. In general, rating agencies base their ratings on many quantitative and qualitative factors, including capital adequacy, liquidity, asset quality, business mix and level and quality of earnings, and we may not be able to maintain our current credit ratings and preferred stock ratings. Our ratings remain subject to change at any time, and it is possible that any rating agency will take action to downgrade us in the future.

The ratings for our debt securities and preferred stock impact our ability to obtain funding. Reductions in any of the ratings for our debt securities or preferred stock could adversely affect our ability to borrow funds and raise capital. Downgrades in our ratings could trigger additional collateral or funding obligations, which may adversely impact our liquidity. Therefore, any negative credit rating actions could have a material adverse effect on our business, results of operations, financial condition or liquidity.

Furthermore, our clients and counterparties may be sensitive to the risks posed by a downgrade to our ratings and may terminate their relationships with us, may be less likely to engage in transactions with us, or may only engage in transactions with us at a substantially higher cost. We cannot predict the extent to which client relationships or opportunities for future relationships could be adversely affected due to a downgrade in our ratings. The inability to retain clients or to effectively compete for new business may have a material and adverse effect on our business, results of operations or financial condition.

Additionally, rating agencies themselves have been subject to scrutiny arising from the financial crisis. As a result, or for unrelated reasons, the rating agencies may make or may be required to make substantial changes to their ratings policies and practices. Such changes may, among other things, adversely affect the ratings of our securities or other securities in which we have an economic interest.

We may not be able to attract and retain key personnel, which could adversely affect our business objectives.

Our Chairman and Chief Executive Officer has significant involvement and experience with our operations, having been our founding CEO and having worked with us since First Republic was founded in 1985. As a result, the loss of our Chairman and CEO could have an adverse effect on our business, results of operations or financial condition. Although we have been successful in hiring and promoting experienced professionals on our management team, we need to continue to develop and retain senior management and have the ability to attract qualified individuals to succeed existing key personnel to ensure the continued growth and successful operation of our business. Because we specialize in providing relationship-based banking and wealth management services, we need to continue to attract and retain qualified private banking personnel and wealth managers to expand.

Competition for such personnel can be intense, and we may not be able to hire or retain such personnel. The loss of the services of any senior management personnel, relationship managers or wealth managers, or the inability to recruit and retain qualified personnel in the future, including to succeed key personnel, could have an adverse effect on our business, results of operations or financial condition. Additionally, to attract and retain personnel with appropriate skills and knowledge to support our business or succeed key personnel, we may offer a variety of benefits which may reduce our earnings or adversely affect our business, results of operations or financial condition.

We may take actions to maintain client satisfaction that result in losses or reduced earnings.

We may find it necessary to take actions or incur expenses in order to maintain client satisfaction even though we are not required to do so by law. The risk that we will need to take such actions and incur the resulting losses or reductions in earnings is greater in periods when financial markets and the broader economy are performing poorly or are particularly volatile. As a result, such actions may adversely affect our business, results of conditions, or financial condition perhaps materially.

We may be adversely affected by risks associated with completed and potential acquisitions.

We plan to continue to grow our business organically, although, from time to time, we may consider potential acquisition opportunities that we believe complement our activities and have the ability to enhance our profitability, including acquisitions of wealth management and related businesses. Acquisitions involve numerous risks, including:

- The risk that certain material information was not adequately disclosed during the due diligence process;
- The risk that the acquired business accounted for certain items outside of financial accounting and reporting standards;
- The risk that the acquired business will not perform to our expectations;
- Difficulties, inefficiencies or cost overruns in integrating the personnel, operations, services and products of the acquired business with ours;
- The diversion of management's attention from other aspects of our business;
- Entering geographic and product markets in which we have limited or no direct prior experience;
- The potential loss of key employees; and
- The potential for liabilities and claims arising out of the acquired businesses.

If we were to consider acquisition opportunities, we expect to face significant competition from numerous other financial services institutions, many of which will have greater financial resources than we do. Accordingly, attractive acquisition opportunities may not be available. We may not be successful in identifying or completing any future acquisitions, integrating any acquired business into our operations or realizing any projected cost savings or other benefits associated with any such acquisition.

We must generally satisfy a number of meaningful conditions prior to completing any acquisition, including, in certain cases, federal and state bank and other regulatory approvals. Bank regulators consider a number of factors when determining whether to approve a proposed transaction, including the ratings and compliance history of all institutions involved, the AML and BSA compliance history of all institutions involved, CRA examination results and the effect of the transaction on financial stability. The process for obtaining required regulatory approvals has become substantially more difficult as a result of the financial crisis, which could affect our future business. We may fail to pursue, evaluate or complete strategic and competitively significant business opportunities as a result of our inability, or our perceived inability, to obtain required regulatory approvals in a timely manner or at all.

Operational and Technology Risk

Our operations could be interrupted if our third-party service providers experience financial difficulty, terminate their services or fail to comply with banking regulations.

We depend to a significant extent on a number of relationships with third-party service providers, including Internet, mobile technology and cloud service providers. Specifically, we receive core systems processing, essential web hosting and other Internet systems, deposit processing, wire processing and other processing services from third-party service providers. If these third-party service providers experience difficulties, do not perform the relevant services properly or terminate their services and we are unable to replace them with other service providers, our operations could be interrupted. While we conduct due diligence prior to engaging with third party vendors and perform ongoing monitoring of vendor controls as part of our vendor management policies and practices, these policies and practices cannot eliminate this risk. If an interruption were to continue for a significant period of time, our business, results of operations or financial condition could be adversely affected, perhaps materially, and we may be subject to regulatory action. Even if we are able to replace them, it may be at higher cost to us, which could adversely affect our business, results of operations or financial condition.

We face risks related to the ability of our information technology systems to support our existing operations and future growth.

We have developed, and are continuously developing, information technology and other systems and processes to support our business operations. As our business grows, we continue to invest in and enhance these systems and processes. The financial services industry experiences rapid technological change with regular introductions of new technology-driven products and services, and the ability to access and use technology is an increasingly important competitive factor in the financial services industry. These investments and enhancements entail significant costs and create risks associated with implementing new systems and integrating them with existing ones. Specifically, our conversion to a new core banking system entails meaningful costs and execution risk and will continue to require us to dedicate substantial effort to it, during which our focus and resources may be diverted from other strategic opportunities and operational matters. If not implemented effectively, these changes may result in business interruptions, client losses, additional costs or damage to our reputation. Any failure in our information technology systems as a result of such changes could have an adverse effect on our business, results of operations or financial condition, perhaps materially.

The network and computer systems on which we depend could fail or experience a security breach.

Our computer systems are vulnerable to unforeseen problems, which is further heightened by our increased use of mobile and cloud technologies. Because we conduct our business over the Internet and outsource several critical functions to third-parties, our operations depend on our ability, as well as that of third-party service providers, to protect computer systems and network infrastructure against cyber attacks, damage from fire, power loss, telecommunications failure, physical break-ins or similar catastrophic events. Any damage or failure that causes interruptions in operations could have a material adverse effect on our business, results of operations or financial condition.

We also rely heavily on communications and information systems to conduct our business. Any failure, interruption or breach in security of these systems, including due to hacking or other similar attempts to breach information technology security protocols, could result in failures or disruptions in our client relationship management, general ledger, deposit, loan and other systems. While we have policies and procedures designed to prevent or limit the effect of the possible failure, interruption or security breach of our information systems, there can be no assurance that any such failure, interruption or security breach will not occur or, if it does occur, that it will be adequately addressed. The occurrence of any failure, interruption or security breach of our information systems could damage our reputation, result in a loss of client business, subject us to additional regulatory scrutiny, or expose us to civil litigation and possible financial liability, any of which could adversely affect our business, results of operations or financial condition.

We may be adversely affected by disruptions to our network and computer systems or to those of our service providers as a result of denial-of-service or other cyber attacks.

We may experience disruptions or failures in our computer systems and network infrastructure or in those of our service providers as a result of denial-of-service or other cyber attacks in the future. Like the financial services industry generally, we are under continuous threat of loss as a common target of cyber attacks. This risk has increased significantly in recent years in part because of the proliferation of new technologies, such as online and mobile banking to conduct financial transactions, and the increased sophistication of the external parties behind cyber attacks. In addition, the techniques used in such attacks change frequently, may not be recognized until launched and can be initiated from a variety of sources.

In recent years, federal and state regulators, including the FDIC, SEC, and FINRA, have made statements concerning cybersecurity risk management, preparedness and resiliency for financial institutions such as us. These statements range from issues with respect to client account protections to business continuity, and represent the regulators' expectations for financial institutions to have more robust cybersecurity risk management and a preparedness and resiliency program for themselves and their service providers. A financial institution is also expected to develop processes to enable recovery of data and business operations and address rebuilding network capabilities and restoring data if the institution, or its critical service providers, fall victim to this type of cyber attack.

We have developed and continue to invest in, systems and processes that are designed to detect, prevent and minimize the impact of security breaches and cyber attacks. However, due to the increasing sophistication of such attacks, we may not be able to prevent denial-of-service or other cyber attacks that could compromise our normal business operations or the normal business operations of our clients, or result in the unauthorized use of clients' confidential and proprietary information. The occurrence of any failure, interruption or security breach of network and computer systems resulting from denial-of-service or other cyber attacks could impact our ability to operate and serve our clients, damage our reputation, result in a loss of client business, subject us to additional regulatory scrutiny, or expose us to civil litigation and possible financial liability, any of which could adversely affect our business, results of operations or financial condition.

We are subject to certain operational risks, including fraud by employees and third parties and data processing system failures and errors.

Due to COVID-19 and related shelter-in-place and work-from-home orders, we have had to operate under restrictions on our workforce's access to our facilities, as well as restrictions on access to our branches by our customers. Continued restrictions could limit our ability to meet client servicing expectations and have a material adverse effect on our operations. We rely on business processes and branch activity that largely depend on people and technology, including access to information technology systems as well as information, applications, payment systems and other services provided by third parties. In response to COVID-19, we have modified our business practices with a portion of our employees working remotely from their homes to have our operations uninterrupted as much as possible. Further, technology in employees' homes may not be as robust as in our offices and could cause the networks, information systems, applications, and other tools available to employees to be more limited or less reliable than in our offices. The continuation of these shelter-in-place and work-from-home measures also introduces additional operational risk, including increased cybersecurity risk. These cyber risks include greater phishing, malware, and other cybersecurity attacks, vulnerability to disruptions of our information technology infrastructure and telecommunications systems for remote operations, increased risk of unauthorized dissemination of confidential information, limited ability to restore the systems in the event of a systems failure or interruption, greater risk of a security breach resulting in destruction or misuse of valuable information, and potential impairment of our ability to perform critical functions, including wiring funds, all of which could expose us to risks of data or financial loss, litigation and liability and could seriously disrupt our operations and the operations of any impacted clients.

We are also subject to other operational risks related to employee, customer and third-party fraud or theft and data processing system failures and errors. Fraudulent activities may take many forms, including online payment transfer fraud, debit card fraud, check fraud, fraud related to ATM machines, phishing attacks, social engineering, identity theft, account takeover and other dishonest attacks. Because the nature of the financial services business involves a high volume of transactions, certain errors may be repeated or compounded before they are discovered and successfully rectified. These fraudulent activities and system errors may result in financial losses or increased costs to us or our clients, disclosure or misuses of our information or our client information, misappropriation of assets, privacy breaches against our clients, litigation or damage to our reputation.

We maintain a system of internal controls designed to prevent, detect and mitigate against such occurrences and maintain insurance coverage for such risks. However, should such an event occur that is not prevented or detected by our internal controls, or is uninsured or in excess of applicable insurance limits, such an event could result in regulatory actions and have a significant adverse effect on our business, results of operations or financial condition.

Moreover, we rely on many third-parties in our business operations, including appraisers of the real property collateral, vendors that supply essential services such as providers of financial information, systems and analytical tools and providers of electronic payment and settlement systems, and local and federal government agencies, offices, and courthouses. In light of the developing measures responding to the pandemic, many of these entities may limit the availability of and access to their services. For example, loan originations could be delayed due to the limited availability of real estate appraisers for the collateral. Loan closings could be delayed related to reductions in available staff in recording offices or the closing of courthouses in certain counties, which slows the process for title work, mortgage and UCC filings in those counties. Our ability to raise equity could be delayed by closures to or reductions in available staff at the California Secretary of State which slows the process of corporate filings. If the third-party service providers continue to have limited capacities for a prolonged period or if additional limitations or potential disruptions in these services materialize, it may negatively affect our operations.

We rely on the accuracy and completeness of information about our clients and counterparties.

In deciding whether to extend credit or enter into other transactions with clients and counterparties, we may rely on information furnished by or on behalf of clients and counterparties, including financial statements and other financial information. We may also rely on representations of clients and counterparties as to the accuracy and completeness of that information and, with respect to financial statements, on reports of independent auditors. If this information is inaccurate or incomplete, we may be subject to credit losses, regulatory action, reputational harm or other adverse effects on the operation of our business, results of operations or financial condition.

The systems and models we employ to analyze, monitor and mitigate risks, as well as for other business purposes, are inherently limited, may be not be effective in all cases and, in any case, cannot eliminate all risks that we face.

We use various systems and models in analyzing and monitoring several risk categories, as well as for other business purposes, including determining our ACL. However, these systems and models are inherently limited because they involve techniques and judgments that cannot anticipate every economic and financial outcome in the markets in which we operate, nor can they anticipate the specifics and timing of such outcomes. Further, these systems and models may fail to quantify accurately the magnitude of the risks we face. Our measurement methodologies rely on many assumptions and historical analyses and correlations. These assumptions may be incorrect, and the historical correlations on which we rely may not continue to be relevant. Consequently, the measurements that we make may not adequately capture or express the true risk profiles of our businesses or provide accurate data for other business purposes, each of which ultimately could have a negative impact on our business, financial condition and results of operations. Errors in the underlying model or model assumptions, or inadequate model assumptions, could result in unanticipated and adverse consequences to our business or financial condition, including material losses or noncompliance with regulatory requirements or expectations.

Failure to properly manage and aggregate data may result in our inability to manage risk and business needs and inaccurate financial, regulatory and operational reporting.

We rely on our ability to manage, aggregate, interpret and use data in an accurate, timely and complete manner for effective risk reporting and management. Our policies, programs, processes and practices govern how data is managed, aggregated, interpreted and used. While we continuously update our policies, programs, processes and practices, and implement emerging technologies, our data management and aggregation processes are subject to failure, including human error or system failure. Failure to manage data effectively and to aggregate data in an accurate, timely and complete manner may limit our ability to manage current and emerging risk, to produce accurate financial, regulatory and operational reporting as well as to manage changing business needs. The failure to establish and maintain effective, efficient and controlled data management could adversely affect our business, results of operations or financial condition.

Liquidity Risk

We are subject to liquidity risk, which could impair our ability to fund various obligations.

We require liquidity in the normal course of business to meet our deposit and debt obligations as they come due. Our access to funding sources in amounts adequate to finance our activities or on terms that are acceptable to us could be impaired by factors that affect us specifically or the financial services industry or economy generally. Factors that could detrimentally impact our access to liquidity sources at a reasonable cost include a downturn in the geographic markets in which our loans are concentrated, difficult credit markets, changes in credit ratings, or adverse regulatory actions against us. Our access to deposits as a primary funding source may also be affected by external factors such as the liquidity needs of our depositors and changes in interest rates and returns on other investment classes, which could result in a significant outflow of deposits. In particular, a majority of our liabilities on average during 2020 were checking accounts, money market checking and savings deposits, which are payable on demand or upon several days' notice, while by comparison, a substantial majority of our assets were loans, which cannot be called or sold in the same time frame. Although we have been able to replace maturing deposits and advances historically as necessary, we might not be able to replace such funds in the future, especially if a large number of our depositors or those depositors with significant balances of deposits sought to withdraw their accounts, regardless of the reason. A failure to maintain adequate liquidity could materially and adversely affect our business, results of operations or financial condition.

Financial Reporting Risk

Our financial results depend on management's selection of accounting methods and certain assumptions and estimates.

Our accounting policies and methods are fundamental to how we record and report our results of operations and financial condition. Our management must exercise judgment in selecting and applying many of these accounting policies and methods so they comply with GAAP and reflect management's judgment of the most appropriate manner to report our financial condition and results. In some cases, management must select the accounting policy or method to apply from two or more alternatives, any of which may be reasonable under the circumstances, yet may result in our reporting materially different results than would have been reported under a different alternative.

Certain accounting policies are critical to presenting our financial condition and results. They require management to make difficult, subjective or complex judgments about matters that are uncertain. Materially different amounts could be reported under different conditions or using different assumptions or estimates. These accounting policies include the ACL on loans and the accounting for income taxes. Because of the uncertainty of estimates involved in these matters, we may be required to do one or more of the following: significantly increase the ACL or sustain credit losses that are significantly higher than the reserve provided, or significantly increase our accrued tax liability or decrease the value of DTAs. Any of these could adversely affect our business, results of operations or financial condition.

Our ACL on loans, unfunded loan commitments, and held-to-maturity debt securities may be inadequate.

Effective January 1, 2020, the Bank adopted new guidance for estimating credit losses on its loans, unfunded loan commitments, and held-to-maturity debt securities. Under the new guidance, the ACL represents lifetime expected losses rather than incurred losses, and is recognized upon origination or purchase of a loan or held-to-maturity debt security. Our management determines the ACL based on available information, including the credit quality of the loan and investments portfolio, the types of loans and investments composing the respective portfolios, current and forecasted economic conditions, the value of the underlying collateral and the level of nonaccrual assets, where applicable. Although our management has established an ACL it believes is adequate to absorb expected credit losses, it is an estimate requiring difficult, subjective and complex judgments about matters that are uncertain, which may result in an inadequate ACL. If deterioration in the general economy or in our principal markets occurs, this could result in a decrease in credit quality of our loans or investments and our ACL may be inadequate. In addition, if an earthquake or other natural disaster were to occur in one of our principal markets, increases in the ACL may also be necessary to absorb expected credit losses in our loan and investment portfolio. Such increases in our ACL will result in additional provision for credit losses, which will reduce our net income, and our business, results of operations or financial condition may be materially and adversely affected.

The federal banking agencies, as an integral part of their supervisory functions, periodically review our loan portfolio and related ACL. These regulatory agencies may require us to increase our provision for credit losses for loans or to recognize further loan charge-offs based upon their judgments, which may be different from ours. In addition, changes to the accounting standards that govern financial reporting related to loans may result in unanticipated effects on the timing or amount of our loan losses. An increase in the ACL required by the federal banking agencies or the unanticipated recognition of losses on our loans could materially adversely affect our financial condition and results of operations.

If we fail to maintain internal controls over financial reporting, we may not be able to accurately report our financial results, which could harm our reputation and have a negative effect on the price of our common stock.

The Sarbanes-Oxley Act of 2002 requires our management to evaluate the Bank’s disclosure controls and procedures and its internal control over financial reporting and requires our auditors to issue a report on our internal control over financial reporting. As we continue to grow, our internal controls may become more complex and require additional resources to ensure they remain effective amidst dynamic regulatory and other guidance. Additionally, our SOX program office provides an independent assessment and testing of our internal controls, policies, and procedures. Failure to maintain effective controls over financial reporting or implement new or improved controls may harm our operating results or cause us to fail to meet our reporting obligations. We are required to disclose, in our Annual Report on Form 10-K, the existence of any “material weaknesses” in our internal controls. The identification of one or more material weaknesses as of the end of any given quarter or year could result in increased regulatory scrutiny or litigation risk and could have a negative impact on our reputation, results of operations or financial condition, as well as the price of our common stock.

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

A significant decline in our expected future cash flows, a significant adverse change in the business climate, slower growth rates, a significant and sustained decline in the price of our common stock or the poor performance of an acquired business may require us to take charges in the future related to the impairment of our goodwill and other intangible assets. An increase in the rate at which our borrowers prepay their loans could result in a decline in the value of our MSRs, resulting in a charge for the impairment of those rights. The loss of several of our relationship managers to a competitor may also result in a charge against our goodwill and other intangible assets. If we were to conclude that a future write-down of our goodwill and other intangible assets is necessary, we would record the appropriate charge, which could have a material adverse effect on our business, results of operations or financial condition.

Legal and Regulatory Risk

The banking industry is highly regulated, and legislative or regulatory actions taken now or in the future may have a significant adverse effect on our operations, including increased legal and compliance costs.

The banking industry is extensively regulated and supervised under both federal and state laws and regulations that are intended primarily to protect depositors, the public, the DIF, and the banking and financial systems as a whole, not our shareholders or debtholders. We expect that our business will remain subject to extensive regulation and supervision and that the level of scrutiny and the enforcement environment may fluctuate over time, based on numerous factors, including changes in the United States presidential administration or one or both houses of Congress and public sentiment regarding financial institutions (which can be influenced by scandals and other incidents that involve participants in the industry). We are subject to the regulation and supervision of the FDIC, the DFPI and the CFPB. The banking laws, regulations and policies applicable to us govern matters ranging from the regulation of certain debt obligations, changes in the control of us and the maintenance of adequate capital to the general business operations conducted by us, including permissible types, amounts and terms of loans and investments, the amount of reserves held against deposits, restrictions on dividends, establishment of new offices and the maximum interest rate that may be charged by law. In addition, certain of our subsidiaries are subject to regulation, supervision and examination by other regulatory authorities, including the SEC and FINRA. See "Item 1. Business—Supervision and Regulation" above for more information on the laws and regulations applicable to us.

We are subject to changes in federal and state banking statutes, regulations and governmental policies, and the interpretation or implementation of them. Regulations affecting banks and other financial institutions in particular undergo continuous review and frequently change and the ultimate effect of such changes cannot be predicted. Regulations and laws may be modified at any time, and new legislation may be enacted that will affect us or our subsidiaries. Recent political developments have added additional uncertainty to the implementation, scope and timing of changes in regulations. Changes in federal and state laws, as well as regulations and governmental policies, have resulted in increased compliance costs, and future legal or regulatory changes could affect us in substantial and unpredictable ways, including by limiting the types of financial services and products we may offer, increasing our litigation and regulatory costs (including if we fail to comply appropriately with new or modified legal or regulatory requirements), altering the investments we make, increasing the ability of non-bank competitors to offer competing products and services, and other ways that may adversely affect our business, results of operations or financial condition.

Federal and state banking regulators have broad authority to supervise our banking business and that of our subsidiaries, including the authority to prohibit activities that represent unsafe or unsound banking practices or constitute violations of statute, rule, regulation, or administrative order. Failure to appropriately comply with any such laws, regulations or regulatory policies could result in sanctions by regulatory agencies, civil money penalties or damage to our reputation, all of which could adversely affect our business, results of operations or financial condition. For example, federal banking agencies have increased their focus on compliance with consumer protection laws and BSA and AML regulations, and we expect this focus to continue. There have been a number of significant enforcement actions by regulators, as well as state attorneys general and the Department of Justice, against banks, broker-dealers and non-bank financial institutions with respect to AML and sanctions laws and some have resulted in substantial penalties, including criminal pleas and/or admissions of wrongdoing. Any such enforcement action or settlement could have significant consequences for a financial institution, including loss of customers, reputational harm, increased exposure to civil litigation, restrictions on the ability to access the capital markets, and the inability to operate certain businesses or offer certain products for a period of time. We have expended significant resources to enhance, and we continue to enhance, our compliance programs. These enhancements, as well as any enhancements in other compliance areas that may be required in the future, will result in incremental professional fees and personnel costs, may limit our ability to offer competitive products to our clients and may divert resources from our ongoing business development activities. Notwithstanding our enhancements to these compliance programs, regulators may impose additional requirements on us or require us to take additional actions which could increase our costs, decrease our revenues or net income and reduce or restrict our ability to expand and effectively compete.

In addition, the CFPB has broad rulemaking, supervisory and enforcement powers under various federal consumer financial protection laws. The CFPB also has examination and primary enforcement authority with respect to depository institutions with $10 billion or more in assets, their service providers and certain non-depository entities such as mortgage companies, payday lenders, debt collectors and consumer reporting agencies. Since its formation, the CFPB has finalized a number of significant rules that could have a significant impact on our business and the financial services industry more generally. Depending on the CFPB's areas of supervisory and future rulemaking focus, it could have an adverse impact on our business, increase our compliance costs and potentially delay our response to marketplace changes.

The enactment of the EGRRCPA in May 2018 altered several provisions of the Dodd-Frank Act and had a limited effect on the Bank. See "Item 1. Business—Supervision and Regulation" for additional details on the laws and regulations applicable to us, including relevant provisions of the EGRRCPA and related regulations. The nature, extent, timing and impact of any future changes to the Dodd-Frank Act and related regulatory requirements or other laws and regulations impacting our business cannot be predicted. If further legislation or regulations are implemented or repealed, it may be time-consuming and expensive for us to alter our internal operations in order to comply with such changes.

There have been a number of recent bank regulatory actions and legislative changes intended to help mitigate the adverse economic impact of COVID-19 on borrowers, including mandates requiring financial institutions to work constructively with borrowers affected by COVID-19. In addition, states, including California, have adopted, through a mix of executive orders, regulations, and judicial orders, temporary bans on evictions and foreclosures, and flexibility regarding rental payments, such as the use of security deposits to pay rent. Federal moratoriums on evictions and foreclosures have generally been extended until March 31, 2021 and may be further extended if the adverse impact of COVID-19 on borrowers continues.

As a result of the current regulatory environment and our growth in recent years, we have made and expect to continue to make substantial investments in our legal, regulatory, audit and compliance infrastructure. Our expenses associated with our legal, regulatory, audit and compliance infrastructure have increased and could also be higher than anticipated in the future, which may adversely impact our results of operations.

The investment management and brokerage businesses are highly regulated.

The investment management and brokerage business are highly regulated, primarily at the federal level. One of our subsidiaries, FRIM, is a registered investment adviser under the Investment Advisers Act of 1940, as amended ("Investment Advisers Act"), and FRSC is a registered broker-dealer regulated by the SEC, FINRA and state regulatory agencies. The Investment Advisers Act imposes numerous obligations on federally registered investment advisers, including fiduciary, record-keeping, operational and disclosure obligations.

FRIM is also subject to the provisions and regulations of the U.S. Employee Retirement Income Security Act of 1974, as amended ("ERISA") to the extent it acts as a "fiduciary" under ERISA with respect to certain of its clients. ERISA and the applicable provisions of the federal tax laws impose a number of duties on persons who are fiduciaries under ERISA and prohibit transactions involving the assets of each ERISA plan that is a client, as well as certain transactions by the fiduciaries (and certain other related parties) to such plans. FRIM and FRSC are also both licensed and regulated under state law as insurance agencies, and FRIM is registered as a commodity pool operator and commodity trading adviser with the CFTC and a member of the NFA in connection with advising wealth management clients on investments in commodity pools and serving as adviser to private funds that invest in commodity pools. The relationships between the Bank and its subsidiaries and the private funds advised by FRIM are subject to restrictions and requirements under the Volcker Rule.

In June 2019, the SEC issued a set of final rules to limit conflicts of interest for non-retirement and retirement accounts, and which include establishing a "best interest" standard of conduct for broker-dealers when making a recommendation on any securities transaction or investment strategy to a retail customer and clarify certain aspects of the fiduciary duty that a registered investment adviser owes to its clients. In addition, the SEC issued a final rule that requires broker-dealers and investment advisers to provide a standardized summary disclosure to retail customers describing their relationship with and services offered by the broker dealer or investment adviser. These final rules may be modified or supplemented by the SEC. Certain states are also advancing their own standard of conduct for investment advisers and broker-dealers. The impact of these new regulations is uncertain and difficult to predict, and, could have varying implications for our business, including, among other things, the products and services that we are able to provide to our clients, and the new regulations could result in increases in compliance and other costs.

Our failure or the failure of our subsidiaries that provide investment management services, brokerage services, or any related regulated services to comply with applicable laws or regulations could result in civil or criminal monetary penalties, fines or restitution, suspensions of individual employees, or other sanctions, including revocation of such subsidiary's registration as an investment adviser or otherwise. Any such failure could have an adverse effect on our reputation and could adversely affect our business, results of operations or financial condition.

We are subject to stringent capital requirements, which impact our ability to conduct business.

We are subject to regulatory requirements specifying minimum amounts and types of capital that we must maintain. See "Item 1. Business—Supervision and Regulation—Capital Requirements" for additional information. If we fail to meet these minimum capital rules and other regulatory requirements, we or our subsidiaries may be restricted in the types of activities we may conduct and we may be prohibited from taking certain capital actions, such as paying dividends and repurchasing or redeeming capital securities.

Although we meet the requirements of the Basel III Capital Rules, including the capital conservation buffer, we may fail to do so in the future. In addition, these requirements could have a negative impact on our ability to lend, grow deposit balances, make acquisitions or make capital distributions in the form of increased dividends or share repurchases. Higher capital levels could also lower our return on equity.

We may become subject to more stringent liquidity requirements, which could adversely impact our operations and future growth.

As a banking organization, our liquidity is subject to supervision by our banking regulators. Because we are a state-chartered, non-member bank without a bank holding company, and with less than $75 billion in each of non-bank assets, off-balance sheet exposure, weighted short-term wholesale funding and cross-jurisdictional activities, we currently are not subject to the LCR Rule or the NSFR. See "Item 1. Business—Supervision and Regulation—Liquidity Rules" for additional information. Nevertheless, we maintain on-balance sheet liquidity and a portfolio of HQLA, and our regulators monitor our liquidity as part of their regular supervisory process. If we fail to maintain adequate liquidity, we could become subject to a variety of formal or informal enforcement actions, which may include restrictions on our business activities.

It is possible that we may become subject to LCR and NSFR requirements or other heightened liquidity requirements in the future as a result of further growth, or if the FDIC or the federal banking agencies apply such requirements to us as a supervisory matter. As a result, we could be required to increase our holdings of HQLA or other liquidity resources, such as Federal Reserve Bank balances and U.S. Treasury securities, and increase the use of long-term debt as a funding source. Increasing our holdings of lower-yielding assets and our use of higher-cost liabilities would reduce our net interest income and could limit our loan and deposit growth and our ability to attract and retain new clients, all of which could adversely affect our business, results of operations and financial conditions.

Differences in regulation can affect our ability to compete effectively.

The content and application of laws and regulations applicable to financial institutions vary according to the size of the institution, the jurisdictions in which the institution is organized and operates and other factors. We may be subject to more stringent regulatory requirements and supervision than smaller institutions. In addition, FinTech companies and other non-bank competitors may not be subject to banking regulation, or may be regulated by a national or state agency that does not have the same regulatory priorities or supervisory requirements as our regulators. These differences in regulation can impair our ability to compete effectively with competitors that are less regulated and that do not have similar compliance costs.

Reforms of Fannie Mae and Freddie Mac and the FHLBs could reduce demand for residential mortgage loans, limit our ability to sell residential mortgage loans in the secondary market and affect our funding sources.

The U.S. Congress may consider reforms to the federal government's involvement in the housing market. Reforms could include reducing the scale of Fannie Mae's and Freddie Mac's secondary purchases of residential mortgage loans or winding down these entities entirely. This could significantly reduce the amount of residential mortgage loans that we can sell in the secondary market, which would limit the amount of loans we can originate and in turn limit our ability to create new relationships, manage our growth and earn revenue from loan sales and servicing. Reforms could also include cutting back or eliminating the FHLB system, which could remove a significant source of term funding for our lending activities and likewise limit our ability to originate loans and manage our interest rate risk. Such reforms could also raise interest rates for residential mortgage loans, thereby reducing demand for our primary lending products, and could have an adverse effect on our business, results of operations or financial condition.

We could be held responsible for environmental liabilities of properties acquired through foreclosure.

If we are forced to foreclose on a defaulted mortgage loan to recover our investment, we may be subject to environmental liabilities related to the underlying real property. Hazardous substances or wastes, contaminants, pollutants or sources thereof may be discovered on properties during our ownership or after a sale to a third-party. The amount of environmental liability could exceed the value of real property. We could be fully liable for the entire cost of any removal and clean-up on an acquired property. In addition, we may find it difficult or impossible to sell the property before or after any environmental remediation. As a result, our business, results of operations or financial condition may be adversely affected.

We are subject to legal and litigation risk, which may adversely impact our operations, reputation and financial condition.

Because the Bank is extensively regulated by a variety of federal and state agencies, and because we are subject to a wide range of business, consumer and employment laws and regulations at the federal, state and local levels, we are at risk of governmental investigations and lawsuits as well as claims and litigation from private parties. This risk is heightened when we act as a fiduciary for our clients and may be further heightened during periods when credit, equity or other financial markets are deteriorating in value or are particularly volatile, or when clients or investors are experiencing losses. We are from time to time involved in disputes with and claims from clients, government agencies, vendors, employees and other business parties, and such disputes and claims may result in litigation or settlements. Such litigation, alone or in the aggregate, may have an adverse impact on the Bank's operations, reputation, employee or customer relations, financial condition or results of operations as a result of the costs of any judgment, the terms of any settlement and/or the expenses incurred in defending the applicable claim. It is inherently difficult to assess the outcome of such litigation, and there can be no assurance that the Bank will prevail in any proceeding or litigation.

We estimate our potential liability for pending and threatened claims, and record reserves when appropriate pursuant to GAAP, by evaluating the facts of particular claims under current judicial decisions and legislative and regulatory interpretations. This process is inherently subject to risk, including the risks that a judge or jury could decide a case contrary to our evaluation of the law or the facts or that a court could change or modify existing law on a particular issue important to the case. Our earnings will be adversely affected to the extent that our reserves are not adequate.

Tax regulations could be subject to potential legislative, administrative or judicial changes or interpretations.

Federal income tax treatment of corporations and other federal and state tax provisions may be clarified and/or modified by legislative, administrative or judicial changes or interpretations at any time. Any such changes could adversely affect the Bank, either directly, or indirectly as a result of effects on the Bank's customers. The new U.S. presidential administration may make substantial changes to fiscal and tax policies that may adversely affect our business.

The amount of income taxes that we are required to pay on our earnings is based on federal and state legislation and regulations. We provide for current and deferred taxes in our financial statements based on our results of operations, business activity, legal structure and interpretation of tax statutes. We may take filing positions or follow tax strategies that are subject to audit and may be subject to challenge. Our net income may be reduced if a federal, state or local authority assessed charges for taxes that have not been provided for in our consolidated financial statements. Taxing authorities could change applicable tax laws, challenge filing positions or assess taxes and interest charges. If taxing authorities take any of these actions, our business, results of operations or financial condition could be adversely affected, perhaps materially.

Uncertainty about the future of reference rates may adversely affect our business.

Many of our loan products determine the amount of interest by reference to certain reference rates or indices of which the future is uncertain as they have become subject to recent regulatory guidance and reforms. In July 2017, the United Kingdom's FCA, which regulates LIBOR, announced that it intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021. However, the IBA more recently announced that it intends to extend publication of the most commonly used U.S. Dollar LIBOR settings to June 30, 2023 and will cease the publication of the one-week and two-month LIBOR tenors on December 31, 2021. On November 30, 2020, the Board of Governors of the Federal Reserve, the FDIC, and the OCC jointly issued a Statement on LIBOR Transition encouraging banks to cease entering into new contracts that use LIBOR as a reference rate as soon as practicable and in any event by December 31, 2021. It is not possible to know whether LIBOR will continue to be viewed as an acceptable market benchmark, what rate or rates may become accepted alternatives to LIBOR, or what the effect of any such changes in views or alternatives may have on the financial markets for LIBOR-linked financial instruments. In addition, the FHLB of San Francisco has announced that it will no longer calculate and publish COFI after January 2022.

If and when reference rates, such as LIBOR and COFI, are no longer available or if they are not an acceptable market reference rate, we will be required, or we may exercise discretion, to implement one or more substitute reference rate(s) for the calculation of interest rates under our loan agreements with our borrowers. We ceased offering new loans indexed to LIBOR in the first half of 2019 (with some limited exceptions for business loans) and to COFI in the first half of 2018 and have a transition plan in place with respect to existing loans indexed to LIBOR and COFI. In lieu of LIBOR or COFI, new loan originations are currently indexed to Prime or a 12-month average of 1-year CMT. We may incur significant expenses in effecting the transition, and may be subject to disputes or litigation with customers over the appropriateness or comparability to the prior reference rates of the substitute reference rates. In addition, developments related to reference rates could adversely affect our exposure to fluctuations in interest rates as well as the amounts we receive on, and the values of, the variable rate loans. As such, any changes to the calculation of the reference rates we currently use in our loan products, such as LIBOR or COFI, or the transition to one or more new reference rate(s) could have an adverse effect on our business, financial condition or results of operations.

Regulation of incentive compensation under the Dodd-Frank Act may adversely affect our ability to retain our key employees.

Under the Dodd-Frank Act, federal regulators are required to issue regulations relating to incentive compensation. Regulators have not yet issued these rules. Future regulations may limit the manner and amount of incentive compensation that banking organizations provide to employees, and could adversely affect our ability to attract and retain our key employees. If we were to experience such effects with respect to our employees, our business, results of operations or financial condition could be adversely affected. We are not able to predict at this time when regulators will issue incentive compensation rules, and the impact on the Bank will depend on the final form of any such rules and how they are implemented and applied.

The ability-to-repay requirement for residential mortgage loans may limit our ability to sell or securitize certain of our mortgage loans and give borrowers potential claims against us.

Under TILA, mortgage lenders are required to show that they have verified the borrower's ability to repay a residential mortgage loan (which does not include HELOCs). Borrowers could possibly claim statutory damages against us for violations of this requirement. Lenders of mortgages that meet a "qualified mortgage" standard have a safe harbor or a presumption of compliance with the requirement. Under CFPB rules, qualified mortgages cannot have negative amortization, interest-only payments, or balloon payments, terms over 30 years, or points and fees over certain thresholds.

Currently, a majority of the non-conforming mortgage loans that we originate generally have an initial interest-only period of ten years, subsequent to which these loans fully and evenly amortize over a period of generally twenty years. Such loans are not "qualified mortgages" under the standard. If institutional mortgage investors limit their mortgage purchases to "qualified mortgages," demand for our non-qualifying mortgages in the secondary market may be significantly limited in the future. We do not currently intend to discontinue originating interest-only, non-qualifying mortgages, and we may be liable to borrowers under non-qualifying mortgages for violations of the ability-to-repay requirement. If demand for our non-qualifying mortgages in the secondary market declines significantly in the future, it would limit the amount of loans we can originate and in turn limit our ability to create new relationships, manage our growth and earn revenue from loan sales and servicing, all of which could materially and adversely affect our business, results of operations or financial condition.

Increases in FDIC insurance premiums may adversely affect our earnings.

Our deposits are insured by the FDIC up to legal limits and, accordingly, we are subject to FDIC deposit insurance assessments. We generally cannot control the amount of premiums we will be required to pay for FDIC insurance. See "Item 1. Business—Supervision and Regulation—Premiums for Deposit Insurance and Assessments" for additional information. Additional increases in our assessment rate may be required in the future to achieve the targeted reserve ratio or to address the impact of future financial institution failures. Future increases of FDIC insurance premiums or special assessments, including increases as a result of any future rulemaking, may adversely affect our business, results of operations or financial condition.

Changes in consumer privacy laws, such as in California, or any non-compliance with such laws, could adversely affect our business, financial condition and results of operations.

Several states have enacted consumer privacy laws that impose compliance obligations with respect to personal information. For example, the CCPA was enacted in June 2018, and became effective for certain companies conducting business in California on January 1, 2020. The CCPA imposes significant requirements on covered companies with respect to consumer data privacy rights. In November 2020, voters in the State of California approved the CPRA, a ballot measure that amends and supplements the CCPA by, among other things, expanding both the scope of businesses covered by the CCPA and certain rights relating to personal information and its use, collection, and disclosure by covered businesses. See "Item 1. Business—Supervision and Regulation—Financial Privacy" for additional information on the CCPA and the CPRA. Compliance with the CCPA, the CPRA after it becomes effective and other state statutes or regulations designed to protect consumer personal data could potentially require us to implement substantive technology infrastructure and process changes. Non-compliance with the CCPA, the CPRA or similar laws and regulations could lead to substantial regulatory imposed fines and penalties, damages from private causes of action and/or reputational harm. We cannot predict whether any pending or future legislation will be adopted, or the substance and impact of any legislation on us. Future legislation could result in substantial costs to us and could have an adverse effect on our business, financial condition and results of operations.

Risks Related to Our Common Stock

The market price and trading volume of our common stock may be volatile, which could result in rapid and substantial losses for our shareholders.

The market price of our common stock may be highly volatile and could be subject to wide fluctuations. In addition, the trading volume of our common stock may fluctuate and cause significant price variations to occur. If the market price of our common stock declines significantly, shareholders may be unable to resell their shares of common stock at or above their purchase price, if at all. The market price of our common stock could fluctuate or decline significantly in the future. Some, but certainly not all, of the factors that could negatively affect the price of our common stock, or result in fluctuations in the price or trading volume of our common stock, include:

- Variations in our quarterly operating results or failure to meet the market's earnings expectations;
- Publication of news and research reports about us or the financial services industry in general;
- Departures of or additions to our key personnel;
- Adverse market reactions to any indebtedness we may incur or securities we may issue in the future;
- Actions by our shareholders;
- The operating and securities price performance of companies that investors consider to be comparable to us;
- Changes or proposed changes in laws or regulations affecting our business; and
- Actual or potential litigation and governmental investigations.

In addition, if the market for stocks in our industry, or the stock market in general, experiences a loss of investor confidence, including as a result of speculatory activity or the direct or indirect effects of COVID-19, the trading price of the common stock could decline for reasons unrelated to our business, results of operations or financial condition. If any of the foregoing occurs, it could cause our stock price to fall and may expose us to lawsuits that, even if unsuccessful, could be costly to defend and a distraction to management.

We may not continue to pay dividends on our common stock.

Holders of our common stock are only entitled to receive such dividends as our Board may declare out of funds legally available for payment. We are not required to pay dividends on our common stock and may reduce or eliminate dividends on our common stock at any time in the future. This could adversely affect the market price of our common stock. Dividends on our common stock are also subject to bank regulatory limits and possible approval requirements. In addition, we cannot declare or pay dividends on our common stock or redeem or repurchase our common stock for any period for which we have not declared and paid in full dividends on our preferred stock. Our capital planning and risk management is subject to supervisory review, and, as a result of that review, our discretion to pay dividends or determine the amount of any dividend could be limited. Our Board will continue to evaluate the payment of dividends based on our results of operations, financial condition, capital requirements, regulatory and contractual restrictions, our business strategy and other factors our Board deems relevant.

Future issuances of equity securities may adversely affect our stock price.

We have historically approached the capital markets opportunistically, making public offerings of our common stock and preferred stock, from time to time. To the extent practicable, we expect to continue this approach. In addition, we may issue debt securities convertible into or exercisable or exchangeable for our equity securities. In each case, we access the capital markets to raise additional capital, support growth or make acquisitions. Further, we issue stock options and other stock awards to retain and motivate our employees, executives and directors, and we expect to continue to do so. These issuances of securities may dilute the voting and economic interests of our existing shareholders. These issuances or the perception that such issuances may occur could also adversely affect the market price of our common stock.

Various factors could make a takeover attempt of us more difficult to achieve.

Certain provisions of our organizational documents, in addition to certain federal and state banking laws and regulations, could make it more difficult for a third-party to acquire us without the consent of our Board, even if doing so were perceived to be beneficial to our shareholders. These provisions also make it more difficult to remove our current Board or management or to appoint new directors, and also regulate the timing and content of shareholder proposals and nominations, and qualification for service on our Board. These provisions could effectively inhibit a non-negotiated merger or other business combination, which could adversely impact the value of our common stock.

Item 1B. Unresolved Staff Comments.

Not applicable.

Item 2. Properties.

Our management believes that our current and planned facilities are adequate for our current level of operations. Our principal executive offices are at 111 Pine Street, 2nd Floor, San Francisco, California 94111. As of December 31, 2020, we provided our services through 80 licensed deposit-taking offices primarily in the following areas: San Francisco, Palo Alto, Los Angeles, Santa Barbara, Newport Beach and San Diego, California; Portland, Oregon; Boston, Massachusetts; Palm Beach, Florida; Greenwich, Connecticut; New York, New York; and Jackson, Wyoming. We have 12 additional offices that offer exclusively lending, wealth management or trust services. All of our properties, except for two offices, are leased with terms expiring at dates ranging from 2021 to 2041, although most of the leases contain options to extend beyond these dates.

Item 3. Legal Proceedings.

There are no material pending legal proceedings to which we or any of our subsidiaries is a party or to which any of our property is subject. We are subject to ordinary routine litigation incidental to our business but we believe the results of such matters will not have a material effect on our business or financial condition.

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.

The Bank's common stock is listed on the New York Stock Exchange under the symbol "FRC."

As of February 15, 2021, there were fewer than 20 shareholders of record, although the Bank believes that its shares are held beneficially by approximately 200,000 shareholders.

Common Stock Dividends

The following table presents cash dividends per share of our common stock declared and paid by the Bank for the periods indicated:

	2020	2019
Quarter Ended:		
December 31	$ 0.20	$ 0.19
September 30	$ 0.20	$ 0.19
June 30	$ 0.20	$ 0.19
March 31	$ 0.19	$ 0.18

We paid a cash dividend for the fourth quarter of 2020 of $0.20 per share of common stock on February 11, 2021 to shareholders of record as of January 28, 2021.

For information on dividend restrictions, refer to "Item 1. Business—Supervision and Regulation—Restrictions on Dividends and Other Distributions" and "Item 1A. Risk Factors—Risks Related to Our Common Stock—We may not continue to pay dividends on our common stock."

Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information as of December 31, 2020 regarding common stock of First Republic Bank to be issued upon exercise of outstanding stock options or pursuant to (i) outstanding RSUs or PSUs, and (ii) common stock of First Republic Bank remaining available for issuance under the 2017 Omnibus Award Plan and the ESPP:

Plan Category	Number of Shares to Be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Shares Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in First Column)
Equity compensation plans approved by security holders	4,438,576 [1]	$28.78 [2]	3,971,736 [3]
Equity compensation plans not approved by security holders	—	—	—
Total	4,438,576	$28.78	3,971,736

(1) Includes 17,850 outstanding stock options, 3,395,319 outstanding RSUs and 1,025,407 outstanding PSUs.

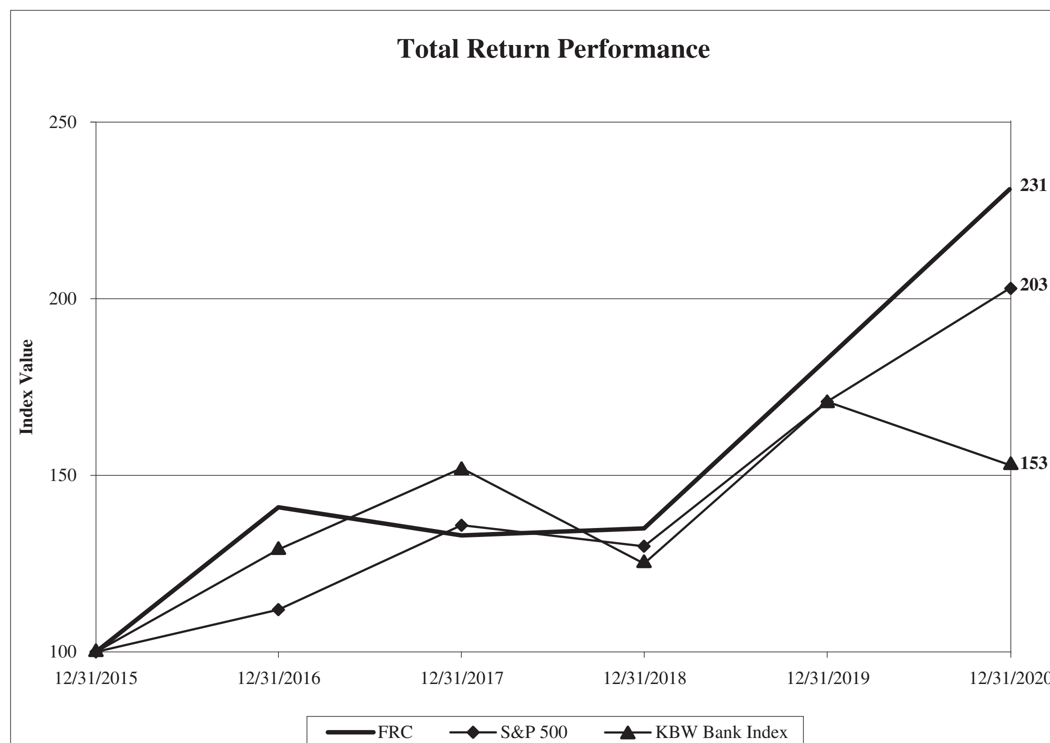
(2) Represents the weighted average exercise price of outstanding stock options. Does not include outstanding RSUs or PSUs, which do not have an exercise price.

(3) The number of shares remaining available for future issuance consists of 766,350 shares reserved for future purchase under the Bank's ESPP and 3,205,386 shares reserved for future awards under our stock award plan, the Bank's 2017 Omnibus Award Plan.

See Note 18 in "Item 8. Financial Statements and Supplementary Data" for information on our 2017 Omnibus Award Plan and ESPP.

Performance Graph

The following graph compares, for the period from December 31, 2015 through December 31, 2020, the cumulative shareholder return (change in the stock price plus reinvested dividends) and the total CAGR for the common stock of First Republic Bank with the cumulative return and the CAGR for the (i) Standard and Poor's 500 ("S&P 500") Index and (ii) KBW Bank Index. The performance reflected below assumes that $100 was invested in our common stock and each of the indices listed below at their closing prices on December 31, 2015. The performance of our common stock reflected below is not indicative of our future performance.



	Cumulative Return as of December 31,						5-year
	2015	2016	2017	2018	2019	2020	CAGR
First Republic Bank ("FRC")	$100	$141	$133	$135	$183	$231	18%
S&P 500 Index	$100	$112	$136	$130	$171	$203	15%
KBW Bank Index	$100	$129	$152	$125	$171	$153	9%

Recent Sales of Unregistered Securities

During the quarter ended December 31, 2020, we sold 58,238 shares of common stock to eligible employees under the ESPP for aggregate cash consideration of $6.4 million. These sales were exempt from registration under the Securities Act of 1933, as amended (the "Securities Act"), pursuant to Section (3)(a)(2) thereof because the sales involved securities issued by a bank.

During the quarter ended December 31, 2020, we granted 20,255 RSUs, net of forfeitures, that are time vesting. In addition, we granted 38,530 RSUs, net of forfeitures, that vest over time, provided certain performance criteria are achieved. These awards (both time-vesting and performance-vesting) were granted to certain employees, and had an aggregate grant date fair value of $7.6 million. We did not receive any cash consideration in connection with these grants. These grants were exempt from registration under the Securities Act, pursuant to Section (3)(a)(2) thereof because the grants involved securities issued by a bank.

In November 2020, we sold 1,725,000 shares of common stock as part of an underwritten public offering. The aggregate public offering price was $228.0 million, and the aggregate underwriting discount was $2.3 million. Net proceeds, after underwriting discounts, were $225.7 million ($130.85 per share), which we used for general corporate purposes. This transaction was also exempt from registration under the Securities Act, pursuant to Section (3)(a)(2) thereof because the transaction involved securities issued by a bank.

On February 9, 2021, we sold 29,900,000 depositary shares, each representing a 1/40th interest in a share of the Bank's 4.250% Noncumulative Perpetual Series L Preferred Stock for aggregate cash consideration of $747.5 million. The aggregate underwriting discount was $13.1 million. Net proceeds, after underwriting discounts, were $734.4 million, which we used for general corporate purposes, including a portion of the proceeds that have been allocated for the redemption of the Bank's 5.50% Noncumulative Perpetual Series G Preferred Stock on March 30, 2021. This transaction was exempt from registration under the Securities Act, pursuant to Section (3)(a) (2) thereof because the transaction involved securities issued by a bank.

Purchases of Equity Securities By the Issuer and Affiliated Purchasers

We did not repurchase any of our common stock during the fourth quarter of 2020 or at any time since our inception on July 1, 2010.

On October 9, 2020 (the "Redemption Date"), we redeemed all outstanding depositary shares, each representing a 1/40th interest in the Bank's 5.70% Noncumulative Perpetual Series F Preferred Stock ("Series F Preferred Stock"). In total, 4,000,000 depositary shares were redeemed at a redemption price of $25.00 per share, representing an aggregate amount of $100.0 million plus all accrued and unpaid dividends as of the Redemption Date. As of the Redemption Date, the Series F Preferred Stock was deemed no longer outstanding, and no further dividends will be declared on the Series F Preferred Stock.

Item 6. [*Reserved*]

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

Selected Financial Data

The following table presents our selected financial data and ratios at the dates or for the periods indicated:

($ in thousands, except per share amounts)	As of or for the Year Ended December 31, 2020	2019	2018
Selected Financial Data:			
Interest income	$3,852,673	$3,579,479	$3,031,606
Interest expense	590,121	815,312	530,498
Net interest income	3,262,552	2,764,167	2,501,108
Provision for credit losses [1]	157,091	61,690	76,092
Net interest income after provision for credit losses	3,105,461	2,702,477	2,425,016
Noninterest income	654,233	577,220	543,445
Noninterest expense	2,425,729	2,146,461	1,916,719
Net income	1,064,151	930,329	853,828
Dividends on preferred stock	58,725	49,070	57,725
Net income available to common shareholders	$1,005,426	$ 881,259	$ 796,103
Selected Ratios:			
Basic EPS	$ 5.85	$ 5.25	$ 4.89
Diluted EPS	$ 5.81	$ 5.20	$ 4.81
Net income to average assets	0.82%	0.88%	0.93%
Net income available to common shareholders to average common equity	10.59%	10.59%	10.90%
Net income available to common shareholders to average tangible common equity	10.86%	10.94%	11.34%
Average total equity to average total assets	8.31%	8.76%	9.08%
Dividends per common share	$ 0.79	$ 0.75	$ 0.71
Dividend payout ratio	13.6%	14.4%	14.8%
Book value per common share	$ 58.61	$ 51.63	$ 46.92
Tangible book value per common share	$ 57.30	$ 50.24	$ 45.26
Net interest margin	2.72%	2.83%	2.96%
Efficiency ratio [2], [3]	61.9%	64.2%	63.0%
Selected Asset Quality Ratios:			
Nonperforming assets to total assets	0.13%	0.12%	0.05%
Allowance for loan credit losses to total loans	0.56%	0.55%	0.58%
Allowance for loan credit losses to nonperforming loans	345%	346%	945%
Net loan charge-offs to average total loans	0.00%	0.01%	0.00%
Capital Ratios:			
Tier 1 leverage ratio	8.14%	8.39%	8.68%
CET1 ratio	9.67%	9.86%	10.38%
Tier 1 risk-based capital ratio	11.18%	11.21%	11.70%
Total risk-based capital ratio	12.55%	12.73%	13.43%

(1) Beginning in 2020, the provision for unfunded loan commitments is included in the provision for credit losses. For 2019 and 2018, the provision for unfunded loan commitments is included in other noninterest expense.

(2) Efficiency ratio is the ratio of noninterest expense to the sum of net interest income and noninterest income.

(3) The efficiency ratio reflects the impact of including the provision for unfunded loan commitments in the provision for credit losses for 2020. For 2019 and 2018, the provision for unfunded loan commitments is included in other noninterest expense.

Introduction

The discussion of our results of operations for the past three fiscal years that follows should be read in conjunction with our financial statements and related notes thereto presented elsewhere in our Annual Report on Form 10-K. For a discussion of the changes in our results of operations for the year ended December 31, 2019 compared to the year ended December 31, 2018, refer to Part II, "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2019. In addition to historical information, this discussion includes certain forward-looking statements regarding events and trends that may affect our future results. Refer to "Information Regarding Forward-Looking Statements" on page 5. For a more complete discussion of the factors that could affect our future results, see "Item 1A. Risk Factors."

We derive our income from the following principal areas: (1) net interest income, which is our largest source of income, and constitutes the difference between the interest income that we receive from interest-earning assets, such as loans and investment securities, and the interest expense that we pay on interest-bearing liabilities, such as deposits and borrowings; (2) fee income from wealth management activities, including investment management, trust, brokerage, insurance and foreign exchange; (3) fees for deposit services; (4) loan and related fees, including late charge income, loan-related processing fees, prepayment penalties on sold loans, and payoff fees; and (5) earnings from the sale and servicing of real estate secured loans. We currently operate our business through two business segments: Commercial Banking and Wealth Management.

Critical Accounting Policies and the Impact of Accounting Estimates

Our discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to ACL on loans and income taxes. We base these estimates on our historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. We consider the accounting policies below to be critical accounting policies because of the significance to our financial condition and results of operations and the difficult and subjective judgments, assumptions and estimates involved. Actual results may differ from these estimates under different assumptions or conditions.

Allowance for Credit Losses on Loans

Effective upon the adoption of ASC 326, the Bank estimates its ACL using quantitative models, expert judgment, qualitative factors and individual assessments. The Bank's estimate incorporates individual loan and/or property level characteristics, macroeconomic forecasts and historical loss rates to determine expected credit losses over the life of its loans. Loans with similar risk characteristics within each class are pooled when developing the allowance, and loans that do not share similar risk characteristics are individually assessed.

Quantitative PD/LGD models, which are used for residential real estate, income property, tax-exempt business, and other business loans, estimate the likelihood that a loan will default and measure the loss the Bank would incur if that loan defaults. Quantitative loss rate models, which are used for other secured and certain unsecured loans, use the relationship between historical losses, historical macroeconomic factors, and forward-looking macroeconomic information to determine an expected loss rate. Estimated loss amounts are based on the macroeconomic forecast scenario, contractual maturity dates, prepayment (or repayment) projections and, in most cases, loan specific risk characteristics over a reasonable and supportable period and a reversion period, after which the Bank reverts to its historical loss rate for the remaining life of the loan. The models also account for prepayments during the life of the loan.

For capital call lines of credit and the majority of unsecured loans, expected credit losses are determined by expert judgment. Expected loan losses are based on credit attributes specific to each loan type. For capital call lines of credit, such attributes used to estimate a lifetime loss rate include loan commitment size and expected line utilization. For unsecured loans, such attributes include external publicly available credit metrics for similar products.

The Bank also maintains an allowance based on qualitative factors not reflected in the quantitative models or expert judgment, but are likely to cause estimated credit losses. The qualitative factors are intended to address considerations including, but not limited to: the nature and volume of the Bank's loan portfolio changes, the existence and effects of credit concentrations, problem loan trends, lending policies and procedures, and other external factors, such as competition and the legal and regulatory environment. It is difficult to estimate how potential changes in these qualitative factors might affect estimated credit losses and current assessments may not reflect the potential future impact of changes in the nature and volume of the Bank's loan portfolio, changes in the effect of credit concentrations, changes in problem loan trends, changes in lending policies and procedures, and changes in other external factors.

Loans that do not share similar risk characteristics with the other loans in their class are not pooled, but are individually assessed based on the underlying value of the collateral, discounted expected future cash flows for TDRs, or based on each loan's individual risk characteristics.

If the credit quality of our loan portfolio declined significantly or if adverse changes in the forecasted economic conditions were to require an increase in our ACL, this could have a material adverse effect on our financial condition, results of operations and cash flows.

For a description of the related accounting policies effective January 1, 2020, see Note 1 and Note 4 in "Item 8. Financial Statements and Supplementary Data."

Income Taxes

The Bank estimates income tax expense based on amounts expected to be owed to various tax jurisdictions in which we operate and includes estimates for potential taxes, interest and penalties related to uncertain tax positions. On a quarterly basis, we evaluate tax accruals to determine if they are sufficient based on a probability of potential outcomes. Changes in the estimate of accrued taxes occur periodically due to changes in tax rates and interpretation of tax laws and regulations. See Note 21 in "Item 8. Financial Statements and Supplementary Data" for additional information.

DTAs and DTLs are recognized for the future tax consequences of temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. DTAs and DTLs are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

The Bank records a valuation allowance to reduce DTAs to the amount that is believed more likely than not to be realized. Management believes it is more likely than not that forecasted income, including income that may be generated as a result of certain tax planning strategies, sources of taxable income in carryback periods and tax effects of the DTLs, will be sufficient to fully recover the remaining DTAs. The Bank will continue to evaluate the realizability of the DTAs by assessing the need for a valuation allowance.

A tax position that meets the "more likely than not" recognition threshold is measured to determine the amount of benefits to recognize. The tax position is measured at the largest amount of benefit that is greater than 50% likely of being realized upon settlement. Interest and penalties are recognized as a component of income tax expense.

Current Accounting Developments

The following ASUs have been issued by the FASB, but were not yet effective as of December 31, 2020:

ASU 2020-04—Reference Rate Reform (ASC 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting and subsequent related ASU

The amendments were issued in March 2020 to address the expected discontinuation of LIBOR and other reference rates. Under the new guidance, entities can elect not to apply certain modification accounting requirements to contracts affected by the reference rate reform if 1) the contract references LIBOR or another reference rate expected to be discontinued and 2) the modified terms either directly replace or have the potential to replace the rate expected to be discontinued, and 3) any contemporaneous changes either change or have the potential to change the amount and timing of cash flows related to the replacement of the reference rate. Contract modifications meeting such criteria can generally be accounted for as a continuation of the existing contract and do not need to be remeasured.

The amendments also allow the entity to make a one-time election to sell, transfer or both sell and transfer debt securities classified as held-to-maturity that reference a rate affected by reference rate reform that were classified as held-to-maturity as of December 31, 2019.

The amendments may be adopted prospectively from the beginning of the first quarter 2020, or any date between March 12, 2020 and December 31, 2022. Once adopted, entities must apply the guidance prospectively to all eligible contract modifications.

The Bank has loans and debt securities that are indexed to reference rates such as LIBOR and COFI that are expected to be fully discontinued by June 2023 and January 2022, respectively. The Bank has ceased originating new loans indexed to these rates, and has established a working group to transition existing loans indexed to LIBOR and COFI. New loan originations are currently indexed to Prime or a 12-month average of 1-year CMT. The Bank is continuing to assess the final impact of this guidance on its loan and investment portfolios.

Key Factors Affecting Our Business and Financial Statements

COVID-19

COVID-19 has created significant volatility in the financial markets and impacted global and local economies. Various measures, including legislative and regulatory actions, have been taken to stabilize markets, promote economic growth, and assist those negatively impacted by the pandemic.

Our response to the pandemic includes: company-wide remote working arrangements, modified openings and hours in our preferred banking offices, social distancing and other measures to ensure the safety of our colleagues and clients; and community support through corporate contributions for those in need. In addition, we provided loan modifications to borrowers experiencing financial difficulties as a result of COVID-19. We have also provided loans to small businesses under the PPP. See "—Balance Sheet Analysis—Asset Quality—COVID-19 Loan Modifications" and "—Balance Sheet Analysis—Loan Portfolio—Business—PPP Loans" for additional information.

The Bank's provision for credit losses for the year ended December 31, 2020 also incorporates an economic outlook reflecting the impact of COVID-19. See "—Results of Operations—Years Ended December 31, 2020, 2019 and 2018—Provision for Credit Losses" for additional discussion of the Bank's provision for credit losses.

See also "Item 1A. Risk Factors" for additional discussion of risks related to COVID-19.

Interest Rates

Net interest income is our largest source of income and is the difference between the interest income on interest-earning assets (usually loans and investment securities) and the interest expense incurred in connection with interest-bearing liabilities (usually deposits and borrowings). The level of net interest income is primarily a function of the average balance of interest-earning assets, the average balance of interest-bearing liabilities and the spread between the contractual yield on such assets and the contractual cost of such liabilities. These factors are influenced by both the pricing and mix of interest-earning assets and interest-bearing liabilities which, in turn, are impacted by external factors such as the local economy, competition for loans and deposits, the monetary policy of the FOMC and market interest rates.

The rates paid on our deposits and short-term borrowings are largely based on short-term interest rates, the level of which is driven primarily by the FOMC's actions. However, the yields generated by our loans and securities are typically driven by short-term and longer-term interest rates, which are set by the market, or, at times by the FOMC's actions, and generally vary from day to day. The level of net interest income is therefore influenced by movements in such interest rates and the pace at which such movements occur. Declines in the yield curve or a decline in longer-term yields relative to short-term yields (a flatter yield curve) would have an adverse impact on our net interest margin and net interest income. The FOMC actions in response to COVID-19 are meaningfully influencing the interest-rate environment, which may reduce our net interest margin.

See "Item 1A. Risk Factors—Market and Interest Rate Risk—We are subject to interest rate risk and fluctuations in interest rates may negatively impact our net interest income" and "Item 7A. Quantitative and Qualitative Disclosures About Market Risk."

Regulatory and Supervisory Matters

Our results of operations are affected by the regulatory environment and requirements imposed on us by regulators. The extensive regulation and supervision that govern our business continues to evolve as the legal and regulatory framework changes and as our business grows. See "Item 1. Business—Supervision and Regulation."

We are subject to regulatory requirements specifying minimum amounts and types of capital that we must maintain. See "Item 1. Business—Supervision and Regulation—Capital Requirements" for additional information. As described under "Item 1. Business—Supervision and Regulation—Liquidity Rules," although we are not subject to certain liquidity ratio requirements, we nevertheless maintain on-balance sheet liquidity and a portfolio of HQLA. Changes in regulation or continued growth of the Bank may cause us to be subject to more stringent capital and/or liquidity requirements. The timing, nature and impact of any future changes to legal and regulatory requirements cannot be predicted.

Additionally, there have been a number of recent bank regulatory actions and legislative changes intended to help mitigate the adverse economic impact of COVID-19 on borrowers, including mandates requiring financial institutions to work constructively with borrowers affected by COVID-19, which include the CARES Act and CAA enacted by the U.S. Government and measures adopted by California and other states. See "Item 1. Business—Supervision and Regulation—COVID-19" for more information. Further actions taken by U.S. or other governmental authorities may result in regulatory uncertainty and may impose additional restrictions. At this time, we cannot predict how such regulatory or legislative responses to COVID-19 may impact our business.

Financial Highlights

Assets

- Our total assets were $142.5 billion at December 31, 2020 and $116.3 billion at December 31, 2019, a 23% increase. Asset growth was driven primarily by loan growth and higher cash balances.

Investments

- At December 31, 2020, total investment securities were $18.5 billion, a slight increase compared to $18.4 billion at December 31, 2019. Total investment securities represented 13% of total assets at December 31, 2020, compared to 16% of total assets at December 31, 2019. For additional discussion regarding our investment portfolio, see "—Balance Sheet Analysis—Investments."
- Our holdings of assets that are considered HQLA, including eligible cash, totaled $18.1 billion at December 31, 2020, compared to $14.5 billion at December 31, 2019. At December 31, 2020, HQLA represented 12.8% of average total assets for the fourth quarter of 2020. Effective in March 2020, the Federal Reserve reduced the reserve requirement ratios to zero percent, which eliminated the reserve requirement and resulted in an increase in HQLA eligible cash.

Loans

- At December 31, 2020, loans, excluding loans held for sale, were $112.6 billion, an increase of 24% compared to $90.8 billion at December 31, 2019. Loans increased as a result of growth primarily in single family, business and multifamily loans, as well as PPP loans. Beginning in April 2020, the Bank became a lender under the PPP. PPP loans totaled $1.8 billion as of December 31, 2020. For additional discussion regarding our loan portfolio, see "—Balance Sheet Analysis—Loan Portfolio."
- Average loan balances in 2020 were $100.5 billion, an increase of 22% compared to $82.2 billion in 2019.
- Our single family mortgage loans, including loans held for sale and HELOCs, were $63.8 billion and represented 57% of total loans at December 31, 2020, compared to $50.5 billion, or 56% of total loans at December 31, 2019.

- Loan origination volume was $52.7 billion in 2020, compared to $38.0 billion in 2019 and $31.4 billion in 2018, an increase of 39% in 2020 and an increase of 21% in 2019. Loan originations increased in 2020 primarily due to increases in single family and business lending. In addition, loan originations in 2020 included $2.0 billion of PPP loans.

Deposits

- Total deposits were $114.9 billion at December 31, 2020, an increase of 28% compared to $90.1 billion at December 31, 2019. Deposits increased as a result of expanding existing client relationships, referrals from existing clients, and new deposit clients. We continue to emphasize building banking relationships through checking and other transaction deposit accounts.
- Average deposit balances were $100.2 billion in 2020, an increase of 24% compared to $81.0 billion in 2019.
- At December 31, 2020, checking deposit balances were $76.9 billion, or 67% of total deposits, compared to $52.8 billion, or 59% of total deposits at December 31, 2019.
- The following table presents percentages of business and consumer deposits:

	December 31,		
Business and Consumer Deposits as a % of Total Deposits	**2020**	**2019**	**2018**
Business deposits	57%	56%	56%
Consumer deposits	43	44	44
Total	100%	100%	100%

Capital, Book Value per Common Share and Tangible Book Value per Common Share

- Our Tier 1 leverage ratio at December 31, 2020 was 8.14%. We continue to exceed regulatory guidelines for well-capitalized institutions. See "— Capital Resources" for further discussion of capital ratios and our capital requirements.
- Book value per common share was $58.61 at December 31, 2020, a 14% increase from December 31, 2019.
- Tangible book value per common share was $57.30 at December 31, 2020, a 14% increase from December 31, 2019.

Capital Markets Activity

- Our capital markets activity for 2020 included the following:
  - In January 2020, we sold 2,500,000 shares of common stock in an underwritten public offering. Net proceeds, after underwriting discounts and expenses, were $290.6 million.
  - In February 2020, we sold $500.0 million of 1.912% unsecured senior fixed-to-floating rate notes in an underwritten public offering. Net proceeds, after underwriting discounts and expenses, were $496.5 million. The senior notes will mature on February 12, 2024 unless previously redeemed, and are redeemable on February 12, 2023.

  - In September 2020, we sold 20,000,000 depositary shares, each representing a 1/40th interest in a share of our 4.125% Noncumulative Perpetual Series K Preferred Stock ("Series K Preferred Stock"), at a public offering price of $25.00 per depositary share in an underwritten public offering. We issued 500,000 shares of the Series K Preferred Stock in connection with the offering, each with a liquidation preference of $1,000. Net proceeds, after underwriting discounts and expenses, were $492.1 million.
  - In October 2020, we redeemed all outstanding shares of our 5.70% Noncumulative Perpetual Series F Preferred Stock, which totaled $100.0 million plus all accrued and unpaid dividends through the date of redemption.
  - In November 2020, we sold 1,725,000 shares of common stock in an underwritten public offering. Net proceeds, after underwriting discounts and estimated expenses, were approximately $225.4 million.
- In addition, our recent capital markets activity in 2021 included the following:
  - In February 2021, we sold 29,900,000 depositary shares, each representing a 1/40th interest in a share of our 4.250% Noncumulative Perpetual Series L Preferred Stock ("Series L Preferred Stock"), at a public offering price of $25.00 per depositary share in an underwritten public offering. We issued 747,500 shares of the Series L Preferred Stock in connection with the offering, each with a liquidation preference of $1,000. Net proceeds, after underwriting discounts and estimated expenses, were approximately $733.1 million. We used the net proceeds for general corporate purposes, a portion of which have been allocated for the redemption of all $150.0 million of the Bank's 5.50% Noncumulative Perpetual Series G Preferred Stock, which the Bank announced will take place on March 30, 2021.

Dividends

- Cash dividends paid in 2020 were $0.79 per share of common stock, compared to $0.75 in 2019 and $0.71 in 2018.
- On January 14, 2021, we declared a cash dividend for the fourth quarter of 2020 of $0.20 per share, which was paid on February 11, 2021 to shareholders of record as of January 28, 2021. Any future payment of dividends will be subject to ongoing regulatory oversight and board approval.

Wealth Management Assets

- Wealth management AUM and AUA increased 29% to $194.5 billion at December 31, 2020, from $151.0 billion at December 31, 2019. The increase in AUM and AUA was due to net client inflow and market appreciation. See "—Business Segments" for additional information.

Effective Tax Rate

- The Bank's effective tax rate for 2020, 2019 and 2018 was 20.2%, 17.9% and 18.8%, respectively. See "—Results of Operations—Years Ended December 31, 2020, 2019 and 2018—Provision for Income Taxes" for additional information.

Results of Operations—Years Ended December 31, 2020, 2019 and 2018

Overview

Net income was $1.1 billion in 2020, compared to $930.3 million in 2019 and $853.8 million in 2018, an increase of 14% in 2020 and an increase of 9% in 2019. The increase in 2020 was primarily due to higher net interest income and noninterest income. Diluted EPS were $5.81 in 2020, compared to $5.20 in 2019 and $4.81 in 2018, an increase of 12% in 2020 and an increase of 8% in 2019.

Net income for the Commercial Banking segment was $961.0 million in 2020, compared to $828.6 million in 2019 and $768.6 million in 2018, an increase of 16% in 2020 and an increase of 8% in 2019. The Wealth Management segment's net income was $103.1 million in 2020, compared to $101.8 million in 2019 and $85.3 million in 2018, a slight increase in 2020 and an increase of 19% in 2019. For a discussion of segment results, see "—Business Segments."

Net Interest Income and Net Interest Margin

Net interest income was $3.3 billion in 2020, compared to $2.8 billion in 2019 and $2.5 billion in 2018, an increase of 18% in 2020 and an increase of 11% in 2019. The increase in 2020 was primarily due to an increase in interest-earning assets, partially offset by a decrease in net interest margin.

Net interest margin represents net interest income on a fully taxable-equivalent basis divided by total average interest-earning assets. Net interest margin was 2.72% in 2020, compared to 2.83% in 2019 and 2.96% in 2018, a decrease of 11 bps in 2020 and a decrease of 13 bps in 2019. The decrease in 2020 was primarily due to average yields on interest-earning assets declining more than the offsetting decrease in average funding costs.

Fully taxable-equivalent net interest income was $3.4 billion in 2020, compared to $2.9 billion in 2019 and $2.6 billion in 2018, an increase of 18% in 2020 and an increase of 10% in 2019.

On an average basis, interest-earning assets and interest-bearing liabilities both increased 23% in 2020 and both increased 15% in 2019.

Yields/Rates (Fully Taxable-Equivalent Basis)

The following table presents the distribution of average assets, liabilities and equity, interest income and resulting yields on average interest-earning assets, and interest expense and rates on average interest-bearing liabilities on a fully taxable-equivalent basis.

	Year Ended December 31,								
	2020			2019 [3]			2018 [3]		
($ in thousands)	Average Balance	Interest Income/ Expense [1]	Yields/ Rates	Average Balance	Interest Income/ Expense [1]	Yields/ Rates	Average Balance	Interest Income/ Expense [1]	Yields/ Rates
Assets:									
Cash and cash equivalents	$ 4,018,429	$ 7,504	0.19%	$ 1,268,405	$ 23,835	1.88%	$ 1,325,174	$ 23,197	1.75%
Investment securities:									
U.S. Treasury and other U.S. Government agency securities	—	—	—%	—	—	—%	4,694	87	1.85%
U.S. Government-sponsored agency securities	193,246	4,957	2.56%	818,000	24,066	2.94%	1,072,391	31,761	2.96%
Agency residential and commercial MBS	6,348,004	159,520	2.51%	6,735,598	191,869	2.85%	7,370,501	203,505	2.76%
Other residential and commercial MBS	26,215	600	2.29%	4,450	170	3.83%	5,027	265	5.28%
Municipal securities	12,066,413	510,825	4.23%	9,218,509	409,127	4.44%	8,126,173	382,662	4.71%
Other investment securities [2]	52,204	1,447	2.77%	26,848	726	2.70%	19,617	480	2.44%
Total investment securities	18,686,082	677,349	3.62%	16,803,405	625,958	3.73%	16,598,403	618,760	3.73%
Loans: [3]									
Residential real estate [4]	55,885,085	1,676,247	3.00%	44,655,754	1,465,364	3.28%	37,184,625	1,185,240	3.19%
Multifamily [5]	13,092,607	489,402	3.68%	11,248,189	439,408	3.85%	9,550,067	354,648	3.66%
Commercial real estate	7,751,600	313,254	3.97%	7,088,827	301,831	4.20%	6,314,695	263,484	4.12%
Multifamily/commercial construction	2,678,312	121,949	4.48%	2,319,279	114,902	4.89%	2,044,257	98,925	4.77%
Business [6]	12,845,826	465,101	3.56%	11,302,160	503,782	4.40%	9,579,838	417,636	4.30%
PPP	1,432,501	32,903	2.26%	—	—	—%	—	—	—%
Other [7]	6,841,682	172,808	2.48%	5,559,309	187,536	3.33%	4,520,447	148,873	3.25%
Total loans	100,527,613	3,271,664	3.23%	82,173,518	3,012,823	3.64%	69,193,929	2,468,806	3.54%
FHLB stock [8]	442,338	23,889	5.40%	331,862	21,446	6.46%	293,359	25,187	8.59%
Total interest-earning assets	123,674,462	3,980,406	3.20%	100,577,190	3,684,062	3.64%	87,410,865	3,135,950	3.57%
Noninterest-earning assets:									
Noninterest-earning cash	438,893			347,065			347,639		
Goodwill and other intangibles	231,084			266,062			281,633		
Other assets	5,103,458			4,376,016			3,501,575		
Total noninterest-earning assets	5,773,435			4,989,143			4,130,847		
Total Assets	$129,447,897			$105,566,333			$91,541,712		
Liabilities and Equity:									
Deposits:									
Checking	$ 62,938,940	16,186	0.03%	$ 48,097,161	30,318	0.06%	$43,793,120	21,892	0.05%
Money market checking	14,847,613	55,699	0.38%	10,894,790	124,634	1.14%	8,858,355	68,597	0.77%
Money market savings and passbooks	10,658,955	32,209	0.30%	9,218,934	71,948	0.78%	8,915,947	39,693	0.45%
CDs	11,754,513	171,991	1.46%	12,769,459	273,657	2.14%	9,220,835	159,858	1.73%
Total deposits	100,200,021	276,085	0.28%	80,980,344	500,557	0.62%	70,788,257	290,040	0.41%
Borrowings:									
Short-term borrowings	310,392	4,704	1.52%	2,278,831	50,361	2.21%	793,606	15,277	1.93%
Long-term FHLB advances	14,330,041	250,031	1.74%	9,738,767	209,816	2.15%	9,039,658	165,081	1.83%
Senior notes [9]	938,185	22,873	2.44%	680,199	18,169	2.67%	895,584	23,709	2.65%
Subordinated notes [9]	778,099	36,428	4.68%	777,681	36,409	4.68%	777,280	36,391	4.68%
Total borrowings	16,356,717	314,036	1.92%	13,475,478	314,755	2.34%	11,506,128	240,458	2.09%
Total interest-bearing liabilities	116,556,738	590,121	0.51%	94,455,822	815,312	0.86%	82,294,385	530,498	0.64%
Noninterest-bearing liabilities	2,130,829			1,859,115			939,028		
Preferred equity	1,267,951			929,849			1,004,110		
Common equity	9,492,379			8,321,547			7,304,189		
Total Liabilities and Equity	$129,447,897			$105,566,333			$91,541,712		
Net interest spread [10]			2.69%			2.78%			2.92%
Net interest income (fully taxable-equivalent basis) and net interest margin [11]		$3,390,285	2.72%		$2,868,750	2.83%		$2,605,452	2.96%
Reconciliation of tax-equivalent net interest income to reported net interest income:									
Municipal securities tax-equivalent adjustment		(100,866)			(77,970)			(78,007)	
Business loans tax-equivalent adjustment		(26,867)			(26,613)			(26,337)	
Net interest income, as reported		$3,262,552			$2,764,167			$2,501,108	

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(1) Interest income is presented on a fully taxable-equivalent basis.
(2) Includes corporate debt securities, mutual funds and marketable equity securities.
(3) For comparability, the Bank has adjusted certain prior period loan amounts to conform to the current period presentation under CECL.
(4) Includes single family, HELOC, and single family construction loans. Also includes single family loans held for sale.
(5) Includes multifamily loans held for sale.
(6) Includes capital call lines of credit, tax-exempt and other business loans.
(7) Includes stock secured, other secured and unsecured loans.
(8) Yield for 2018 includes FHLB special dividends received of $4.8 million.
(9) Average balances include unamortized issuance discounts and costs. Interest expense includes amortization of issuance discounts and costs.
(10) Net interest spread represents the average yield on interest-earning assets less the average rate on interest-bearing liabilities.
(11) Net interest margin represents net interest income on a fully taxable-equivalent basis divided by total average interest-earning assets.

Interest Income

The following table presents interest income and fully taxable-equivalent interest income:

	Year Ended December 31,			% Change	
($ in thousands)	**2020**	**2019**	**2018**	**2020 vs. 2019**	**2019 vs. 2018**
Interest income:					
Loans	$3,244,796	$2,986,210	$2,442,469	9%	22%
Investments	576,484	547,988	540,753	5%	1%
Other [1]	23,889	21,446	25,187	11%	(15)%
Cash and cash equivalents	7,504	23,835	23,197	(69)%	3%
Total interest income	$3,852,673	$3,579,479	$3,031,606	8%	18%
Fully taxable-equivalent interest income:					
Loans	$3,271,664	$3,012,823	$2,468,806	9%	22%
Investments	$ 677,349	$ 625,958	$ 618,760	8%	1%

(1) Represents dividends on FHLB stock.

Total interest income consists of interest income on loans and investments, FHLB stock dividends, and interest income on cash and cash equivalents. Total interest income was $3.9 billion in 2020, compared to $3.6 billion in 2019 and $3.0 billion in 2018. The increase in 2020 was the result of an increase of 23% in average interest-earning assets, which were $123.7 billion compared to $100.6 billion in 2019, partially offset by a decrease in the average yield on interest-earning assets to 3.20% from 3.64% in 2019.

Loans

Interest income on loans was $3.2 billion in 2020, compared to $3.0 billion in 2019 and $2.4 billion in 2018. The increase in 2020 was due to continued loan growth, partially offset by a decrease in the average yield. Fully taxable-equivalent interest income on loans was $3.3 billion in 2020, compared to $3.0 billion in 2019 and $2.5 billion in 2018.

Average loan balances were $100.5 billion in 2020, compared to $82.2 billion in 2019 and $69.2 billion in 2018, an increase of 22% in 2020 and an increase of 19% in 2019. The average yield on loans was 3.23% in 2020, a decrease of 41 bps compared to 3.64% in 2019, and an increase of 10 bps compared to 3.54% in 2018.

Interest income on loans included prepayment penalty fees of $19.3 million, $13.3 million and $7.8 million in 2020, 2019 and 2018, respectively. The increase in 2020 was primarily due to higher prepayments on multifamily, single family and commercial real estate loans.

Our yield on loans is affected by a number of factors: market interest rates, the level of adjustable-rate loan indices, interest rate floors and caps, the repayment rate of loans, portfolio mix and the level of nonaccrual loans. Our weighted average contractual loan rate (on a fully taxable-equivalent basis) was 3.09% at December 31, 2020, compared to 3.50% at December 31, 2019. For ARM loans, the yield is also affected by the timing of changes in the loan rates, which generally lag market rate changes. At December 31, 2020, approximately 27% of our total loans were adjustable-rate or mature within one year, compared to 29% at December 31, 2019.

Investments

Interest income on investments was $576.5 million in 2020, compared to $548.0 million in 2019 and $540.8 million in 2018. The increase in 2020 was primarily due to higher average investment balances, partially offset by lower average yield. Fully taxable-equivalent interest income on investments was $677.3 million in 2020, compared to $626.0 million in 2019 and $618.8 million in 2018.

Average investment balances were $18.7 billion in 2020, compared to $16.8 billion in 2019 and $16.6 billion in 2018, an increase of 11% in 2020 and a slight increase in 2019. The increase in 2020 was primarily due to investment purchases, partially offset by payments. The average yield on investment securities was 3.62% in 2020, compared to 3.73% in both 2019 and 2018. The yield decline in 2020 was the result of lower yields on municipal securities and agency residential and commercial MBS.

FHLB Stock

Dividends on FHLB stock were $23.9 million in 2020, compared to $21.4 million in 2019 and $25.2 million in 2018. The increase in dividend income in 2020 was primarily driven by increases in average FHLB stock balances, partially offset by lower average yield. Average FHLB stock balances were $442.3 million in 2020, compared to $331.9 million in 2019 and $293.4 million in 2018, an increase of 33% in 2020 and an increase of 13% in 2019. The average yield on FHLB stock was 5.40% in 2020, compared to 6.46% in 2019 and 8.59% in 2018.

Interest Expense

The following table presents interest expense:

	Year Ended December 31,			% Change	
($ in thousands)	**2020**	**2019**	**2018**	**2020 vs. 2019**	**2019 vs. 2018**
Interest expense:					
Deposits:					
Checking	$ 16,186	$ 30,318	$ 21,892	(47)%	38%
Money market checking	55,699	124,634	68,597	(55)%	82%
Money market savings and passbooks	32,209	71,948	39,693	(55)%	81%
CDs	171,991	273,657	159,858	(37)%	71%
Total interest expense on deposits	276,085	500,557	290,040	(45)%	73%
Borrowings:					
Short-term borrowings	4,704	50,361	15,277	(91)%	230%
Long-term FHLB advances	250,031	209,816	165,081	19%	27%
Senior notes	22,873	18,169	23,709	26%	(23)%
Subordinated notes	36,428	36,409	36,391	0%	0%
Total interest expense on borrowings	314,036	314,755	240,458	0%	31%
Total interest expense	$590,121	$815,312	$530,498	(28)%	54%

Total interest expense consists of interest expense on deposits, federal funds purchased, FHLB advances, senior notes, subordinated notes and other borrowings. Total interest expense was $590.1 million in 2020, compared to $815.3 million in 2019 and $530.5 million in 2018. The decrease in 2020 was the result of a decline in the average cost of interest-bearing liabilities to 0.51% in 2020 from 0.86% in 2019, partially offset by a 23% increase in average interest-bearing liabilities, which were $116.6 billion in 2020, compared to $94.5 billion in 2019.

Deposits

Interest expense on deposits was $276.1 million in 2020, compared to $500.6 million in 2019 and $290.0 million in 2018. The decrease in 2020 was driven by a decrease in rates paid on deposits due to a decrease in market interest rates, partially offset by growth in deposit balances. The average interest rate paid on deposits was 0.28% in 2020, 0.62% in 2019 and 0.41% in 2018. The decrease in rates paid in 2020 was primarily due to the decrease in the average federal funds rate, which was 0.54% in 2020 and 2.28% in 2019. In addition, the decrease in rates paid was due to lower rates on new and renewed CDs given lower market rates of interest.

Interest expense on checking deposits was $16.2 million in 2020, compared to $30.3 million in 2019 and $21.9 million in 2018. The decrease in 2020 was due to a decrease in rates paid, partially offset by an increase in average balances. Average checking deposit balances were $62.9 billion in 2020, compared to $48.1 billion in 2019 and $43.8 billion in 2018, an increase of 31% in 2020 and an increase of 10% in 2019. The average interest rate paid on checking deposits was 0.03% in 2020, compared to 0.06% in 2019 and 0.05% in 2018.

Interest expense on money market checking deposits was $55.7 million in 2020, compared to $124.6 million in 2019 and $68.6 million in 2018. The decrease in 2020 was due to a decrease in rates paid, partially offset by an increase in average balances. The increase in 2019 was due to increases in both average balances and rates paid. Average money market checking deposits balances were $14.8 billion in 2020, compared to $10.9 billion in 2019 and $8.9 billion in 2018, an increase of 36% in 2019 and an increase of 23% in 2018. The average interest rate paid on money market checking deposits was 0.38% in 2020, compared to 1.14% in 2019 and 0.77% in 2018.

Interest expense on money market savings and passbooks deposits was $32.2 million in 2020, compared to $71.9 million in 2019 and $39.7 million in 2018. The decrease in 2020 was due to a decrease in rates paid, partially offset by an increase in average balances. The increase in 2019 was due to increases in both average balances and rates paid. Average money market savings and passbooks deposit balances were $10.7 billion in 2020, compared to $9.2 billion in 2019 and $8.9 billion in 2018, an increase of 16% in 2019 and an increase of 3% in 2018. The average interest rate paid on money market savings and passbooks deposits was 0.30% in 2020, compared to 0.78% in 2019 and 0.45% in 2018.

Interest expense on CDs was $172.0 million in 2020, compared to $273.7 million in 2019 and $159.9 million in 2018. The decrease in 2020 was due to a decrease in rates paid and a decrease in average balances. Average CD balances were $11.8 billion in 2020, compared to $12.8 billion in 2019 and $9.2 billion in 2018, a decrease of 8% in 2020 and an increase of 38% in 2019. The average interest rate paid on CDs was 1.46% in 2020, compared to 2.14% in 2019 and 1.73% in 2018.

Average deposit balances were $100.2 billion in 2020, compared to $81.0 billion in 2019 and $70.8 billion in 2018, an increase of 24% in 2020 and an increase of 14% in 2019. The following table presents average deposit balances by deposit type as a percentage of average total deposits:

Average Deposits by Type as a % of Average Total Deposits	Year Ended December 31, 2020	2019	2018
Checking	63%	59%	62%
Money market checking	15%	14%	12%
Money market savings and passbooks	10%	11%	13%
CDs	12%	16%	13%

At December 31, 2020, our total deposits were $114.9 billion, compared to $90.1 billion at December 31, 2019, an increase of 28%, and the weighted average contractual rate paid on total deposits was 0.10% and 0.58%, respectively. We will continue to focus on growth in our core deposit base to fund a significant percentage of our future asset growth, although there can be no assurance we will be successful. If we are not successful, we may need to use other sources of funding, such as federal funds purchased, FHLB advances, unsecured term senior notes or unsecured term subordinated notes, which are generally higher in cost.

Borrowings

Interest expense on borrowings was $314.0 million in 2020, compared to $314.8 million in 2019, and $240.5 million in 2018.

Short-term borrowings, which include federal funds purchased and short-term FHLB advances, have an original maturity of one year or less. We had no short-term borrowings at December 31, 2020, compared to $800.0 million at December 31, 2019. Interest expense on short-term borrowings was $4.7 million in 2020, compared to $50.4 million in 2019 and $15.3 million in 2018. The decrease in 2020 was due to a lower average balance, as well as a decrease in the average cost of federal funds purchased and short-term FHLB advances. Average short-term borrowings in 2020 were $310.4 million, compared to $2.3 billion in 2019 and $793.6 million in 2018. The average cost of short-term borrowings was 1.52% in 2020, compared to 2.21% in 2019 and 1.93% in 2018. The decrease in the average cost was impacted by the decrease in the average federal funds rate, which was 0.54% in 2020 and 2.28% in 2019.

At December 31, 2020, long-term FHLB advances outstanding were $11.8 billion, compared to $12.2 billion at December 31, 2019. Interest expense on long-term FHLB advances was $250.0 million in 2020, compared to $209.8 million in 2019 and $165.1 million in 2018. The increase in 2020 was due to higher average balances, partially offset by a decrease in the average cost of long-term FHLB advances. Average long-term FHLB advances in 2020 were $14.3 billion, compared to $9.7 billion in 2019 and $9.0 billion in 2018, an increase of 47% in 2020 and an increase of 8% in 2019. Average long-term FHLB advances as a proportion of total average interest-bearing liabilities were 12% in 2020, 10% in 2019 and 11% in 2018. The average cost of long-term FHLB advances was 1.74%, 2.15% and 1.83% in 2020, 2019 and 2018, respectively. The decrease in 2020 was the result of lower interest rates on new advances, compared to the interest rates on matured borrowings.

At December 31, 2020, the carrying value of unsecured senior notes was $996.1 million, compared to $497.7 million at December 31, 2019. Interest expense on our fixed-rate senior notes was $22.9 million in 2020, $18.2 million in 2019 and $23.7 million in 2018, and includes contractual interest, increased by amortization of issuance discounts and offering costs. The 2.375% fixed-rate senior notes issued in June 2014 of $400.0 million were repaid at their maturity date in the second quarter of 2019. During the first quarter of 2020, the Bank completed an underwritten public offering of $500.0 million of 1.912% unsecured senior fixed-to-floating rate notes due 2024.

At December 31, 2020, the carrying value of unsecured subordinated notes totaled $778.3 million, compared to $777.9 million at December 31, 2019. Interest expense on our fixed-rate subordinated notes was $36.4 million in 2020, 2019 and 2018, and includes contractual interest, increased by amortization of issuance discounts and offering costs.

Rate and Volume Variances (Fully Taxable-Equivalent Basis)

Net interest income is affected by changes in both volume and interest rates. Volume changes are caused by increases or decreases during the year in the level of average interest-earning assets and average interest-bearing liabilities. Rate changes result from increases or decreases in the yields earned on assets or the rates paid on liabilities. The following table presents for each of the last two years a summary of the changes in interest income and interest expense resulting from changes in the volume of average asset and liability balances and changes in the average yields or rates compared to the preceding year, on a fully taxable-equivalent basis. Unallocated changes in interest income or interest expense due to both volume and rate changes (such as for changes in investment or borrowing types) have been allocated proportionally between the volume and the rate variances. For comparability, certain prior period loan amounts have been adjusted to conform to the current period presentation under CECL.

	2020 vs. 2019			2019 vs. 2018		
($ in thousands)	Volume	Rate	Total	Volume	Rate	Total
Increase (decrease) in interest income:						
Cash and cash equivalents	$ 48,409	$ (64,740)	$ (16,331)	$ (1,023)	$ 1,661	$ 638
Investment securities:						
U.S. Treasury and other U.S. Government agency securities	—	—	—	(87)	—	(87)
U.S. Government-sponsored agency securities	(16,127)	(2,982)	(19,109)	(7,485)	(210)	(7,695)
Agency residential and commercial MBS	(10,633)	(21,716)	(32,349)	(17,949)	6,313	(11,636)
Other residential and commercial MBS	648	(218)	430	(28)	(67)	(95)
Municipal securities	121,555	(19,857)	101,698	49,485	(23,020)	26,465
Other investment securities	702	19	721	190	56	246
Loans:						
Residential real estate	346,913	(136,030)	210,883	244,136	35,988	280,124
Multifamily	70,134	(20,140)	49,994	65,507	19,253	84,760
Commercial real estate	27,539	(16,116)	11,423	32,853	5,494	38,347
Multifamily/commercial construction	16,925	(9,878)	7,047	13,570	2,407	15,977
Business	63,742	(102,423)	(38,681)	76,541	9,605	86,146
PPP	32,903	—	32,903	—	—	—
Other	38,914	(53,642)	(14,728)	34,942	3,721	38,663
FHLB stock	6,483	(4,040)	2,443	3,092	(6,833)	(3,741)
Total increase (decrease)	748,107	(451,763)	296,344	493,744	54,368	548,112
Increase (decrease) in interest expense:						
Deposits:						
Checking	8,581	(22,713)	(14,132)	2,321	6,105	8,426
Money market checking	41,726	(110,661)	(68,935)	18,528	37,509	56,037
Money market savings and passbooks	10,696	(50,435)	(39,739)	1,422	30,833	32,255
CDs	(20,670)	(80,996)	(101,666)	70,131	43,668	113,799
Short-term borrowings	(30,752)	(14,905)	(45,657)	32,124	2,960	35,084
Long-term FHLB advances	88,062	(47,847)	40,215	13,502	31,233	44,735
Senior notes	6,445	(1,741)	4,704	(5,752)	212	(5,540)
Subordinated notes	19	—	19	18	—	18
Total increase (decrease)	104,107	(329,298)	(225,191)	132,294	152,520	284,814
Increase (decrease) in net interest income	$644,000	$(122,465)	$ 521,535	$361,450	$ (98,152)	$263,298

Provision for Credit Losses

The following table presents information related to the provision for credit losses:

($ in thousands)	Year Ended December 31, 2020	2019	2018	% Change 2020 vs. 2019	2019 vs. 2018
Provision for credit losses:					
Debt securities held-to-maturity	$ 2,233	$ —	$ —	NM	NM
Loans	142,977	61,690	76,092	132%	(19)%
Unfunded loan commitments [1]	11,881	—	—	NM	NM
Total	$157,091	$61,690	$76,092	155%	(19)%

Note: Variances that are not meaningful (NM) are not presented in the table above.

(1) The provision for unfunded loan commitments is included in the provision for credit losses for 2020. For 2019 and 2018, the provision for unfunded loan commitments is included in other noninterest expense, which is not presented in this table.

Beginning in the first quarter of 2020, the Bank adopted the CECL methodology under ASC 326, in which the ACL reflects expected credit losses over the life of loans and held-to-maturity debt securities, and incorporates macroeconomic forecasts as well as historical loss rates. Additionally, the level of provision for unfunded loan commitments is determined based on the dollar amounts expected to fund, and the loss rates that are calculated using the same assumptions as the associated funded balance. Prior to adoption of ASC 326, the level of provision for credit losses on loans was based on an incurred loss methodology, which did not incorporate lifetime expected losses or macroeconomic forecasts. The provision for credit losses was $157.1 million in 2020, compared to $61.7 million in 2019 and $76.1 million in 2018. The increase in 2020 resulted primarily from loan growth and the implementation of the CECL methodology beginning in 2020, which incorporates an economic outlook reflecting the impact of COVID-19.

The macroeconomic forecasts used in determining the ACL, under different conditions or using different assumptions or estimates, could result in significantly different changes in the ACL. It is difficult to estimate how potential changes in specific factors might affect the overall ACL and current results may not reflect the potential future impact of macroeconomic forecast changes.

Noninterest Income

The following table presents noninterest income:

($ in thousands)	Year Ended December 31,			% Change	
	2020	2019	2018	2020 vs. 2019	2019 vs. 2018
Noninterest income:					
Investment management fees	$395,304	$359,332	$341,539	10%	5%
Brokerage and investment fees	50,517	41,035	31,867	23%	29%
Insurance fees	11,655	12,708	10,090	(8)%	26%
Trust fees	19,484	16,549	14,633	18%	13%
Foreign exchange fee income	49,552	41,026	35,606	21%	15%
Deposit fees	23,713	26,071	24,974	(9)%	4%
Loan and related fees	27,908	19,819	15,713	41%	26%
Loan servicing fees, net	(1,401)	11,348	13,302	NM	(15)%
Gain on sale of loans	16,987	535	5,616	NM	(90)%
Gain (loss) on investment securities	3,840	(3,436)	5,202	NM	NM
Income from investments in life insurance	53,503	45,570	40,670	17%	12%
Other income	3,171	6,663	4,233	(52)%	57%
Total noninterest income	$654,233	$577,220	$543,445	13%	6%

Note: Variances that are not meaningful (NM) are not presented in the table above.

Noninterest income in 2020 was $654.2 million, compared to $577.2 million in 2019 and $543.4 million in 2018. The increase in 2020 was primarily driven by higher wealth management fees and an elevated gain on sale of loans, partially offset by lower loan servicing fees.

Wealth Management Fees

Wealth management fees consist of fees earned for the management or administration of clients' assets, as well as commissions and trading revenues generated from the execution of client-related brokerage and investment activities and fees earned for assisting clients with financial planning or foreign exchange transactions. For additional information on the AUM and AUA for the entities comprising the Wealth Management segment, see "—Business Segments."

Investment management fees. We provide traditional full-service portfolio management and customized client portfolios through FRIM. We earn fee income from the management of equity securities, fixed income securities, balanced portfolios, and alternative investments for our clients. In addition, we employ experienced wealth managers to work with our relationship managers to generate new AUM using an open architecture platform. Investment management fees were $395.3 million in 2020, $359.3 million in 2019 and $341.5 million in 2018. The increase in investment management fees in 2020 was primarily driven by growth in AUM. FRIM's AUM were $83.6 billion at December 31, 2020, compared to $66.0 billion at December 31, 2019, an increase of 27% due to net client inflow and market appreciation. The addition of client assets was the result of growth in investment management services to Bank clients, acquiring new clients, the successful marketing efforts of existing wealth managers and the hiring of experienced wealth managers who brought their clients with them. Investment management fees vary by client with the amount of assets managed and the type of investment management chosen by the client. Generally, these wealth managers earn higher fees for managing equity securities than for managing a fixed income portfolio. The future level of these fees depends on the level and mix of AUM, type of investment management chosen by the client, market conditions and our ability to attract new clients.

Brokerage and investment fees. We perform brokerage and investment activities for clients through FRSC. We employ wealth managers to offer brokerage services for equity securities, mutual funds, exchange-traded funds, unit investment trusts, alternative investments, hedging strategies, treasury securities, municipal bonds, other fixed income securities, money market mutual funds and other shorter-term liquid investments at the request of clients or their financial advisors. Brokerage and investment fees were $50.5 million in 2020, $41.0 million in 2019 and $31.9 million in 2018. The increase in 2020 was primarily due to market volatility in the first half of 2020, which resulted in higher transaction volume. Such fees vary based on the volume and type of transaction activity, conditions in the securities markets and our ability to attract new clients. In addition, at December 31, 2020, we held $97.1 billion of client assets in brokerage accounts through FRSC and in third-party money market mutual funds, compared to $73.1 billion at December 31, 2019, an increase of 33%, due to net client inflow and market appreciation.

Insurance fees. We earn revenue from selling life insurance policies and annuity contracts to our clients through FRSC and FRIM. Insurance fees consist of initial commissions when a policy is sold and subsequent commissions each year that a policy is renewed. Insurance fees were $11.7 million in 2020, $12.7 million in 2019 and $10.1 million in 2018. Such fees vary based on the level of sales of insurance and annuity products and our ability to attract new clients. The Bank does not retain any underwriting risk from the sale of insurance products.

Trust fees. The Trust Company specializes in personal trusts and custody services and operates in California, Oregon, Washington, New York, Massachusetts, Delaware, Florida, Wyoming and Connecticut. The Trust Company draws new trust clients from our Preferred Banking and wealth management client base, as well as from outside of our organization. Trust fees were $19.5 million in 2020, $16.5 million in 2019 and $14.6 million in 2018. At December 31, 2020, assets under custody or administration were $13.8 billion, compared to $11.9 billion at December 31, 2019, an increase of 16%. Trust fees are primarily based on the relationship size, client circumstances and requirements, and mix of assets under custody or administration and will vary in the future based on these factors.

Foreign exchange fee income. Foreign exchange fee income represents fees we earn from transacting foreign exchange business on behalf of our clients. We earned foreign exchange income of $49.6 million in 2020, compared to $41.0 million in 2019 and $35.6 million in 2018. The increase in foreign exchange fees in 2020 was primarily driven by higher transaction volume from both existing and new clients.

We execute foreign exchange trades with clients and then offset those trades with other financial institution counterparties, such as major investment banks or large commercial banks. We do not retain significant foreign exchange risk associated with these transactions, as the trades with the client and the financial institution counterparty are matched on our books. We do retain credit risk, both to the client and the counterparty institution, which is evaluated and managed by us in the normal course of our operations. In addition, we have foreign exchange contracts associated with client deposits denominated in various foreign currencies.

Other Noninterest Income

Deposit fees. We earn fees from our clients for deposit services. Deposit fees were $23.7 million in 2020, compared to $26.1 million in 2019 and $25.0 million in 2018. The decrease in deposit fees in 2020 was primarily driven by declines in ATM fees and interchange fees, as well as fee waivers provided as a result of the pandemic.

Loan and related fees. Loan and related fee income was $27.9 million in 2020, compared to $19.8 million in 2019 and $15.7 million in 2018. Loan and related fee income includes: late charge income, which generally increases with growth in the average loan and servicing portfolios; loan related processing or commitment fees that vary with market conditions and origination volumes; prepayment penalties on sold loans; and payoff fees that vary with loan repayment activity and market conditions such as the general level of longer-term interest rates.

Loan servicing fees, net. Net loan servicing fees are derived from the amount of loans serviced, the fees earned from servicing such loans (expressed as a percent of loans serviced that are retained), the amortization rate of MSRs and the amount of provisions for, or reversal of, the MSR valuation allowance. The following table presents net loan servicing fees:

	Year Ended December 31,		
($ in thousands)	**2020**	**2019**	**2018**
Contractually specified servicing fees	$ 20,631	$ 26,563	$ 30,087
MSR amortization expense	(13,196)	(13,352)	(16,785)
MSR net provision for valuation allowance	(8,836)	(1,863)	—
Loan servicing fees, net	$ (1,401)	$ 11,348	$ 13,302

Net loan servicing fees were $(1.4) million in 2020, compared to $11.3 million in 2019 and $13.3 million in 2018. The decrease in 2020 was primarily due to the decline in the size of the servicing portfolio and the higher net provision for valuation allowance established on MSRs due to accelerated repayments of loans in the servicing portfolio. The average servicing portfolio in 2020 was $8.4 billion, a decrease of 22% compared to $10.8 billion in 2019, and a decrease of 11% compared to $12.0 billion in 2018.

Contractual servicing fees were $20.6 million in 2020, compared to $26.6 million in 2019 and $30.1 million in 2018, a decrease of 22% in 2020 and a decrease of 12% in 2019. The amount of contractual servicing fees depends upon the size of the servicing portfolio, the terms of the loans at origination, the interest rate environment and conditions in the secondary market when the loans are sold, as well as the rate of loan payoffs. Weighted average servicing fees collected as a percentage of loans serviced were 0.25% for 2020, 2019 and 2018.

The amount of net loan servicing fees that we record is affected by the repayment of loans in the servicing portfolio. In 2020, the overall repayment speed experienced on loans serviced was 31%, compared to 21% in 2019 and 14% in 2018. If actual repayments of loans serviced are lower than our estimate of future repayments, we could reduce the amortization of MSRs and release a valuation allowance, if any, which would increase our expected level of future earnings. If actual repayments on loans serviced are higher than our estimates of future repayments, we may be required to increase the amortization of MSRs and reduce the carrying value of MSRs through the establishment of a valuation allowance, thereby decreasing our expected level of current and future earnings.

Gain on sale of loans. The net gain on sales of loans fluctuates with the amount and type of loans sold. The amount of loans that we sell depends upon conditions in the mortgage origination, loan securitization and secondary loan sales markets, the interest rate environment, as well as our pricing and ALM strategy. Gain on sale of loans also includes adjustments made to loans held for sale from any adjustments to the cost of loans based on current market prices. The following table presents loan sales activity and gain on sale of loans:

	Year Ended December 31,		
($ in thousands)	**2020**	**2019**	**2018**
Gain on sale of loans [1]	$ 16,987	$ 535	$ 5,616
Loans sold	$1,238,299	$289,047	$1,239,130
Gain on sale of loans as a percentage of loans sold [1]	1.37%	0.19%	0.45%

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(1) The gain for the year ended December 31, 2020 included $10.3 million related to realized discounts on previously purchased loans when these loans were sold. Excluding these discounts of $10.3 million, the gain as a percentage of loans sold was 0.54% for the year ended December 31, 2020.

The gain on sale of loans in 2020 included $10.3 million related to realized discounts on previously purchased loans when these loans were sold. In addition, the increase in gain on sale of loans in 2020 was the result of a higher volume of loans sold and higher margins, partially offset by costs associated with our first sponsored securitization since 2002.

Gain (loss) on investment securities. The gain (loss) on investment securities consists of activity from sales of investment securities and includes changes in fair value of the Bank's marketable equity securities. The gain (loss) varies based on the amount and type of investments sold and market conditions. The following table presents gain (loss) on investment securities:

	Year Ended December 31,		
($ in thousands)	2020	2019	2018
Net gain (loss) on sales of investment securities	$2,629	$(4,303)	$ 6,800
Net change in fair value of equity securities	1,211	867	(1,598)
Gain (loss) on investment securities	$3,840	$(3,436)	$ 5,202

Income from investments in life insurance. Income from investments in life insurance was $53.5 million in 2020, $45.6 million in 2019 and $40.7 million in 2018. Income from investments in life insurance in 2020 included a $5.3 million gain from life insurance proceeds. The book value of this portfolio of tax-exempt investments was $2.1 billion and $1.4 billion at December 31, 2020 and 2019, respectively. The increase was primarily due to purchases of investments in life insurance.

Noninterest Expense

The following table presents noninterest expense:

	Year Ended December 31,			% Change	
($ in thousands)	2020	2019	2018	2020 vs. 2019	2019 vs. 2018
Noninterest expense:					
Salaries and employee benefits	$1,494,400	$1,245,526	$1,109,228	20%	12%
Information systems	298,632	273,337	241,752	9%	13%
Occupancy	220,752	192,678	152,258	15%	27%
Professional fees	66,494	68,099	60,058	(2)%	13%
Advertising and marketing	43,135	65,961	60,463	(35)%	9%
FDIC assessments	44,113	38,759	58,122	14%	(33)%
Other expenses	258,203	262,101	234,838	(1)%	12%
Total noninterest expense	$2,425,729	$2,146,461	$1,916,719	13%	12%

Noninterest expense was $2.4 billion in 2020, compared to $2.1 billion in 2019 and $1.9 billion in 2018. The increase in 2020 was primarily due to higher staffing levels and resultant higher salaries and benefits, as well as increased information systems costs from the continued investments in the expansion of the franchise, partially offset by lower travel and entertainment, as well as advertising and marketing costs as a result of the pandemic.

Noninterest expense was reduced by certain general and administrative costs, primarily compensation costs directly related to loan originations, which have been capitalized in accordance with ASC 310-20, "Nonrefundable Fees and Other Costs." We capitalized loan origination costs of $239.2 million in 2020, compared to $176.7 million in 2019 and $128.5 million in 2018. The amount of capitalized costs varies directly with the volume of loan originations and the costs incurred to make new loans. The capitalized costs are reported as net deferred loan fees and costs on our balance sheet and are amortized to interest income over the contractual life of the loans.

Our efficiency ratio, the ratio of noninterest expense to the sum of net interest income and noninterest income, was 61.9% in 2020, compared to 64.2% in 2019 and 63.0% in 2018. The decrease in 2020 was primarily due to lower travel and entertainment, as well as advertising and marketing costs as a result of the pandemic. The decrease in the efficiency ratio in 2020 was also driven by an elevated gain on sale of loans, which included $10.3 million related to realized discounts on previously purchased loans when these loans were sold, and income from investments in life insurance, which included a $5.3 million gain from life insurance proceeds. In addition, the efficiency ratio reflects the impact of including the provision for unfunded loan commitments in the provision for credit losses for 2020. For 2019 and 2018, the provision for unfunded loan commitments is included in other noninterest expense.

Salaries and employee benefits. Salaries and employee benefits is the largest component of noninterest expense and includes the cost of salaries, incentive compensation, benefit plans, health insurance and payroll taxes, which have collectively increased as we hired additional personnel to support our growth and our enhanced regulatory infrastructure. Salaries and employee benefit expenses were $1.5 billion in 2020, compared to $1.2 billion in 2019 and $1.1 billion in 2018. The increase in 2020 was primarily the result of the addition of new personnel to support higher levels of lending, deposit growth, expansion of wealth management and higher incentive compensation related to the continued expansion of the franchise, as well as in response to the pandemic. At December 31, 2020, we had 5,483 full-time equivalent employees, including temporary employees and independent contractors, compared to 4,812 full-time equivalent employees at December 31, 2019, a 14% increase.

Information systems. These expenses include payments to vendors that provide software and services on an outsourced basis, costs related to supporting and developing digital platforms and the costs associated with telecommunications for ATMs, office activities and internal networks. Expenses for information systems were $298.6 million in 2020, $273.3 million in 2019 and $241.8 million in 2018. The increase in information systems costs in 2020 was primarily due to continued technology initiatives to upgrade our systems, including our mobile and online banking platform, enhance the client experience and support our growth, as well as increased costs from the Bank's business continuity response to the pandemic.

Occupancy. Occupancy costs were $220.8 million in 2020, $192.7 million in 2019 and $152.3 million in 2018. The increase in occupancy costs in 2020 was primarily due to expanding our office space in existing markets for new employees, increased rental costs in certain locations and rental costs for additional banking office locations. We expect the level of occupancy costs to vary with the number of offices and our staffing levels.

Professional fees. Professional fees include legal services required to complete certain transactions, resolve legal matters or delinquent loans, and the cost of loan review professionals, co-sourced internal audit, external auditors and other consultants, including consulting services dedicated to technology initiatives. Such expenses were $66.5 million in 2020, compared to $68.1 million in 2019 and $60.1 million in 2018. The decrease in professional fees in 2020 was primarily due to lower audit and legal fees, partially offset by higher consulting fees.

Advertising and marketing. We advertise in various forms of media, including digital media, newspapers, radio, and television, primarily to support growth in our Preferred Banking offices and for advertising and marketing initiatives. Advertising and marketing expenses were $43.1 million in 2020, $66.0 million in 2019 and $60.5 million in 2018. These expenses vary based on the number of marketing initiatives, level of advertising costs and costs associated with holding client events to support our growth. The decrease in 2020 was primarily due to a decrease in advertising and decreased costs associated with holding client events as a result of the pandemic.

FDIC assessments. FDIC assessments were $44.1 million in 2020, $38.8 million in 2019 and $58.1 million in 2018. The increase in 2020 was primarily due to growth in the assessment base as a result of the growth in average total assets, partially offset by a decrease in our assessment rate.

Other expenses. Other expenses were $258.2 million in 2020, compared to $262.1 million in 2019 and $234.8 million in 2018. These expenses include costs related to lending and deposit activities, client service, prepayment penalties on FHLB advances, insurance, charitable contributions, hiring and other costs related to expanding operations, as well as amortization of intangibles. The decrease in deposit client related costs in 2020 was primarily due to lower expenses associated with foreign currency deposit balances. The decrease in travel and entertainment was the result of decreased activity resulting from the pandemic. Other operating expenses include training, employee event costs, postage, cash management, custody and clearing, and other miscellaneous expenses. The following table presents the main components of other expenses:

($ in thousands)	Year Ended December 31, 2020	2019	2018
Other expenses:			
Deposit client related costs	$ 40,269	$ 72,669	$ 55,581
Prepayment penalties on FHLB advances	26,789	—	—
Loan related costs	20,965	14,729	21,507
Subscriptions	18,552	17,024	14,827
Insurance	12,671	11,670	11,400
Charitable contributions	12,439	4,167	4,153
Travel and entertainment	11,308	25,950	23,049
Recruiting	9,063	11,786	10,086
Amortization of intangibles	7,757	11,874	16,247
Other operating expenses	98,390	92,232	77,988
Total other expenses	$258,203	$262,101	$234,838

Included in insurance expense are costs related to a parametric earthquake insurance policy (the "Policy"). Pursuant to this Policy, the insurer is required to pay us: (i) $75 million upon the occurrence of an earthquake during the Policy's term that measures at least 7.0 on the moment magnitude scale and has an epicenter within an 85-mile radius of 111 Pine Street in San Francisco, California (our headquarters); and/or (ii) $30 million upon the occurrence of an earthquake during the Policy's term that measures at least 7.5 on the moment magnitude scale and has an epicenter within an 85-mile radius of 1888 Century Park East, Los Angeles, California (our Los Angeles office). The Bank is not required to incur any loss in order to receive proceeds under the Policy and would receive payment within 15 business days following such occurrence. The Policy's term is scheduled to end on December 30, 2021.

Provision for Income Taxes

The provision for income taxes varies from statutory rates due to the amount of income for financial statement and tax purposes and the rates charged by federal and state authorities.

The Bank's effective tax rate for 2020 was 20.2%, compared to 17.9% for 2019 and 18.8% for 2018. The effective tax rate varies based on the level of tax credit investments, tax-exempt securities, tax-advantaged loans, investments in life insurance and the amount of excess tax benefits from exercise or vesting of share-based awards. The increase in the effective tax rate in 2020 was primarily the result of lower excess tax benefits from a decrease in stock options exercised by employees, partially offset by a tax refund from an amended tax return.

The following table presents additional information about the effective tax rate:

Effective Tax Rate	Year Ended December 31, 2020	2019	2018
Effective tax rate, prior to excess tax benefits and tax refund from an amended tax return	21.9%	21.4%	21.0%
Excess tax benefits—stock options	(0.6)	(2.9)	(1.3)
Excess tax benefits—other stock awards	(0.7)	(0.6)	(0.9)
Total excess tax benefits	(1.3)	(3.5)	(2.2)
Tax refund from an amended tax return	(0.4)	—	—
Effective tax rate	20.2%	17.9%	18.8%

The number of options exercised or stock awards vested impact the amount of excess tax benefits recorded as a reduction in provision for income taxes. The following table presents excess tax benefits recognized for stock options and other stock awards:

	Year Ended December 31,					
	2020		2019		2018	
($ in thousands)	Number of Awards Exercised or Vested	Related Excess Tax Benefit	Number of Awards Exercised or Vested	Related Excess Tax Benefit	Number of Awards Exercised or Vested	Related Excess Tax Benefit
Stock options	301,903	$ 8,221	1,444,654	$33,696	621,945	$13,986
Other stock awards	1,308,556	8,659	1,221,979	6,476	1,071,476	9,110
Total	1,610,459	$16,880	2,666,633	$40,172	1,693,421	$23,096

Business Segments

We currently conduct our business through two reportable business segments: Commercial Banking and Wealth Management.

The principal business activities of the Commercial Banking segment are gathering deposits (retail deposit gathering and private banking activities), originating and servicing loans (primarily real estate secured mortgage loans) and investing in investment securities. The primary sources of revenue for this segment are: interest earned on loans and investment securities, fees earned in connection with loan and deposit services, and income earned on loans serviced for investors. Principal expenses for this segment are interest incurred on interest-bearing liabilities, including deposits and borrowings, general and administrative costs and provision for credit losses.

The principal business activities of the Wealth Management segment are (i) the investment management activities of FRIM, which manages investments for individuals and institutions in equity securities, fixed income securities, balanced portfolios, and alternative investments; (ii) our money market mutual fund activities through third-party providers and the brokerage activities of FRSC (these two activities collectively, "Brokerage and Investment"); (iii) sales of life insurance policies and annuity contracts through FRSC and FRIM; (iv) trust and custody services provided by the Trust Company; and (v) our foreign exchange activities conducted on behalf of clients. The primary sources of revenue for this segment are investment management fees, brokerage and investment fees, insurance fees, trust fees and foreign exchange fee income. In addition, the Wealth Management segment earns a deposit earnings credit for client deposit accounts that are maintained at the Bank, including sweep deposit accounts. The Wealth Management segment's principal expenses are personnel-related costs and other general and administrative expenses. For complete segment information, see Note 25 to "Item 8. Financial Statements and Supplementary Data."

Commercial Banking

The following table presents the operating results of the Bank's Commercial Banking segment:

	Year Ended December 31,			% Change	
($ in thousands)	**2020**	**2019**	**2018**	**2020 vs. 2019**	**2019 vs. 2018**
Net interest income	$3,141,078	$2,674,061	$2,420,252	17%	10%
Provision for credit losses	157,091	61,690	76,092	155%	(19)%
Noninterest income	123,626	104,757	108,042	18%	(3)%
Noninterest expense	1,915,584	1,725,443	1,519,635	11%	14%
Income before provision for income taxes	1,192,029	991,685	932,567	20%	6%
Provision for income taxes	230,984	163,132	164,002	42%	(1)%
Net income	$ 961,045	$ 828,553	$ 768,565	16%	8%

Net interest income for Commercial Banking was $3.1 billion in 2020, compared to $2.7 billion in 2019 and $2.4 billion in 2018. The increase in 2020 was primarily due to an increase in average interest-earning assets, partially offset by a decrease in net interest margin.

Beginning in the first quarter of 2020, the Bank adopted the CECL methodology under ASC 326, in which the ACL reflects expected credit losses over the life of loans and held-to-maturity debt securities, and incorporates macroeconomic forecasts as well as historical loss rates. Additionally, the level of provision for unfunded loan commitments is determined based on the dollar amounts expected to fund, and the loss rates that are calculated using the same assumptions as the associated funded balance. Prior to adoption of ASC 326, the level of provision for credit losses on loans was based on an incurred loss methodology, which did not incorporate lifetime expected losses or macroeconomic forecasts. The provision for credit losses for Commercial Banking was $157.1 million in 2020, compared to $61.7 million in 2019 and $76.1 million in 2018. The increase in 2020 resulted primarily from loan growth and the implementation of the CECL methodology beginning in 2020, which incorporates an economic outlook reflecting the impact of COVID-19. The macroeconomic forecasts used in determining the ACL, under different conditions or using different assumptions or estimates, could result in significantly different changes in the ACL. It is difficult to estimate how potential changes in specific factors might affect the overall ACL and current results may not reflect the potential future impact of macroeconomic forecast changes.

Noninterest income for Commercial Banking was $123.6 million in 2020, compared to $104.8 million in 2019 and $108.0 million in 2018. The increase in 2020 was primarily driven by the elevated gain on sale of loans, which included $10.3 million related to realized discounts on previously purchased loans when these loans were sold, and income from investments in life insurance, which included a $5.3 million gain from life insurance proceeds, partially offset by lower loan servicing fees due to a net provision for valuation allowance established on MSRs.

Noninterest expense for Commercial Banking was $1.9 billion in 2020, compared to $1.7 billion in 2019 and $1.5 billion in 2018. The increase in 2020 was primarily due to higher salaries and benefits as a result of the addition of new personnel, higher incentive compensation and other activities that support lending and deposit growth, as well as in response to the pandemic. The increase in 2020 was also due to increased information systems costs from the continued investments in the expansion of the franchise, partially offset by lower travel and entertainment, as well as advertising and marketing costs as a result of the pandemic.

Provision for income taxes for Commercial Banking in 2020 was $231.0 million, compared to $163.1 million in 2019 and $164.0 million in 2018. The provision for income taxes varies based on the level of tax-advantaged investments, and the amount of tax benefits from exercise or vesting of share-based awards. The increase in 2020 was primarily due to higher pre-tax income and lower excess tax benefits from a decrease in stock options exercised by employees, partially offset by a tax refund from an amended tax return.

Wealth Management

The following table presents the operating results of the Bank's Wealth Management segment:

	Year Ended December 31,			% Change	
($ in thousands)	**2020**	**2019**	**2018**	**2020 vs. 2019**	**2019 vs. 2018**
Net interest income	$121,474	$ 90,106	$ 80,856	35%	11%
Noninterest income	570,749	506,634	469,876	13%	8%
Noninterest expense	550,287	455,189	431,557	21%	5%
Income before provision for income taxes	141,936	141,551	119,175	0%	19%
Provision for income taxes	38,830	39,775	33,912	(2)%	17%
Net income	$103,106	$101,776	$ 85,263	1%	19%

Net interest income for Wealth Management was $121.5 million in 2020, compared to $90.1 million in 2019 and $80.9 million in 2018. Net interest income is earned from Wealth Management client deposits with the Bank, for which Wealth Management earns a deposit earnings credit and fees earned for Wealth Management sweep deposit accounts. The deposit earnings credit and fees vary based on the amount and type of Wealth Management client deposits. Net interest income increased in 2020 primarily as a result of growth in Wealth Management client deposits, including sweep deposit accounts.

Wealth Management client deposits totaled $16.2 billion and $9.8 billion at December 31, 2020 and 2019, respectively, including sweep deposits. Wealth Management client deposits, including sweep accounts, averaged $11.8 billion, $8.8 billion and $7.5 billion in 2020, 2019 and 2018, respectively. As noted above, Wealth Management is allocated a deposit earnings credit and fees as net interest income, which is included in the Wealth Management results. Net interest income as a percentage of the average deposits generated by Wealth Management represented 1.03% in 2020, compared to 1.02% in 2019 and 1.08% in 2018.

The allocated earnings credit represents only a portion of the total net interest income generated by these deposits for the Bank. The Bank's holistic approach to generating a full relationship with our clients is reflected in the total impact that these Wealth Management deposits have to the Bank's overall net interest income. The Bank's consolidated net interest margin was 2.72% in 2020, 2.83% in 2019 and 2.96% in 2018. Using this overall net interest margin and the average Wealth Management deposits for each year, the Wealth Management deposits, on a consolidated basis, contributed net interest income of approximately $322.2 million in 2020, $249.8 million in 2019 and $221.9 million in 2018.

Noninterest income for Wealth Management was $570.7 million in 2020, compared to $506.6 million in 2019 and $469.9 million in 2018. The increase in 2020 was primarily due to higher investment management fees, brokerage and investment fees and foreign exchange fee income. Investment management fees vary with the amount of assets managed and the type of services and investments chosen by the client, which are impacted by market conditions. The future level of investment management fees depends on the level and mix of AUM, type of services and investments chosen by the client, market conditions and our ability to attract new clients. Brokerage and investments fees vary based on the volume and type of transaction activity, conditions in the securities markets and our ability to attract new clients.

Noninterest expense for Wealth Management was $550.3 million in 2020, compared to $455.2 million in 2019 and $431.6 million in 2018. The increase in 2020 was primarily due to higher salaries and benefits, including incentive compensation, as a result of overall growth in our business and the addition of new wealth managers. We continue to expand our client base and capabilities in all markets to grow this segment.

AUM and AUA, in aggregate, were $194.5 billion at December 31, 2020, compared to $151.0 billion a year ago, an increase of 29% driven by net client inflow and market appreciation. Our Wealth Management strategy is focused on both managing investment portfolios for our clients and keeping custody of such assets in brokerage accounts at FRSC. By providing multiple services, we are able to better develop a full Wealth Management and banking relationship, as well as the ability to gather deposits, including sweep accounts. As described above, client deposits from Wealth Management generate net interest income for the Bank. Certain Wealth Management client assets that are held or managed by different areas within our Wealth Management business generate multiple revenue streams for the Bank. As a result of having these multiple revenue streams from certain client assets, such assets are included in more than one type of Wealth Management asset category in the table below. The following table presents the AUM and AUA by the entities comprising our Wealth Management segment:

($ in millions)	December 31, 2020	December 31, 2019
First Republic Investment Management	$ 83,596	$ 66,029
Brokerage and investment:		
Brokerage	88,059	68,807
Money market mutual funds	9,003	4,268
Total brokerage and investment	97,062	73,075
Trust Company:		
Trust	9,910	7,121
Custody	3,889	4,818
Total Trust Company	13,799	11,939
Total AUM and AUA	$194,457	$151,043

The following table presents changes in AUM and AUA. Net client flow includes adding to the balance in existing accounts by the depositing of additional funds and the opening of new accounts, offset by the closing of accounts or the withdrawing of funds. The portion of the net change that cannot be attributed to the deposit or withdrawal of funds is reported in market appreciation (depreciation).

	Year Ended December 31,		
($ in millions)	2020	2019	2018
AUM and AUA:			
Beginning balance	$151,043	$126,213	$106,961
Net client flow	25,051	1,350	24,366
Market appreciation (depreciation)	18,363	23,480	(5,114)
Ending balance	$194,457	$151,043	$126,213

The following table presents a distribution of FRIM's AUM by type of investment:

	% of AUM	
	December 31,	
Investment Type	2020	2019
Equities	56%	51%
Fixed income	28	30
Alternative investments	9	11
Cash and cash equivalents	7	8
Total	100%	100%

The following table presents fee income as a percentage of average AUM and AUA for Wealth Management:

	Year Ended December 31,		
	2020	2019	2018
First Republic Investment Management	0.56%	0.57%	0.59%
Brokerage and investment:			
Brokerage	0.06%	0.05%	0.05%
Money market mutual funds	0.13%	0.33%	0.41%
Total brokerage and investment	0.06%	0.06%	0.06%
Trust Company:			
Trust	0.19%	0.20%	0.21%
Custody	0.10%	0.08%	0.08%
Total Trust Company	0.16%	0.15%	0.15%
Total	0.29%	0.30%	0.32%

Balance Sheet Analysis

Investments

The following table presents the investment portfolio:

($ in thousands)	December 31, 2020	2019	2018
Debt securities available-for-sale:			
Agency residential MBS	$ 1,096,383	$ 370,326	$ 26,095
Other residential MBS	21,451	4,240	4,552
Agency commercial MBS	741,008	860,153	1,701,021
Securities of U.S. states and political subdivisions—taxable	47,473	47,450	47,448
Total	$ 1,906,315	$ 1,282,169	$ 1,779,116
Debt securities held-to-maturity:			
U.S. Government-sponsored agency securities	$ 50,000	$ 368,065	$ 1,044,912
Agency residential MBS	1,300,551	2,224,252	1,868,587
Other residential MBS	12,875	—	—
Agency commercial MBS	2,488,504	3,296,724	3,375,409
Securities of U.S. states and political subdivisions:			
Tax-exempt municipal securities	11,799,170	10,483,668	7,952,605
Tax-exempt nonprofit debentures	74,910	138,140	142,508
Taxable municipal securities	811,504	612,704	52,952
Corporate debt securities	72,698	24,080	—
Total	16,610,212	17,147,633	14,436,973
Less: Allowance for credit losses	(6,902)	—	—
Debt securities held-to-maturity, net	$16,603,310	$17,147,633	$14,436,973
Equity securities (fair value):			
Mutual funds and marketable equity securities	$ 20,566	$ 19,586	$ 18,719

The total combined investment securities portfolio (consisting of available-for-sale, held-to-maturity and equity securities, excluding any ACL) represented 13% and 16% of total assets at December 31, 2020 and 2019, respectively.

The average duration of the available-for-sale portfolio was 3.8 and 3.5 years at December 31, 2020 and 2019, respectively. The average duration of the held-to-maturity portfolio was 8.9 and 8.3 years at December 31, 2020 and 2019, respectively.

At December 31, 2020, the tax-exempt and taxable municipal securities had an average credit rating of AA and the portfolio was well-diversified with an average issuer position of approximately $26.2 million. The tax-exempt nonprofit debentures are securities issued through state and local agencies where we have a banking relationship with nonprofit entities. The debentures are reviewed, approved and monitored by our business banking group, similar to business loans.

The following table presents the remaining contractual principal maturities of debt securities and contractual yields calculated on a taxable-equivalent basis at December 31, 2020. The weighted average yield is calculated using the amortized cost of debt securities. Actual maturities for certain U.S. Treasury securities, U.S. Government agency securities, U.S. Government-sponsored agency securities and municipal securities may

occur earlier than their stated contractual maturities because the note issuers may have the right to call outstanding amounts ahead of their contractual maturities. In addition, the remaining contractual principal maturities for MBS do not consider prepayments. Expected remaining maturities for MBS can differ from contractual maturities because borrowers have the right to prepay obligations, with or without penalties, prior to contractual maturity.

			Contractual Principal—Remaining Maturity							
			Within 1 Year		After 1 Through 5 Years		After 5 Through 10 Years		After 10 Years	
($ in thousands)	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield
Available-for-sale:										
Agency residential MBS	$ 1,096,383	1.60%	$ —	—%	$ 1,439	1.20%	$ —	—%	$ 1,094,944	1.60%
Other residential MBS	21,451	2.05%	—	—%	—	—%	—	—%	21,451	2.05%
Agency commercial MBS	741,008	2.04%	860	2.67%	110,653	0.51%	130,553	0.93%	498,942	2.69%
Securities of U.S. states and political subdivisions—taxable	47,473	1.26%	—	—%	—	—%	—	—%	47,473	1.26%
Total carrying value of debt securities	$ 1,906,315		$ 860		$112,092		$130,553		$ 1,662,810	
Held-to-maturity:										
U.S. Government-sponsored agency securities	$ 50,000	1.57%	$ —	—%	$ —	—%	$ —	—%	$ 50,000	1.57%
Agency residential MBS	1,300,551	1.43%	—	—%	3,661	2.72%	—	—%	1,296,890	1.42%
Other residential MBS	12,875	1.79%	—	—%	—	—%	—	—%	12,875	1.79%
Agency commercial MBS	2,488,504	2.84%	—	—%	—	—%	—	—%	2,488,504	2.84%
Securities of U.S. states and political subdivisions:										
Tax-exempt municipal securities	11,799,170	4.16%	235,319	5.40%	659,689	5.48%	168,696	4.91%	10,735,466	4.04%
Tax-exempt nonprofit debentures	74,910	4.14%	—	—%	—	—%	—	—%	74,910	4.14%
Taxable municipal securities	811,504	3.28%	—	—%	—	—%	—	—%	811,504	3.28%
Corporate debt securities	72,698	2.96%	—	—%	—	—%	—	—%	72,698	2.96%
Total carrying value of debt securities	$16,610,212		$235,319		$663,350		$168,696		$15,542,847	

Allowance for Credit Losses on Debt Securities

Beginning January 1, 2020, upon adoption of ASC 326, the Bank evaluates available-for-sale debt securities that experienced a decline in fair value below amortized cost for credit impairment. As of December 31, 2020, no ACL was recognized on available-for-sale debt securities.

In addition, beginning January 1, 2020, an ACL is recorded on held-to-maturity debt securities, and represents the portion of the amortized cost that the Bank does not expect to collect over the life of the securities. As of December 31, 2020, the allowance on held-to-maturity debt securities totaled $6.9 million and consisted primarily of the allowance on securities of U.S. states and political subdivisions (including tax-exempt municipal securities, tax-exempt nonprofit debentures and taxable municipal securities). The allowance on these securities is determined using a quantitative model that incorporates the security's characteristics, macroeconomic forecasts and historical loss rates to determine expected credit losses over the life of the securities. No ACL is recognized on held-to-maturity U.S. Government-sponsored agency securities, agency residential MBS and agency commercial MBS due to the explicit or implicit guarantee by the Federal Government.

For a complete description of the accounting policies for determining the Bank's ACL on debt securities, see Note 1 and Note 3 in "Item 8. Financial Statements and Supplementary Data."

Loan Portfolio

The following table presents the Bank's loan portfolio, ACL and loans held for sale. Beginning in April 2020, the Bank became a lender under the PPP.

($ in millions)	December 31, 2020	2019 [(1)]	2018 [(1)]	2017 [(1)]	2016 [(1)]
Residential real estate					
Single family	$ 61,370	$47,986	$37,955	$31,508	$26,267
Home equity lines of credit	2,450	2,501	2,543	2,736	2,635
Single family construction	788	762	645	591	495
Total residential real estate	64,608	51,249	41,143	34,835	29,397
Income property					
Multifamily	13,769	12,353	10,295	8,594	6,664
Commercial real estate	8,018	7,449	6,640	6,047	5,381
Multifamily/commercial construction	2,024	1,696	1,677	1,199	1,015
Total income property	23,811	21,498	18,612	15,840	13,060
Business					
Capital call lines of credit	8,150	5,571	4,837	2,536	1,811
Tax-exempt	3,366	3,042	3,031	2,837	2,416
Other business	3,340	3,034	3,131	2,922	2,645
PPP	1,841	—	—	—	—
Total business	16,697	11,647	10,999	8,295	6,872
Other					
Stock secured	2,518	1,898	1,433	1,084	823
Other secured	1,819	1,433	1,106	1,015	724
Unsecured	3,113	3,072	2,572	1,771	1,132
Total other	7,450	6,403	5,111	3,870	2,679
Total loans held for investment	112,566	90,797	75,865	62,840	52,008
Less: Allowance for credit losses	(635)	(496)	(439)	(366)	(306)
Loans, net	111,931	90,301	75,426	62,474	51,702
Loans held for sale	21	23	99	88	407
Total	$111,952	$90,324	$75,525	$62,562	$52,109

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

The following table presents an analysis of our loan portfolio at December 31, 2020, by major geographic location:

($ in millions)	San Francisco Bay Area	New York Metro Area	Los Angeles Area	Boston Area	San Diego Area	Other California Areas	Other	Total	%
Residential real estate									
Single family [1]	$24,661	$11,757	$11,608	$5,999	$1,846	$ 612	$ 4,908	$ 61,391	54%
Home equity lines of credit	1,004	388	492	282	56	11	217	2,450	2
Single family construction	249	136	260	29	23	6	85	788	1
Total residential real estate	25,914	12,281	12,360	6,310	1,925	629	5,210	64,629	57
Income property									
Multifamily	5,500	2,763	2,794	565	1,217	220	710	13,769	12
Commercial real estate	3,260	1,608	1,604	298	211	261	776	8,018	7
Multifamily/commercial construction	327	329	874	58	77	5	354	2,024	2
Total income property	9,087	4,700	5,272	921	1,505	486	1,840	23,811	21
Business									
Capital call lines of credit	2,903	2,540	431	776	43	—	1,457	8,150	7
Tax-exempt	953	631	872	383	243	2	282	3,366	3
Other business	1,415	546	519	234	236	14	376	3,340	3
PPP	925	252	340	91	72	16	145	1,841	2
Total business	6,196	3,969	2,162	1,484	594	32	2,260	16,697	15
Other									
Stock secured	454	297	515	191	98	130	833	2,518	2
Other secured	316	748	71	230	8	1	445	1,819	2
Unsecured	881	788	641	285	137	52	329	3,113	3
Total other	1,651	1,833	1,227	706	243	183	1,607	7,450	7
Total	$42,848	$22,783	$21,021	$9,421	$4,267	$1,330	$10,917	$112,587	100%
% by location at December 31, 2020	38%	20%	19%	8%	4%	1%	10%	100%	
% by location at December 31, 2019	39%	21%	18%	8%	4%	1%	9%	100%	

(1) Includes loans held for sale.

At both December 31, 2020 and 2019, approximately 51% of total loans were secured by real estate properties located in California. Future economic or political conditions, natural disasters, disruptions and instability caused by COVID-19 or other developments in California could adversely affect the value of real estate secured mortgage loans.

The following table presents the maturity distribution (based on unpaid principal balance) of our business, real estate construction loans and other non-mortgage loans as of December 31, 2020. The maturity dates were determined based on the remaining scheduled principal repayment dates, without consideration of prepayments.

($ in thousands)	1 Year or Less	>1 Through 5 Years	>5 Years	Total
Maturity distribution:				
Business [1]	$ 8,156,498	$ 4,043,548	$ 4,537,590	$ 16,737,636
Real estate construction [2]	1,586,024	1,240,878	5,419	2,832,321
Other [3]	2,739,941	2,046,675	2,655,334	7,441,950
Total	$ 12,482,463	$ 7,331,101	$ 7,198,343	$ 27,011,907

(1) Includes capital call lines of credit, tax-exempt, other business and PPP loans.
(2) Includes single family construction and multifamily/commercial construction loans.
(3) Includes stock secured, other secured and unsecured loans.

The following table presents the distribution (based on unpaid principal balance) of our business, real estate construction loans and other non-mortgage loans outstanding as of December 31, 2020 that are due after one year between fixed and adjustable interest rates:

($ in thousands)	Fixed	Adjustable	Total
Business [1]	$ 6,815,984	$1,765,154	$ 8,581,138
Real estate construction [2]	822,130	424,167	1,246,297
Other [3]	2,698,935	2,003,074	4,702,009
Total	$10,337,049	$4,192,395	$ 14,529,444

(1) Includes capital call lines of credit, tax-exempt, other business and PPP loans.
(2) Includes single family construction and multifamily/commercial construction loans.
(3) Includes stock secured, other secured and unsecured loans.

The Bank's loan portfolio includes: (1) adjustable-rate loans tied to Prime, LIBOR, COFI, and other reference rates such as 12-month average of 1-year CMT, which are currently adjustable; (2) hybrid-rate loans, for which the initial rate is fixed for a period from one year to as many as ten years, and thereafter the rate becomes adjustable; and (3) fixed-rate loans, for which the interest rate does not change through the life of the loan. The following table presents our loan portfolio at December 31, 2020, by rate type:

($ in millions)	Adjustable Rate					Hybrid Rate	Fixed Rate	Total
	Prime	LIBOR	COFI	Other	Total			
Residential real estate								
Single family [1]	$ 241	$2,365	$2,404	$ 163	$ 5,173	$43,056	$13,162	$ 61,391
Home equity lines of credit	2,444	5	—	—	2,449	—	1	2,450
Single family construction	34	—	—	—	34	—	754	788
Total residential real estate	2,719	2,370	2,404	163	7,656	43,056	13,917	64,629
Income property								
Multifamily	244	489	1,590	123	2,446	6,683	4,640	13,769
Commercial real estate	397	412	375	36	1,220	2,510	4,288	8,018
Multifamily/commercial construction	846	131	—	20	997	10	1,017	2,024
Total income property	1,487	1,032	1,965	179	4,663	9,203	9,945	23,811
Business								
Capital call lines of credit	7,051	694	—	—	7,745	—	405	8,150
Tax-exempt	139	196	—	—	335	260	2,771	3,366
Other business	1,305	121	10	18	1,454	159	1,727	3,340
PPP	—	—	—	—	—	—	1,841	1,841
Total business	8,495	1,011	10	18	9,534	419	6,744	16,697
Other								
Stock secured	1,119	749	—	608	2,476	12	30	2,518
Other secured	726	779	—	121	1,626	1	192	1,819
Unsecured	519	32	—	9	560	—	2,553	3,113
Total other	2,364	1,560	—	738	4,662	13	2,775	7,450
Total	$15,065	$5,973	$4,379	$1,098	$26,515	$52,691	$33,381	$112,587
% by rate type at December 31, 2020	13%	5%	4%	1%	23%	47%	30%	100%
% by rate type at December 31, 2019	11%	7%	6%	1%	25%	50%	25%	100%

(1) Includes loans held for sale.

At December 31, 2020, included in the hybrid-rate and fixed-rate loan portfolios are $3.8 billion, or 3% of the total loan portfolio, that either (1) mature within one year; (2) are within one year of adjusting from the initial fixed-rate period; or (3) are committed for sale.

Many of our loan products determine the amount of interest by reference to certain benchmark rates or indices. In December 2020, the IBA, the FCA-regulated and authorized administrator of LIBOR, announced its intention to cease the publication of the one-week and two-month LIBOR tenors after December 31, 2021 and all other LIBOR tenors on June 30, 2023. In addition, the FHLB of San Francisco has announced that it will no longer calculate and publish COFI after January 2022. The Bank ceased offering new loans indexed to LIBOR in the first half of 2019 (with some limited exceptions for business loans) and to COFI in the first half of 2018 and the Bank has a transition plan in place with respect to existing loans indexed to LIBOR and COFI. In lieu of LIBOR or COFI, new loan originations are currently indexed to Prime or a 12-month average of 1-year CMT.

Residential real estate

Residential real estate includes single family, HELOCs and single family construction loans.

Single Family

Our single family loans include loans that have an initial interest-only period. Subsequent to the initial interest-only period, these loans fully and evenly amortize until maturity. Underwriting standards for all such loans require substantial borrower net worth, substantial post-loan liquidity, excellent credit scores and significant down payments. As part of our underwriting standards, we verify the ability of the borrowers to repay our loans. The following table presents our single family loan portfolio, including loans held for sale, that fully and evenly amortize until maturity following an initial interest-only period of generally ten years:

	December 31,			
	2020		2019	
($ in thousands)	Unpaid Principal Balance	% of Total Single Family	Unpaid Principal Balance	% of Total Single Family
Interest-only single family	$38,849,327	64%	$31,675,974	66%

At December 31, 2020, interest-only home loans had a weighted average LTV of 56%, based on appraised value at the time of origination, and had credit scores averaging 764 at origination. At December 31, 2020, interest-only home loans with an LTV at origination of more than 80% comprised less than 1% of the unpaid principal balance of our single family loan portfolio, including loans held for sale.

The following table presents the years in which amortization begins for single family loans, including loans held for sale:

	December 31, 2020
($ in thousands)	Unpaid Principal Balance
Currently amortizing	$22,299,532
Amortization period starts in:	
2021	484,109
2022	658,734
2023	664,042
2024	860,324
2025	1,490,072
2026 and thereafter	34,692,046
Total	$61,148,859

The following table presents LTV information at origination for all single family loans, including loans held for sale:

($ in thousands)	December 31, 2020	
	Unpaid Principal Balance	% of Total
LTV at Origination		
Less than or equal to 60%	$33,424,175	54.7%
Greater than 60% to 70%	18,397,951	30.1
Greater than 70% to 80%	8,904,521	14.5
Greater than 80%	422,212	0.7
Total	$61,148,859	100.0%

We do not originate single family loans with the characteristics generally described as "subprime" or "high cost." Subprime loans are typically made to borrowers with little or no cash reserves and poor or limited credit. Often, subprime loans are underwritten using limited documentation. Over the past two years, the single family loans originated by us had a weighted average credit score of 769, and all of our home loans were underwritten using full documentation.

Home Equity Lines of Credit

Our single family HELOC product requires the payment of interest each month on the outstanding balance. During the first ten years of the loan term, principal amounts may be repaid or drawn at the borrower's option; thereafter, the unpaid principal balance fully and evenly amortizes over a period of fifteen years. We underwrite HELOCs based on the same standards as single family home loans. As a result, our delinquency and loss experience on HELOCs has been similar to the experience for single family loans.

For HELOCs that are in second lien position, the LTVs in the table below are presented on a CLTV basis, including the total HELOC commitment and any balance on a first residential mortgage. As of December 31, 2020, approximately 38% of HELOCs are in first lien position, and approximately 49% of HELOCs are in second lien position behind a first residential mortgage originated by us, including loans subsequently sold to investors.

The following table presents CLTV information at origination for HELOCs:

($ in thousands)	December 31, 2020		
	Unpaid Principal Balance	Total Commitment	% of Unpaid Principal Balance
CLTV at Origination			
Less than or equal to 60%	$1,607,764	$6,131,981	66.5%
Greater than 60% to 70%	565,448	1,721,669	23.4
Greater than 70% to 80%	229,854	523,065	9.5
Greater than 80%	14,012	20,222	0.6
Total	$2,417,078	$8,396,937	100.0%

The following table presents the years in which amortization begins for HELOCs :

	December 31, 2020	
($ in thousands)	Unpaid Principal Balance	Total Commitment
Currently amortizing	$ 62,468	$ 62,700
Amortization period starts in:		
2021	99,315	246,961
2022	113,531	366,326
2023	108,822	477,282
2024	138,306	546,805
2025	219,252	748,640
2026 and thereafter	1,675,384	5,948,223
Total	$2,417,078	$8,396,937

Single Family Construction

Our single family construction loan portfolio includes loans to individual clients for the construction and ownership of single family homes, primarily in our California and New York markets. These loans are typically disbursed as construction progresses and can be converted into a permanent mortgage loan once the property is occupied. At December 31, 2020 and 2019, the unpaid principal balance of single family construction loans was $791.4 million and $764.9 million, respectively, and the total commitment was $1.5 billion for both years.

Income property

Income property includes multifamily, commercial real estate and multifamily/commercial construction loans.

Multifamily

The following table presents the unpaid principal balance of all multifamily loans and multifamily loans (excluding lines of credit), including loans held for sale, for which interest-only payments may be made for a period of up to ten years, depending upon the borrower, specific underwriting criteria and terms of the loans:

	Unpaid Principal Balance	
	December 31,	
($ in thousands)	2020	2019 [(1)]
Multifamily [(2)]	$13,785,103	$12,380,190
Multifamily—interest-only [(2), (3)]	$ 5,953,691	$ 5,423,180

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.
(2) Includes loans held for sale.
(3) Excludes lines of credit.

At December 31, 2020, interest-only multifamily loans (excluding lines of credit) had a weighted average LTV of 50% based on the appraised value at the time of origination.

Additionally, certain multifamily lines of credit allow for interest-only payments for an initial period. The following table presents the unpaid principal balance, total commitment, and percentage of interest-only lines of credit secured by the equity in multifamily real estate:

($ in thousands)	December 31, 2020 Unpaid Principal Balance	2020 Total Commitment	2020 % of Total Multifamily	2019 [(1)] Unpaid Principal Balance	2019 [(1)] Total Commitment	2019 [(1)] % of Total Multifamily
Multifamily lines of credit—interest-only	$324,784	$687,194	2.4 %	$144,325	$396,530	1.2 %

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

At December 31, 2020, interest-only multifamily lines of credit had a weighted average LTV of 49% based on the appraised value at the time of origination.

Commercial Real Estate

The following table presents the unpaid principal balance of all commercial real estate loans and commercial real estate loans (excluding lines of credit) for which interest-only payments may be made for a period of up to ten years, depending upon the borrower, specific underwriting criteria and terms of the loans:

($ in thousands)	Unpaid Principal Balance December 31, 2020	2019 [(1)]
Commercial real estate	$8,026,232	$7,458,703
Commercial real estate—interest-only [(2)]	$2,822,751	$2,260,225

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.
(2) Excludes lines of credit.

At December 31, 2020, interest-only commercial real estate loans (excluding lines of credit) that allow for interest-only payments had a weighted average LTV of 45% based on the appraised value at the time of origination.

Additionally, certain commercial real estate lines of credit allow for interest-only payments for an initial period. The following table presents the unpaid principal balance, total commitment, and percentage of interest-only lines of credit secured by the equity in commercial real estate:

($ in thousands)	December 31, 2020 Unpaid Principal Balance	2020 Total Commitment	2020 % of Total Commercial Real Estate	2019 [(1)] Unpaid Principal Balance	2019 [(1)] Total Commitment	2019 [(1)] % of Total Commercial Real Estate
Commercial real estate lines of credit—interest-only	$ 360,783	$ 678,878	4.5 %	$ 189,708	$ 483,258	2.5 %

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

At December 31, 2020, interest-only commercial real estate lines of credit had a weighted average LTV of 47% based on the appraised value at the time of origination.

As discussed in "—Asset Quality—Industry Information," the Bank has limited exposure to the areas directly impacted by COVID-19, such as the retail, hotel and restaurant industries. The total unpaid principal balance of these loans was approximately $2.5 billion, and represented 2.2% of our loan portfolio as of December 31, 2020.

Multifamily/Commercial Construction

Our multifamily/commercial construction loan portfolio includes loans for the construction and ownership of other types of properties other than owner-occupied single family homes. These loans are typically disbursed as construction progresses and can be converted into a permanent mortgage loan once the property is occupied. At December 31, 2020 and 2019, the unpaid principal balance of multifamily/commercial construction loans was $2.0 billion and $1.7 billion, respectively, and the total commitment was $3.6 billion and $3.1 billion, respectively.

Business

Business loans include capital call lines of credit, tax-exempt, other business and beginning in April 2020, PPP loans. Business loans provide funding for investment opportunities, bridge capital calls from investors, and meet the working capital cash flow requirements and various other financing needs of our business and non-profit clients.

The business loan portfolio is comprised primarily of capital call lines to private equity and venture capital funds, and loans to independent schools and other non-profit organizations, which include social service organizations, the performing arts, museums, historical societies and community foundations. In addition, we provide operating lines of credit and term loans to other business clients to meet their working capital needs.

The following table presents the amortized cost and total commitment for business loans by type:

	December 31,			
	2020		2019	
($ in thousands)	Amortized Cost	Total Commitment	Amortized Cost	Total Commitment
Private Equity/Venture Capital Funds	$ 8,287,269	$ 20,781,850	$ 5,730,335	$ 15,529,658
Schools/Non-profit Organizations	3,699,486	4,674,110	3,437,471	4,229,283
Investment Firms	483,011	1,273,598	467,295	988,643
Real Estate Related Entities	624,282	995,962	540,870	904,076
Professional Service Firms	226,794	543,680	188,794	438,278
Aviation/Marine	400,010	406,228	361,696	372,603
Vineyards/Wine	157,811	259,385	185,408	258,205
Clubs and Membership Organizations	146,290	228,916	147,104	235,096
Entertainment Industry	28,762	116,752	29,045	108,542
Other	801,851	1,250,203	558,798	893,431
Total excluding PPP	14,855,566	30,530,684	11,646,816	23,957,815
PPP	1,841,376	1,865,864	—	—
Total including PPP	$ 16,696,942	$ 32,396,548	$ 11,646,816	$ 23,957,815

The following table presents the unpaid principal balance, total commitment and utilization percentages for business lines of credit by type:

	Lines of Credit					
	December 31,					
	2020			2019		
($ in thousands)	Unpaid Principal Balance	Total Commitment	Utilization Percentage	Unpaid Principal Balance	Total Commitment	Utilization Percentage
Private Equity/Venture Capital Funds	$ 7,965,515	$ 20,450,623	38.9%	$ 5,481,904	$ 15,275,057	35.9%
Schools/Non-profit Organizations	615,754	1,588,029	38.8%	296,089	1,085,330	27.3%
Investment Firms	274,812	1,065,128	25.8%	250,673	771,744	32.5%
Real Estate Related Entities	252,746	623,223	40.6%	245,720	607,478	40.4%
Professional Service Firms	65,566	382,496	17.1%	76,275	325,654	23.4%
Vineyards/Wine	51,095	152,568	33.5%	59,648	132,191	45.1%
Entertainment Industry	26,533	113,461	23.4%	29,534	108,094	27.3%
Clubs and Membership Organizations	8,101	90,603	8.9%	31,923	119,638	26.7%
Aviation/Marine	3,590	8,915	40.3%	933	11,139	8.4%
Other	422,533	870,111	48.6%	178,929	513,879	34.8%
Total	$ 9,686,245	$ 25,345,157	38.2%	$ 6,651,628	$ 18,950,204	35.1%

Included within business lines of credit are capital call lines of credit, which are credit facilities that enable private equity and venture capital funds to bridge the timing between funding investments and receiving funds from limited partner capital calls. As of December 31, 2020, the unpaid principal balance and total commitment for capital call lines of credit was $8.2 billion and $20.5 billion, respectively, resulting in a utilization rate for these lines of credit of 39.3% at December 31, 2020.

The following table presents the unpaid principal balance of business term loans by type:

	Term Loans	
	Unpaid Principal Balance	
	December 31,	
($ in thousands)	2020	2019
Schools/Non-profit Organizations	$3,086,081	$3,143,953
Aviation/Marine	397,313	361,464
Real Estate Related Entities	372,739	296,598
Private Equity/Venture Capital Funds	331,227	254,601
Investment Firms	208,470	216,899
Professional Service Firms	161,184	112,624
Clubs and Membership Organizations	138,313	115,458
Vineyards/Wine	106,817	126,014
Entertainment Industry	3,291	448
Other	380,092	379,552
Total excluding PPP	5,185,527	5,007,611
PPP	1,865,864	—
Total including PPP	$7,051,391	$5,007,611

PPP Loans

Beginning in April 2020, the Bank became a lender under the PPP, which was established under the CARES Act and subsequently amended by the Economic Aid Act under the CAA, to provide loans to small businesses impacted by COVID-19 for payroll costs and certain operating expenses. The loans are fully guaranteed by the SBA and additionally may be purchased and forgiven by the SBA if the borrower uses the proceeds for eligible expenses in accordance with program requirements for forgiveness.

For PPP loans originated in 2020, the loan terms are identical for all borrowers with a 1% interest rate, minimum 2-year maturity, and includes a deferral period of principal and interest payments. Interest accrues during the deferral period, and the loan may be repaid prior to maturity without prepayment penalty fees. As of December 31, 2020, the unpaid principal balance of PPP loans was approximately $1.9 billion. As of December 31, 2020, $239.8 million (1,372 loans) have received forgiveness and $286.2 million (815 loans) were in the forgiveness review process by the SBA.

The Bank recorded deferred fees, net of origination costs, of approximately $43.0 million related to PPP loans, which are being amortized into interest income over their contractual life (two years). The amortization of these net deferred fees will be accelerated upon forgiveness and repayment of the loans. For the year ended December 31, 2020, $18.5 million of the net fees were amortized to interest income, including the impact of forgiven loans, and the unamortized balance as of December 31, 2020 was $24.5 million.

As discussed in Note 26. in "Item 8. Financial Statements and Supplementary Data," as of February 24, 2021, the Bank had approximately 3,300 additional PPP loans totaling approximately $500 million that have been approved by the SBA. These PPP loans have the same terms as the loans originated in 2020, except that they have a minimum 5-year maturity.

Other

Other loans include stock secured, other secured and unsecured loans. The following table presents the unpaid principal balance and total commitment for these loans:

	December 31,			
	2020		2019	
($ in thousands)	Unpaid Principal Balance	Total Commitment	Unpaid Principal Balance	Total Commitment
Stock secured	$2,514,076	$ 6,893,234	$1,893,583	$ 5,011,314
Other secured	1,818,577	3,610,177	1,432,263	2,791,202
Unsecured	3,109,297	3,911,540	3,066,982	3,780,347
Total	$7,441,950	$14,414,951	$6,392,828	$11,582,863

Stock Secured

Stock secured loans consist of loans that allow clients to borrow money against eligible marketable securities for a wide range of purposes, including, but not limited to: home renovations, business opportunities and general liquidity.

Other Secured

Other secured loans primarily consist of loans from the professional loan program, which offer individuals an ability to borrow for capital and partnership requirements. As of December 31, 2020 and 2019, loans from the professional loan program had an unpaid principal balance of $1.7 billion and $1.2 billion, respectively, and total commitments of $3.4 billion and $2.5 billion, respectively.

Unsecured

Unsecured loans primarily consist of household debt refinance loans, including term loans and personal lines of credit, which are made to refinance existing household debt and access additional financing at fixed interest rates. Such loans had an unpaid principal balance of $2.5 billion and $2.6 billion at December 31, 2020 and 2019, respectively, and total commitments of $2.6 billion at each period end.

In addition, unsecured loans include other unsecured lines of credit, which are originated to meet the non-mortgage needs of our clients. Such loans generally have a shorter term to maturity, are adjustable with the prime rate and are subject to annual or more frequent review.

Lines of Credit

The following table presents the utilization percentages for lines of credit by type:

	December 31,	
Utilization Percentage	**2020**	**2019** [(1)]
Home equity lines of credit	28.3%	30.3%
Single family construction	51.5%	52.2%
Multifamily	47.4%	46.6%
Commercial real estate	52.9%	53.0%
Multifamily/commercial construction	55.0%	53.0%
Capital call lines of credit	39.3%	35.4%
Tax-exempt	55.7%	31.4%
Other business	29.6%	34.1%
Stock secured	36.0%	37.2%
Other secured	45.1%	45.9%
Unsecured	43.3%	35.1%

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

Loan Originations

Our strategy is to originate relationship-based loans. While we emphasize loans secured by single family residences, we also selectively originate multifamily mortgages, commercial real estate mortgages and other loans, including business loans. We focus on originating specific loan types in our primary markets. The majority of our mortgage loans are secured by properties located in close proximity to one of our offices. Some single family loans are originated for sale in the secondary market. From the inception of our predecessor institution in mid-1985 through December 31, 2020, we have originated approximately $320 billion of loans, of which approximately $36 billion have been sold to investors.

Loan originations include newly originated loans, newly originated lines of credit (based on total commitment), refinanced loans and increases in loan commitment amounts resulting from loan modifications. The following table presents loan originations:

($ in thousands)	Year Ended December 31, 2020	2019 [(1)]	2018 [(1)]
Residential real estate			
Single family	$23,985,959	$16,405,784	$10,784,654
Home equity lines of credit	1,904,945	1,524,031	1,542,747
Single family construction	639,222	588,429	628,297
Total residential real estate	26,530,126	18,518,244	12,955,698
Income property			
Multifamily	3,700,649	3,320,158	3,300,739
Commercial real estate	1,413,716	1,710,820	1,215,839
Multifamily/commercial construction	1,300,609	1,175,922	1,107,066
Total income property	6,414,974	6,206,900	5,623,644
Business			
Capital call lines of credit	9,448,577	7,171,710	6,807,078
Tax-exempt	918,610	287,020	251,165
Other business	2,549,308	1,621,666	2,321,662
PPP	1,981,797	—	—
Total business	14,898,292	9,080,396	9,379,905
Other			
Stock secured	2,467,066	1,769,385	1,541,044
Other secured	1,374,842	1,011,232	560,346
Unsecured	998,346	1,377,319	1,382,552
Total other	4,840,254	4,157,936	3,483,942
Total loans originated	$52,683,646	$37,963,476	$31,443,189

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

Total loan originations were $52.7 billion in 2020, compared to $38.0 billion in 2019 and $31.4 billion in 2018, an increase of 39% in 2020 and an increase of 21% in 2019. Loans originated increased during 2020 due to an increase in single family and business lending. In addition, for the year ended December 31, 2020, loan originations included $2.0 billion of PPP loans. The volume and type of loan originations depend on the level of interest rates, the demand for loans in our markets and other economic conditions.

The following table presents the weighted average LTVs for new loans secured by real estate originated during each of the periods indicated based on the appraised value at the time of origination. The single family loan category also includes loans originated and subsequently sold to investors.

LTVs for New Originations	Year Ended December 31, 2020	2019 [1]	2018 [1]
Single family	56%	58%	59%
Home equity lines of credit [2]	49%	52%	52%
Single family construction	58%	55%	57%
Multifamily	51%	52%	52%
Commercial real estate	46%	44%	49%
Multifamily/commercial construction	53%	56%	54%

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.
(2) Presented on a CLTV basis, including the first residential mortgage and a second lien, where applicable.

The weighted average LTVs in all categories have remained consistent and conservative over the periods and are indicative of the high quality of the Bank's underwriting standards.

The following table presents the weighted average credit scores for home loans originated during each of the periods indicated. The single family loan category also includes loans originated and subsequently sold to investors.

Weighted Average Credit Scores	Year Ended December 31, 2020	2019	2018
Single family	771	767	765
Home equity lines of credit	770	764	768

The following table presents purchase loans and refinance loans as a percentage of total single family mortgage originations (excluding HELOCs) for each of the periods indicated:

Purchase and Refinance Composition	Year Ended December 31, 2020	2019	2018
Purchase loans	34%	40%	53%
Refinance loans	66	60	47
Total	100%	100%	100%

Portfolio LTVs

We have approved a limited group of third-party appraisers to appraise all of the properties on which we make loans. Certain larger single family loans require two appraisals (with the lower value used for underwriting purposes). Our practice is to seldom exceed an 80% LTV on single family loans and an 80% CLTV on HELOCs. LTV ratios generally decline as the size of the loan increases. At origination, we generally do not exceed a 75% LTV on multifamily loans and a 70% LTV on commercial real estate loans.

The following table presents the weighted average LTVs based on the appraised value at the time of origination for our entire portfolio of loans secured by real estate at the dates indicated:

Portfolio LTVs	December 31, 2020	December 31, 2019 (1)
Single family (2)	57%	58%
Home equity lines of credit (3)	50%	51%
Single family construction	57%	57%
Multifamily (2)	51%	51%
Commercial real estate	46%	47%
Multifamily/commercial construction	53%	54%

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.
(2) Includes loans held for sale.
(3) Presented on a CLTV basis, including the first residential mortgage and a second lien, where applicable.

We either retain originated home loans in our loan portfolio or sell the loans in whole loan or loan participation arrangements, either in the secondary market or in loan securitizations. Loan sales are highly dependent upon market conditions. We have retained in our loan portfolio both ARMs and intermediate-fixed rate loans. As interest rates rise, payments on ARMs increase, which may be financially burdensome to some borrowers and could increase the risk of default. Subject to market conditions, our ARMs generally provide for a life cap that is 5% to 9% above the initial interest rate, thereby protecting borrowers from unlimited interest rate increases. As part of our standard underwriting guidelines, borrowers undergo a qualification process for an ARM loan assuming an interest rate that is higher than the initial rate.

Asset Quality

We place an asset on nonaccrual status when any installment of principal or interest is 90 days or more past due (except for single family loans that are well secured and in the process of collection) or when management determines the ultimate collection of all contractually due principal or interest to be unlikely. Restructured loans for which we grant payment or interest rate concessions because of a borrower's financial difficulties (TDRs) are placed on nonaccrual status until collectibility improves and a satisfactory payment history is established, generally by the receipt of at least six consecutive timely payments. Loan modifications made to borrowers impacted by COVID-19 are not considered TDRs. See additional discussion in "—COVID-19 Loan Modifications" below.

Our collection policies are highly focused with respect to both our portfolio loans and loans serviced for others. We have policies requiring prompt notification of delinquency and initiation of corrective measures. Our practice is to attempt to resolve problem assets quickly, including (as appropriate) collections, modifications, pursuit of foreclosure, or the sale of such problem assets as rapidly as possible at prices available in the prevailing market. For certain properties, we may make repairs and engage management companies in order to reach stabilized levels of occupancy prior to asset disposition. We believe our collection and foreclosure procedures comply with all applicable laws and regulations. We currently have a low level of loans in foreclosure. Recent legislation and regulations that provide relief for borrowers affected by COVID-19 contain limitations on foreclosure actions; we are complying with the limitations imposed under such legislation and regulations.

Nonaccrual and Other Information

The following table presents nonaccrual loans, other real estate owned, the ratio of nonperforming assets to total assets, accruing loans 90 days or more past due and restructured accruing loans:

($ in thousands)	December 31, 2020	2019 (1)	2018 (1)	2017 (1)	2016 (1)
Nonaccrual loans:					
Residential real estate					
Single family	$ 85,630	$ 59,013	$23,830	$16,897	$24,560
Home equity lines of credit	31,571	11,158	9,526	8,585	10,464
Total residential real estate	117,201	70,171	33,356	25,482	35,024
Income property					
Multifamily	—	—	2,056	4,651	4,516
Commercial real estate	2,320	—	266	286	306
Multifamily/commercial construction	57,843	68,856	—	—	—
Total income property	60,163	68,856	2,322	4,937	4,822
Business					
Other business	4,534	2,721	6,540	5,765	8,728
Other					
Other secured	23	23	—	—	—
Unsecured	2,211	1,410	4,247	1,472	446
Total other	2,234	1,433	4,247	1,472	446
Total nonaccrual loans	184,132	143,181	46,465	37,656	49,020
Other real estate owned	—	—	—	—	—
Total nonperforming assets	$184,132	$143,181	$46,465	$37,656	$49,020
Nonperforming assets to total assets	0.13%	0.12%	0.05%	0.04%	0.07%
Accruing loans 90 days or more past due	$ —	$ —	$ —	$ —	$ —
Restructured accruing loans	$ 11,253	$ 13,287	$11,514	$12,605	$14,278

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

See Note 4 in "Item 8. Financial Statements and Supplementary Data" for information related to interest income on nonaccrual loans for the years ended December 31, 2020, 2019 and 2018.

Of the loans on nonaccrual status, $58.0 million were current at December 31, 2020, compared to $125.0 million at December 31, 2019. Nonaccrual loans at December 31, 2020 include one lending relationship totaling $61.9 million, consisting of single family and non-owner occupied single family construction loans.

The future level of nonperforming assets depends upon a number of factors, including the performance of borrowers under loan terms, the impact of COVID-19 on borrowers and on global and local economies, the timing of the sale of future other real estate owned properties and economic conditions nationally and in our primary markets.

COVID-19 Loan Modifications

As discussed in Note 1 in "Item 8. Financial Statements and Supplementary Data," loan modifications to assist borrowers who are experiencing financial difficulties as a result of COVID-19 generally include deferring scheduled principal and/or interest payments for six months. For certain loans, the maturity of the loan may also be extended to allow for monthly payments to remain the same as they were pre-modification. Interest continues to accrue during the deferral period, and the deferred payments may be included in the borrower's final payment as a balloon payment, reamortized over the remaining maturity of the loan, or repaid over the extended term utilizing the pre-modification monthly payments, subject to the borrower's loan terms. Certain borrowers may receive additional relief beyond their initial modification period. Loan modifications made to borrowers impacted by COVID-19 are predominantly not reported as nonaccrual. In addition, the deferrals may result in delayed delinquency status for borrowers who would otherwise be past due.

The unpaid principal balance of such loan modifications (which are not classified as TDRs) totaled $1.3 billion and were 1.1% of total loans as of December 31, 2020. The following table presents a summary of these loan modifications as of December 31, 2020:

	COVID-19 Loan Modifications (1), (2), (3), (4), (5)				
($ in millions)	Unpaid Principal Balance	Deferred Interest (6)	LTV (7)	Average Loan Size	Number of Loans
Single family	$ 407	$ 5	63%	$ 1.2	354
Home equity lines of credit	11	—	55%	$ 0.4	25
Single family construction	2	—	75%	$ 2.0	1
Multifamily	291	1	53%	$ 5.6	52
Commercial real estate	297	1	50%	$ 5.5	54
Multifamily/commercial construction	35	—	35%	$ 8.9	4
Capital call lines of credit	—	—	n/a	$ —	—
Tax-exempt	150	—	n/a	$30.0	5
Other business	59	—	n/a	$ 1.5	39
Stock secured	—	—	n/a	$ —	—
Other secured	3	—	n/a	$ 0.3	11
Unsecured (8)	15	—	n/a	$ 0.1	153
Total	$1,270	$ 7			698

(1) COVID-19 loan modifications are not classified as TDRs.

(2) Includes 164 loans totaling $222 million that have completed their deferral period, but for which a regular payment is not yet due.

(3) Includes 269 loans totaling $504 million that received additional relief beyond their initial modification period.

(4) Excludes loans that have completed their deferral period and returned to a regular payment schedule or are no longer outstanding. As of December 31, 2020, $3.1 billion of loans have completed their deferral period or are no longer outstanding, and 99% of the outstanding loans were current.

(5) Loan modifications requested by borrowers that were in process but not yet completed as of December 31, 2020 totaled $53 million for initial relief, and $39 million for additional relief beyond the initial modification period.

(6) Represents interest payments not made during the deferral period through December 31, 2020.

(7) Weighted average LTV ratios for real estate secured loans are based on appraised value at the time of origination.

(8) Consists of household debt refinance loans.

Industry Information

The Bank does not have automobile loans or credit card loans, and does not lend to oil and gas companies, casinos, airlines or most other travel-related businesses. The Bank has limited exposure to the areas directly impacted by COVID-19, such as the retail, hotel and restaurant industries. The unpaid principal balance of these loans represented only 2.2% of total loans as of December 31, 2020. As of December 31, 2020, the Bank had modifications of these portfolios for $160 million, or 6% of such portfolios. The following table presents the unpaid principal balance, weighted average LTVs based on the appraised value at the time of origination, average loan size, number of loans, and personal guarantee percentage for loans to borrowers in retail, hotel and restaurant industries:

	December 31, 2020				
($ in millions)	Unpaid Principal Balance	LTV	Average Loan Size	Number of Loans	Personal Guarantee %
Retail	$1,831	49%	$2.7	703	77%
Hotel	416	48%	$6.6	65	72%
Restaurant [1]	219	49%	$1.1	210	93%
Total [2]	$2,466			978	

[1] Approximately 70% of loans to restaurants are real estate secured.

[2] Amounts in the table above exclude $43 million of loans to hotels and $132 million of loans to restaurants under the PPP.

Allowance for Credit Losses on Loans

Beginning January 1, 2020, upon adoption of ASC 326, the Bank estimates its ACL on loans using quantitative models, expert judgment, qualitative factors and individual assessments. The estimate incorporates individual loan level characteristics, macroeconomic forecasts and historical loss rates to determine expected credit losses over the life of the Bank's loans. Loans with similar risk characteristics within each class are pooled when developing the allowance, and loans that do not share similar risk characteristics are individually assessed. As of December 31, 2020, of the total ACL on loans of $635.0 million, the portion of the ACL on loans that was attributable to loans with similar risk characteristics was $584.5 million.

For a complete description of the accounting policies for determining the Bank's ACL on loans, see Note 1 and Note 4 in "Item 8. Financial Statements and Supplementary Data."

The following table presents an analysis of our ACL on loans, including provisions for credit losses, charge-offs and recoveries, as well as net charge-offs and allowance ratios:

($ in thousands)	At or for the Year Ended December 31, 2020	2019 [(1)]	2018 [(1)]	2017 [(1)]	2016 [(1)]
Allowance for credit losses on loans:					
Balance at beginning of period [(2)]	$ 494,429	$ 439,048	$ 365,932	$ 306,398	$ 261,058
Provision	142,977	61,690	76,092	60,181	47,192
Charge-offs:					
Single family	(1,755)	(1,018)	(239)	(1,176)	(1,694)
Home equity lines of credit	(381)	(539)	(497)	(848)	(272)
Single family construction	(679)	—	—	—	—
Multifamily	—	—	—	—	—
Commercial real estate	—	—	—	—	—
Multifamily/commercial construction	—	—	—	—	—
Capital call lines of credit	—	—	—	—	—
Tax-exempt	—	—	—	—	—
Other business	(47)	(3,389)	(1,748)	(616)	(93)
PPP	—	—	—	—	—
Stock secured	—	—	—	—	—
Other secured	—	(1,229)	—	—	—
Unsecured	(1,149)	(866)	(1,074)	(346)	(57)
Total charge-offs	(4,011)	(7,041)	(3,558)	(2,986)	(2,116)
Recoveries:					
Single family	56	237	77	30	15
Home equity lines of credit	459	1,654	110	2,167	103
Single family construction	679	—	—	—	—
Multifamily	—	—	—	—	—
Commercial real estate	—	—	—	—	—
Multifamily/commercial construction	—	—	—	—	—
Capital call lines of credit	—	—	—	—	—
Tax-exempt	—	—	—	—	—
Other business	106	91	265	47	117
PPP	—	—	—	—	—
Stock secured	—	—	—	—	—
Other secured	—	—	—	—	—
Unsecured	324	425	130	95	29
Total recoveries	1,624	2,407	582	2,339	264
Net loan charge-offs	(2,387)	(4,634)	(2,976)	(647)	(1,852)
Balance at end of period	$ 635,019	$ 496,104	$ 439,048	$ 365,932	$ 306,398
Average total loans for the period	$100,258,082	$82,138,263	$68,934,629	$56,864,796	$47,508,150
Total loans at period end	$112,566,265	$90,796,831	$75,865,282	$62,840,215	$52,008,317
Total nonaccrual loans	$ 184,132	$ 143,181	$ 46,465	$ 37,656	$ 49,020
Ratios:					
Net charge-offs to:					
Average total loans	0.00%	0.01%	0.00%	0.00%	0.00%
Allowance for credit losses on loans to:					
Total loans	0.56%	0.55%	0.58%	0.58%	0.59%
Nonaccrual loans	344.9%	346.5%	944.9%	971.8%	625.0%

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

(2) For the year ended December 31, 2020, the beginning balance represents the ACL on loans after the transition adjustments from the adoption of CECL.

The following tables present management's historical allocation of the ACL on loans by loan class at the dates indicated:

	December 31,					
	2020		2019 [(1)]		2018 [(1)]	
($ in thousands)	Amount	% of Loan Portfolio	Amount	% of Loan Portfolio	Amount	% of Loan Portfolio
Allocation of allowance for credit losses on loans:						
Single family	$137,117	54%	$ 76,225	53%	$ 65,402	50%
Home equity lines of credit	8,039	2	13,835	2	12,887	3
Single family construction	3,681	1	5,958	1	3,073	1
Multifamily	120,994	12	105,120	14	79,640	14
Commercial real estate	71,430	7	60,829	8	54,604	9
Multifamily/commercial construction	36,059	2	15,982	2	15,484	2
Capital call lines of credit	89,983	7	80,030	6	63,227	7
Tax-exempt	39,752	3	32,828	4	42,111	4
Other business	68,071	3	61,885	3	62,253	4
PPP	—	2	—	—	—	—
Stock secured	—	2	—	2	8,724	2
Other secured	8,240	2	8,277	2	8,301	1
Unsecured	51,653	3	35,135	3	23,342	3
Total	$635,019	100%	$496,104	100%	$439,048	100%

	December 31,			
	2017 [(1)]		2016 [(1)]	
($ in thousands)	Amount	% of Loan Portfolio	Amount	% of Loan Portfolio
Allocation of allowance for credit losses on loans:				
Single family	$ 52,011	50%	$ 40,787	50%
Home equity lines of credit	13,046	4	12,083	5
Single family construction	2,758	1	2,112	1
Multifamily	67,241	14	53,271	13
Commercial real estate	51,962	10	48,148	11
Multifamily/commercial construction	11,183	2	9,657	2
Capital call lines of credit	32,070	4	22,171	3
Tax-exempt	38,616	5	37,721	5
Other business	67,270	4	58,982	5
PPP	—	—	—	—
Stock secured	6,596	2	5,102	2
Other secured	7,850	1	5,822	1
Unsecured	15,329	3	10,542	2
Total	$365,932	100%	$306,398	100%

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

Allowance for Credit Losses on Unfunded Loan Commitments

The Bank also records an ACL on unfunded loan commitments, which is based on the same assumptions as funded loans and also considers the probability of funding. Beginning January 1, 2020, upon adoption of ASC 326, the loss rate represents expected credit losses over the life of the loans.

For a complete description of the accounting policies for determining the Bank's ACL on unfunded loan commitments, see Note 1 and Note 4 in "Item 8. Financial Statements and Supplementary Data."

The following table presents the changes in the ACL on unfunded loan commitments:

	At or for the Year Ended December 31,				
($ in thousands)	**2020**	**2019**	**2018**	**2017**	**2016**
Balance at beginning of period [1]	$15,697	$13,217	$14,200	$12,500	$12,375
Provision (reversal of provision) [2]	11,881	(1,188)	(983)	1,700	125
Charge-offs	—	—	—	—	—
Recoveries	—	—	—	—	—
Balance at end of period	$27,578	$12,029	$13,217	$14,200	$12,500

(1) For the year ended December 31, 2020, the beginning balance represents the ACL on unfunded loan commitments after the transition adjustments from the adoption of CECL.

(2) The provision for unfunded loan commitments is included in the provision for credit losses for 2020. For 2019 and prior periods, the provision for unfunded loan commitments is included in other noninterest expense.

Mortgage Banking Activities

In addition to originating loans for our own portfolio, we conduct mortgage banking activities. We have sold whole loans and participations in loans in the secondary market and in loan securitizations. We originate, on a direct flow basis, single family mortgages that are priced and underwritten to conform to previously agreed-upon criteria prior to loan funding and are delivered to the investor shortly after funding. We have also identified secondary market sources that seek to acquire loans of the type we originate for our loan portfolio.

The following table presents information on single family loans originated, loans sold and gain on sale of loans:

($ in thousands)	Year Ended December 31, 2020	2019	2018
Single family loans originated	$23,985,959	$16,405,784	$10,784,654
Loans sold:			
Flow sales:			
Agency	$ 232,912	$ 85,945	$ 42,081
Non-agency	31,870	50,983	172,077
Total flow sales	264,782	136,928	214,158
Bulk sales:			
Non-agency	673,401	152,119	773,041
Securitizations	300,116	—	251,931
Total loans sold	$ 1,238,299	$ 289,047	$ 1,239,130
Gain on sale of loans:			
Amount [(1)]	$ 16,987	$ 535	$ 5,616
Gain as a percentage of loans sold [(1)]	1.37%	0.19%	0.45%

(1) The gain for the year ended December 31, 2020 included $10.3 million related to realized discounts on previously purchased loans when these loans were sold. Excluding these discounts of $10.3 million, the gain as a percentage of loans sold was 0.54% for the year ended December 31, 2020.

The level of loan originations, loan sales and gain on loan sales depend upon market conditions and the interest rate environment, as well as our pricing and ALM strategies. The gain on sale of loans in 2020 included $10.3 million related to realized discounts on previously purchased loans when these loans were sold. In addition, the increase in gain on sale of loans in 2020 was the result of a higher volume of loans sold and higher margins, partially offset by costs associated with our first sponsored securitization since 2002. The level of future loan originations, loan sales and gain on loan sales will depend on overall credit availability, the interest rate environment, the strength of the general economy, local real estate markets and the housing industry, and conditions in the secondary loan sale market. These factors have been, and will likely continue to be, affected by COVID-19.

In connection with loan sales, we retain all the loan servicing in order to maintain the primary contact with our clients and to generate recurring fee income. We retain MSRs on loans that we sell to institutional investors and governmental agencies. We generally do not provide any financial or performance guarantees to the investors who purchase our loans and the purchasers do not have any recourse to the Bank on the loans that we have sold. In accordance with secondary market standards, we make customary representations and warranties related to the origination and documentation of sold loans. We have not been required to make any significant loan repurchases or incur any other significant costs subsequent to the sale of loans for any breach of these customary representations and warranties.

As of December 31, 2020, the Bank has an obligation to reimburse Freddie Mac for losses up to $30.2 million, or 12% of the multifamily loans securitized in 2018. As of December 31, 2020, the weighted average LTV of those loans was 55% based on the appraised value at the time of origination. The liability for estimated losses related to this reimbursement obligation was less than $100,000 at December 31, 2020, and the Bank has experienced no cumulative losses on the loans within this securitization through December 31, 2020. The remaining unpaid principal balance of multifamily loans securitized was $92.6 million at December 31, 2020, compared to $173.1 million at December 31, 2019 and $251.9 million at the time of securitization in 2018.

During 2020, the Bank sold $300.1 million of originated single family loans through a securitization. These loans are included in the Bank's servicing portfolio, since the Bank performs servicing of the loans. The Bank retained a 5% interest in the investment securities issued in the securitization, which consist of senior and subordinated tranches and an interest-only strip. The carrying value of the retained securities as of December 31, 2020 was $13.5 million. The remaining unpaid principal balance of single family loans securitized was $256.5 million at December 31, 2020.

The following table presents information on loans serviced for others and net loan servicing fees:

	At or for the Year Ended December 31,		
($ in thousands)	**2020**	**2019**	**2018**
Loans serviced for others	$7,094,221	$9,297,972	$11,573,326
Loan servicing fees, net	$ (1,401)	$ 11,348	$ 13,302

Mortgage loans serviced for investors decreased to $7.1 billion at December 31, 2020, from $9.3 billion at December 31, 2019, due to repayments in the servicing portfolio exceeding loan sales over the past twelve months. MSRs are recognized as separate assets on our balance sheet and are reported at the lower of amortized cost or fair value. At December 31, 2020, MSRs were $26.0 million (37 bps of loans serviced), compared to $41.7 million (45 bps of loans serviced) at December 31, 2019.

Our loan origination policies and consistent underwriting standards have resulted in a low historical loan loss experience on single family loans sold in the secondary market. Since our inception in 1985, we have experienced cumulative net loan losses of only $9.6 million on single family loans sold. At December 31, 2020, single family loans serviced for investors that are 90 days or more past due were $9.8 million, or 14 bps of such loans serviced.

For mortgage loans in our servicing portfolio, borrowers who are experiencing financial difficulty as a result of COVID-19 may request a modification, such as payment deferrals. Modifications generally include deferring scheduled principal and/or interest payments for six months. As of December 31, 2020, modifications in our mortgage servicing portfolio totaled $53.5 million (less than 1% of loans serviced). For the majority of the Bank's mortgage servicing portfolio, the Bank will continue to advance principal and interest payments to investors in accordance with the terms of the underlying servicing agreements.

Deposit Gathering

We obtain funds from depositors by offering consumer and business checking, money market and passbook accounts, and term CDs. Our accounts are federally insured by the FDIC up to the maximum limit. At December 31, 2020, our total deposits were $114.9 billion, a 28% increase from $90.1 billion at December 31, 2019, as we continued to expand relationships with existing clients and acquire new deposit clients, both business and consumer. The following table presents the balances and average contractual cost of deposits:

	December 31,			
	2020		2019	
($ in thousands)	Amount	Weighted Average Cost	Amount	Weighted Average Cost
Checking	$ 76,884,333	0.01%	$52,821,124	0.05%
Money market checking	16,778,884	0.18%	12,790,707	1.09%
Money market savings and passbooks	12,584,522	0.18%	10,586,355	0.85%
CDs	8,681,061	0.59%	13,935,060	1.94%
Total	$114,928,800	0.10%	$90,133,246	0.58%

Core deposits, which include checking accounts, money market accounts, savings accounts and CDs (excluding CDs greater than $250,000 and all brokered deposits), provide a stable source of low cost funding. Core deposits totaled $109.3 billion and $81.4 billion at December 31, 2020 and 2019, respectively, and represented 95% of total deposits at December 31, 2020, compared to 90% at December 31, 2019. Total deposits included $1.1 billion of brokered deposits at December 31, 2020, compared to $2.9 billion at December 31, 2019. The weighted average contractual rate paid on brokered deposits was 0.07% and 1.89% at December 31, 2020 and 2019, respectively.

Our deposit base consists of: (1) Preferred Banking deposits, which are placed by clients who enter into deposit relationships directly with a relationship manager, business banker, preferred banker or wealth management professional; (2) deposits from Preferred Banking Offices, which are retail locations that gather deposits and service all of our clients; (3) wealth management sweep deposits, which primarily consist of deposits swept from clients' brokerage or other investment accounts; and (4) other deposits, which primarily consist of brokered deposits, municipal deposits, and other deposits that are not attributable to any specific deposit location.

The following table presents deposits by channel, and by region in which the accounts are domiciled:

($ in thousands)	December 31, 2020	December 31, 2019
Preferred Banking:		
Northern California	$ 29,398,248	$23,110,274
Metropolitan New York	17,844,828	14,432,673
Southern California	10,539,845	6,972,677
Boston	10,968,464	7,213,012
Subtotal	68,751,385	51,728,636
Preferred Banking Offices:		
Northern California	20,693,568	16,710,704
Metropolitan New York	6,988,064	5,179,643
Southern California	5,115,241	4,170,492
Boston	2,209,417	1,752,376
Subtotal	35,006,290	27,813,215
Wealth management sweep	9,574,527	5,579,478
Other	1,596,598	5,011,917
Total deposits	$114,928,800	$90,133,246

The following table presents business and consumer deposits:

($ in thousands)	December 31, 2020	December 31, 2019
Business deposits:		
Checking	$ 50,389,145	$36,383,549
Money market checking	8,743,423	7,930,337
Money market savings	4,501,395	4,585,428
CDs	1,671,973	2,014,152
Subtotal	65,305,936	50,913,466
Percent of total deposits	57%	56%
Consumer deposits:		
Checking	26,495,188	16,437,575
Money market checking	8,035,461	4,860,370
Money market savings and passbooks	8,083,127	6,000,927
CDs	7,009,088	11,920,908
Subtotal	49,622,864	39,219,780
Percent of total deposits	43%	44%
Total deposits	$114,928,800	$90,133,246

We fund a portion of our assets with CDs that have balances greater than $250,000. At December 31, 2020 and 2019, our CDs having balances greater than $250,000 totaled $4.5 billion and $5.8 billion, respectively. The following table presents the maturities of our CDs greater than $250,000:

($ in thousands)	December 31, 2020
Remaining maturity:	
Three months or less	$2,124,493
Over three through six months	1,469,213
Over six through twelve months	581,150
Over twelve months	360,893
Total	$4,535,749
Percent of total deposits	4%

At December 31, 2020 and 2019, the weighted average contractual rate paid on CDs was 0.59% and 1.94%, respectively, and the weighted average remaining maturity of CDs was 5.7 months and 5.4 months at the same respective period ends. The contractual maturities and weighted average contractual rate of our CDs were as follows:

	December 31, 2020	
($ in thousands)	Amount	Rate
CDs maturing in:		
2021	$7,685,816	0.49%
2022	657,777	1.01%
2023	120,835	1.98%
2024	136,876	2.54%
2025	69,319	1.83%
2026 and thereafter	10,438	0.90%
Total	$8,681,061	0.59%

Other Funding

Other sources of funding include federal funds purchased, short-term and long-term FHLB advances, and unsecured, term, senior notes and subordinated notes. Short-term borrowings, which include federal funds purchased and short-term FHLB advances, have an original maturity of one year or less. Long-term debt, which includes long-term FHLB advances, senior notes and subordinated notes, has an original maturity in excess of one year.

As of December 31, 2020, we had no short-term borrowings. The level of short-term borrowings varies based on funding needs.

FHLB Advances

FHLB advances may be either adjustable-rate in nature or fixed for a specific term. Our long-term, laddered maturity, fixed-rate FHLB advances as of December 31, 2020 were $11.8 billion. The weighted average remaining maturity of long-term FHLB advances was 1.7 years at December 31, 2020. The following table presents the contractual maturities and weighted average contractual rates of our long-term FHLB advances:

($ in thousands)	December 31, 2020 Amount	Rate
FHLB advances maturing in:		
2021	$ 5,155,000	1.78%
2022	2,900,000	1.55%
2023	1,225,000	0.77%
2024	1,275,000	1.26%
2025	800,000	0.88%
2026 and thereafter	400,000	0.65%
Total	$11,755,000	1.46%

For the year ended December 31, 2020, prepayment penalties for FHLB advances, which are included in other noninterest expense, were $26.8 million. There were no prepayment penalties for the years ended December 31, 2019 or 2018.

Senior Notes and Subordinated Notes

The following table presents the principal balances, carrying values, coupon rates, optional redemption dates and maturity dates of the Bank's unsecured, term, fixed-rate senior notes, fixed-to-floating rate senior notes, and fixed-rate subordinated notes as of December 31, 2020. In February 2020, the Bank completed an underwritten public offering of $500.0 million of 1.912% unsecured senior fixed-to-floating rate notes due 2024.

	December 31, 2020				
($ in thousands)	Principal Balance	Carrying Value [1]	Rate	Optional Redemption Date [2]	Maturity Date [3]
Senior notes:					
Fixed-rate, issued June 2017	$500,000	$498,639	2.500%	May 6, 2022	June 6, 2022
Fixed-to-floating rate, issued February 2020	$500,000	$497,506	1.912%[4]	February 12, 2023	February 12, 2024
Subordinated notes:					
Fixed-rate, issued August 2016	$400,000	$388,279	4.375%	February 1, 2046	August 1, 2046
Fixed-rate, issued February 2017	$400,000	$390,034	4.625%	August 13, 2046	February 13, 2047

(1) Principal balance, net of unamortized issuance discounts and deferred issuance costs.
(2) The Bank has the option to redeem these notes prior to their maturity at the dates specified.
(3) Unless previously redeemed, the notes will mature at the dates specified.
(4) Interest is paid at a fixed rate of 1.912% per annum from February 12, 2020 through February 12, 2023, and is paid based on a floating rate of compounded SOFR plus 0.620% beginning February 12, 2023.

Available Borrowing Capacity

Our unused, available borrowing capacity at the FHLB and the Federal Reserve Bank discount window at December 31, 2020 was $34.8 billion and $4.6 billion, respectively. This available borrowing capacity is supported by pledged loans at the FHLB and investment securities at the Federal Reserve Bank. See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk—Interest Rate Risk Management" for additional information regarding our funding practices.

Commitments and Contractual Obligations

In the ordinary course of business, we enter into transactions that involve financial instruments with off-balance sheet risks, to meet the financing needs of our clients. These financial instruments include conditional commitments to originate loans, commitments to disburse additional funds on existing loans and lines of credit, and commitments issued under standby letters of credit. Such instruments involve elements of credit risk and interest rate risk. Since commitments may expire without being drawn, the total commitment amounts do not necessarily represent future cash requirements. See Note 16 in "Item 8. Financial Statements and Supplementary Data" for additional information regarding the Bank's lending commitments.

In addition to the commitments described above, the Bank enters into other contractual obligations in the ordinary course of business. Certain of these obligations, such as deposits, FHLB advances, senior notes, subordinated notes, unfunded commitments on tax credit investments and other investments, and lease liabilities are recorded as liabilities in the consolidated financial statements. The Bank also has agreements to purchase goods or services, which are off-balance sheet obligations.

As discussed in Note 16 in "Item 8. Financial Statements and Supplementary Data," in connection with the securitization of loans with Freddie Mac, the Bank has an obligation to reimburse Freddie Mac for losses up to $30.2 million, or 12% of the multifamily loans securitized. At December 31, 2020, the liability for estimated losses related to this reimbursement obligation was less than $100,000.

The following table presents information regarding our significant contractual obligations at December 31, 2020, and expected settlement or maturity dates for these obligations. Deposit obligations categorized as "indeterminate maturity" include noninterest-bearing checking accounts, interest-bearing checking accounts, money market checking accounts, money market savings accounts and passbook accounts.

	Contractual Payments by Period					
($ in thousands)	Less Than 1 Year	1 to 3 Years	>3 to 5 Years	> 5 Years	Indeterminate Maturity	Total
Deposits	$7,685,816	$ 778,612	$ 206,195	$ 10,438	$106,247,739	$114,928,800
FHLB advances	$5,155,000	$4,125,000	$2,075,000	$400,000	$ —	$ 11,755,000
Senior notes	$ —	$ 500,000	$ 500,000	$ —	$ —	$ 1,000,000
Subordinated notes	$ —	$ —	$ —	$800,000	$ —	$ 800,000
Unfunded commitments—tax credit investments	$ 163,928	$ 155,039	$ 24,429	$ 56,269	$ —	$ 399,665
Unfunded commitments—other investments	$ 6,663	$ 6,672	$ 2,200	$ 1,323	$ —	$ 16,858
Lease liabilities	$ 137,216	$ 262,954	$ 233,334	$562,079	$ —	$ 1,195,583
Purchase obligations	$ 57,868	$ 66,170	$ 18,396	$ 12,876	$ —	$ 155,310

See Notes 7, 9, 12 and 13 in "Item 8. Financial Statements and Supplementary Data" for additional information regarding the contractual obligations for tax credit investments, leases, deposits and borrowings presented in the table above.

Liquidity

Liquidity refers to our capacity to meet our cash and collateral obligations and to manage both expected and unexpected cash flows without adversely impacting the operations or financial health of the Bank. Sources of liquidity include both unencumbered assets, such as marketable loans and securities, and traditional forms of funding, such as deposits, borrowings and equity.

Liquidity Risk Management

We engage in various activities to manage our liquidity risk, including maintaining a diversified set of funding sources and holding sufficient liquid assets to meet our cash flow and funding needs. Liquidity and funding-related risk policies and limits are established within our Liquidity Risk Management Policy, which is approved by the Board at least annually. Liquidity risk is actively monitored and managed by the Treasury department, CFO and senior management through the Bank Enterprise Risk Management Committee, with independent oversight provided by the Board through the Directors' Enterprise Risk Management Committee. In addition, we maintain a contingency funding plan and perform scenario-based stress-testing to ensure resilience in case of expected and unexpected future events.

Sources of Liquidity

At December 31, 2020, our investment securities portfolio of $18.5 billion and cash and cash equivalents of $5.1 billion collectively comprised 17% of total assets. At December 31, 2020, assets that are considered HQLA, including eligible cash, were $18.1 billion. HQLA include $8.0 billion of municipal securities. Effective in March 2020, the Federal Reserve reduced the reserve requirement ratios to zero percent, which eliminated the reserve requirement and resulted in an increase in HQLA eligible cash.

At December 31, 2020, we had $34.8 billion of unused, available borrowing capacity at the FHLB supported by pledged loans. In addition, we had $4.6 billion of unused, available borrowing capacity at the Federal Reserve Bank discount window collateralized by pledged investment securities. This unused, available borrowing capacity at the FHLB and the Federal Reserve Bank discount window equaled 28% of total assets.

We generally use short-term borrowings, such as federal funds purchased and short-term FHLB advances, to fund short-term assets, such as loans that have been committed for sale and floating rate investments, or to bridge temporary funding needs, such as those resulting from client investment activity or seasonal deposit fluctuations.

We primarily sell single family mortgage loans in the secondary market directly to a variety of investors. We originate single family mortgages in part to attract new clients for other banking and wealth management services. Selling mortgages allows us to originate more loans without growing our balance sheet loan portfolio and creating the need for additional funding and capital. All loans sold are performing loans and meet all underwriting standards required by us and the secondary market. We sold $1.2 billion of loans during 2020, which included $300.1 million of originated single family loans sold through a securitization.

We may also, from time to time, issue additional common stock, preferred stock, senior or subordinated notes or other forms of capital or debt instruments, depending on market conditions and subject to any required regulatory approvals. Management believes that the sources of available liquidity are well-diversified and adequate to meet all reasonably foreseeable short-term and intermediate-term demands.

During 2020, the primary sources and uses of funds were as follows:

- Loan originations and purchases, net of sales and repayments, were $22.6 billion;
- Deposits increased by $24.8 billion;
- FHLB advances decreased by $795.0 million;
- Federal funds purchased decreased by $450.0 million;
- 4,225,000 shares of common stock were issued in underwritten public offerings, with net proceeds of approximately $516.0 million;
- 1.912% unsecured senior fixed-to-floating rate notes were issued, with net proceeds of $496.5 million;
- 4.125% Noncumulative Perpetual Series K Preferred Stock were issued, with net proceeds of $492.1 million; and
- All of the outstanding shares of our 5.70% Noncumulative Perpetual Series F Preferred Stock were redeemed, which totaled $100.0 million.

Capital Resources

Effective beginning the first quarter of 2020, the Bank elected to adopt the CECL Capital Rule, which allows the Bank to delay the estimated impact of CECL on its regulatory capital over a five-year transition period ending December 31, 2024.

During the second quarter of 2020, the Simplifications Rule that was issued in July 2019 became effective. The Simplifications Rule requires the Bank to assign a 250% risk weight to MSRs or temporary difference DTAs not deducted from CET1 capital. Additionally, beginning in April 2020, the Bank became a lender under the PPP. PPP loans are 100% guaranteed by the SBA and receive a 0% risk weight.

The following table presents the Bank's components of regulatory capital, average assets, and RWAs, as defined by regulatory capital rules:

($ in thousands)	December 31, 2020	December 31, 2019
Regulatory Capital Components		
Shareholders' equity	$ 11,750,646	$ 9,851,107
CECL Capital Rule retained earnings adjustments [(1)]	43,353	—
CET1 capital adjustments and deductions:		
Preferred stock	(1,545,000)	(1,145,000)
Goodwill and other intangible assets, net of deferred taxes	(203,997)	(216,742)
DTAs that arise from net operating loss and tax credit carryforwards, net of DTLs	(126,754)	(113,042)
Accumulated other comprehensive income	(23,378)	(5,131)
CET1 capital	9,894,870	8,371,192
Preferred stock	1,545,000	1,145,000
Additional Tier 1 capital	1,545,000	1,145,000
Tier 1 capital	11,439,870	9,516,192
Tier 2 capital instruments—subordinated notes [(2)]	778,313	777,885
Qualifying ACL [(3)]	669,499	508,132
CECL Capital Rule ACL adjustments [(1)]	(45,338)	—
Tier 2 capital	1,402,474	1,286,017
Total risk-based capital	$ 12,842,344	$ 10,802,209
Assets		
Average assets	$140,449,930	$113,403,507
CECL Capital Rule average assets adjustments [(1)]	43,353	—
Average assets after adjustments	$140,493,283	$113,403,507
RWAs	$102,326,452	$ 84,885,943
CECL Capital Rule DTAs adjustments [(1)]	(4,963)	—
RWAs after adjustments	$102,321,489	$ 84,885,943

(1) In accordance with the CECL Capital Rule, the Bank elected to delay the estimated impact of CECL on its regulatory capital, average assets and RWAs over a five-year transition period ending December 31, 2024. Amounts as of December 31, 2020 have been adjusted to exclude the following impacts attributed to the adoption of CECL: decreases in retained earnings and average assets, increases in ACL on loans, held-to-maturity debt securities and unfunded loan commitments, and increases in RWAs.

(2) Subordinated notes mature in 2046 and 2047.

(3) Includes the ACL on loans, held-to-maturity debt securities and unfunded loan commitments.

At December 31, 2020 and 2019, the Bank's noncumulative perpetual preferred stock was 14% and 12% of Tier 1 capital, respectively.

During 2020, the Bank sold 4,225,000 shares of common stock in an underwriting offering, which added $516.0 million to common equity. In addition, the Bank issued $500.0 million of 4.125% Noncumulative Perpetual Series K Preferred Stock, which qualifies as Tier 1 capital and redeemed all of the outstanding shares of its 5.70% Noncumulative Perpetual Series F Preferred Stock, which totaled $100.0 million.

In February 2021, the Bank issued $747.5 million of 4.250% Noncumulative Perpetual Series L Preferred Stock, which qualifies as Tier 1 capital. On February 8, 2021, the Bank announced that it will redeem all of the outstanding shares of its 5.50% Noncumulative Perpetual Series G Preferred Stock on March 30, 2021, which total $150.0 million.

A "capital conservation buffer" of 2.5% of RWAs is also required under the Basel III Capital Rules. The capital conservation buffer is designed to absorb losses during periods of economic stress. Banking institutions with a CET1 capital ratio above the minimum requirement but below the capital conservation buffer will face constraints on dividends, equity repurchases and compensation based on the amount of the shortfall and "eligible retained income" (that is, the greater of net income for the four calendar quarters preceding the current calendar quarter, net of any distributions and associated tax effects not already reflected in net income, and the average of net income over the preceding four quarters).

Our capital ratios exceeded all applicable regulatory requirements at December 31, 2020 for well-capitalized institutions, and our capital conservation buffer exceeded the minimum requirement of 2.5%. The following table presents our capital ratios and regulatory requirements:

			Regulatory Requirements		
	December 31,				
Capital Ratios	2020 [1]	2019	Well-Capitalized Ratio	Minimum Capital Ratio	Minimum Capital Conservation Buffer [2]
Tier 1 leverage ratio (Tier 1 capital to average assets)	8.14%	8.39%	5.00%	4.00%	—%
CET1 capital to RWAs	9.67%	9.86%	6.50%	4.50%	2.50%
Tier 1 capital to RWAs	11.18%	11.21%	8.00%	6.00%	2.50%
Total capital to RWAs	12.55%	12.73%	10.00%	8.00%	2.50%

(1) As of December 31, 2020, the Bank's election of regulatory capital relief under the CECL Capital Rule resulted in a 3 bps increase in the Tier 1 leverage ratio, a 4 bps increase in the CET1 capital ratio and the Tier 1 capital ratio, and no impact on the Total capital ratio.

(2) As of December 31, 2020, our capital conservation buffer was 4.55%, which exceeded the minimum requirement of 2.5% required to be held by banking institutions.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Interest Rate Risk Management

We seek to measure and manage the potential impact of changes in interest rates on our net interest income and net interest margin, known as interest rate risk. Interest rate risk is primarily driven by assets and liabilities that mature or reset at different times, on a different basis, in unequal amounts, or which may have different embedded optionality. The Bank's Board approves policies and limits governing the management of interest rate risk at least annually. Our ALM and Investment Committees further establish risk management guidelines and procedures within the broader policies and limits established by the Bank's Board. Compliance with these policies and limits is reported to the Bank's Board on an ongoing basis and decisions on the management of interest rate risk are made as needed. We utilize a variety of interest rate risk management tools to evaluate our interest rate risk.

We may manage interest rate risk by altering the mix of loans, such as adjustable-rate loans, hybrid ARMs, or fixed-rate loans, which we originate or elect to retain. We may also change the composition and characteristics of our investment portfolio. We may also vary the degree to which we utilize different funding sources, such as checking and savings accounts, CDs with various maturity terms, laddered maturity fixed-rate FHLB advances and unsecured, term, fixed-rate senior notes, fixed-to-floating rate senior notes and fixed-rate subordinated notes. We may also utilize overnight and short-term borrowings to fund certain short-term assets, such as loans that have been committed for sale and floating rate investments, or to bridge temporary funding needs, such as those resulting from client investment activity or seasonal deposit fluctuations. As an active and ongoing part of our ALM strategy, we may sell long-term fixed-rate single family mortgage loans into the secondary market through ongoing, or "flow," transactions. We may also sell portions of our single family hybrid ARM and fixed-rate loans in bulk loan transactions or securitizations. We sold $1.2 billion of loans in 2020.

In addition to the mix and pricing of interest-earning assets and interest-bearing liabilities, our net interest income and net interest margin may also be affected by factors such as changes in federal, state or local regulations, competition, market conditions, levels of loan sales and repayment rates, levels of cash held on the balance sheet, overall growth of assets and liabilities, general interest rate trends, including movements in interest rates and the shape of the yield curve, basis risk, level and cost of FHLB advances, market rates of new capital or debt offerings and any nonaccrual loans. Our net interest margin may also be affected by our overall business model or strategy. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Business and Financial Statements—Interest Rates" for discussion of the FOMC's actions in response to COVID-19.

There is also interest rate risk inherent in the estimated fair value of our MSRs. Movements in interest rates affect the servicing fees from MSRs, which are recorded in noninterest income as opposed to net interest income. In a decreasing interest rate environment, loans in the servicing portfolio may repay more rapidly, which reduces current and future servicing income. Inversely, in an increasing interest rate environment, repayments may decrease, which increases expected future servicing income.

Balance Sheet Overview

Our net interest income and net interest margin may be affected by the mix of interest-earning assets and interest-bearing liabilities. The Bank has earning assets with reset periods or maturity of less than one year totaling $35.8 billion, or 26% of total earning assets at December 31, 2020. Of these earning assets, the Bank has loans, including loans held for sale, which are currently adjustable and reprice with indices or mature within one year totaling $30.3 billion, or 27% of the total loan portfolio at December 31, 2020. The loan portfolio that reprices at least quarterly to market rate indices, such as Prime or LIBOR, totaled $21.0 billion, or 19% of the total loan portfolio at December 31, 2020. The loan portfolio with lagging indices, such as COFI and the CMT, totaled $5.5 billion, or 5% of the total loan portfolio at December 31, 2020. Additionally, the loan portfolio that

either (1) matures within one year; (2) is within one year of adjusting from the initial fixed-rate period; or (3) is committed for sale totaled $3.8 billion, or 3% of the total loan portfolio at December 31, 2020. In addition, at December 31, 2020, the Bank held $4.6 billion in cash and $966.8 million in investment securities (collectively, 24% of total cash and investment securities), that reprice to market rates at least quarterly or are currently projected to be called or mature in less than one year.

Total checking deposits were $76.9 billion, or 67% of total deposits at December 31, 2020. Total checking deposits include both noninterest-bearing checking accounts and interest-bearing checking accounts, which currently pay a nominal rate of interest, but exclude money market checking accounts. We do not expect the rate paid on interest-bearing checking deposits to fluctuate much with changes in overall interest rates, consistent with our history. The rates paid on money market savings, money market checking and passbook deposit accounts generally move directionally with changes in short-term prevailing interest rates and may be subject to competitive pricing pressure. Money market savings, money market checking and passbook deposit accounts together totaled $29.4 billion, or 25% of total deposits at December 31, 2020. CDs were $8.7 billion, or 8% of total deposits and had a weighted average remaining maturity of 5.7 months at December 31, 2020.

We utilize long-term FHLB advances as a source of fixed-rate, term funding to help manage our overall interest rate risk. Such advances totaled $11.8 billion at December 31, 2020 and had a weighted average remaining maturity of 1.7 years. In addition, the Bank has also issued unsecured, term, fixed-rate senior notes, unsecured, term, fixed-to-floating rate senior notes and unsecured, term, fixed-rate subordinated notes. At December 31, 2020, the senior notes had a carrying value of $996.1 million and mature in June 2022 and February 2024. Also, at December 31, 2020, the subordinated notes had a carrying value of $778.3 million and mature in August 2046 and February 2047.

Net Interest Income Simulation

In addition to evaluating our current balance sheet, we also perform simulations to measure and evaluate our potential net interest income exposure to changes in interest rates. Based on the results of such analyses, we may make changes to our asset/liability mix, to draw down short or long-term advances with the FHLB, to issue long-term senior notes or long-term subordinated notes, to sell or securitize loans, to enter into interest rate exchange agreements or to otherwise seek to better protect ourselves against potential adverse effects from changes in interest rates.

We use a simulation model to measure and evaluate our net interest income risk exposure. We run various hypothetical interest rate scenarios at least quarterly and compare these results against a scenario with no changes in interest rates. Our net interest income simulation model incorporates various assumptions, which management believes to be reasonable but which may have a significant impact on results, such as: (1) the timing and magnitude of changes in interest rates, (2) the yield curve evolution and shape, (3) repricing and maturing characteristics, other than contractual, for market rate sensitive instruments, (4) non-interest bearing checking deposit balance behavior and the possibility of shifts in preference between interest-bearing and non-interest bearing products, (5) varying sensitivities of financial instruments due to differing underlying rate indices, (6) loan prepayment speeds for different interest rate scenarios, (7) the effect of interest rate floors, periodic loan caps and lifetime loan caps, (8) the levels of cash held on our balance sheet and (9) overall growth, product mix and repayment rates of assets and liabilities. Because of limitations inherent in any approach used to measure interest rate risk, simulation results are not intended as a precise forecast of the actual effect of a change in market interest rates on our results, but rather as a means to better understand the direction, timing and magnitude of interest rate risk exposure and plan and execute the appropriate ALM strategies.

Potential changes to our net interest income in hypothetical rising and declining rate scenarios, measured over a two-year period beginning December 31, 2020, are presented in the following table. The projections assume both (a) instantaneous parallel shifts upward of 100 and 200 bps and instantaneous parallel shifts downward of the yield curve of 100 bps occurring immediately ("Shock") and (b) gradual parallel shifts upward and downward of the yield curve in even increments over the first twelve months, followed by rates being held constant thereafter ("Ramp"). In downward shifts of the yield curve, interest rates are not modeled to decline lower than 0%.

	Estimated Increase (Decrease) in Net Interest Income	
Change in Market Interest Rates	**Twelve Months Ending December 31, 2021**	**Twelve Months Ending December 31, 2022**
Shock:		
+200 bps immediately	3.4%	10.9%
+100 bps immediately	1.4%	5.8%
-100 bps immediately	(1.5)%	(4.9)%
Ramp:		
+200 bps over next 12 months	1.4%	8.2%
+100 bps over next 12 months	0.6%	4.3%
-100 bps over next 12 months	(0.4)%	(3.7)%

As of December 31, 2020, the Bank's net interest income position is mildly asset sensitive, indicating that we would generally benefit from parallel increases in interest rates. In a hypothetical rising rate environment, we benefit from adjustable-rate loans, which would begin to reprice upward with prevailing rates, adjustable-rate securities, certain fixed funding sources and modeled deposit balances and mix.

With respect to deposit balances, we expect non-interest bearing and interest-bearing checking balances, which exclude money market checking, to remain at or below the current level of 67% of total deposits over the two-year horizon.

Excluding CDs, the remaining deposits include money market checking, money market savings and passbook accounts and are assumed to reprice with a modest lag by approximately 69% of short-term interest rate increases or 65% of short-term rate decreases over the two-year period, which is also consistent with our historical experience.

The results of this earnings simulation analysis are hypothetical, and a variety of factors might cause actual results to differ substantially from what is depicted. For example, if the timing and magnitude of interest rate changes differ from our projections or theoretical scenarios, our net interest income might vary significantly. Non-parallel yield curve shifts, such as a steepening, flattening, or inversion of the yield curve or changes in interest rate spreads, would also cause our net interest income to be different from that depicted. Actual results could also differ from those projected if we grow assets and liabilities faster or slower than estimated, if we experience a net outflow of deposit liabilities, if the size, frequency, or timing of actual cash flows differ from contractual cash flows, or if our mix of assets and liabilities otherwise changes materially. Actual results could also differ from those projected if we experience repayment speeds in our loan portfolio substantially different from those assumed in the simulation model.

Finally, these simulation results do not contemplate all the actions that we may undertake in response to potential or actual changes in interest rates, such as changes to our loan, investment, deposit, funding, or hedging strategies.

We may decide to take further action depending on subsequent interest rate and economic developments, the growth rates and mix of loans and deposits, the future level of loan repayments, purchases of investment securities, and changes in other assets.

FIRST REPUBLIC BANK
CONSOLIDATED BALANCE SHEETS

Item 8. Financial Statements and Supplementary Data.

(in thousands, except share amounts)	December 31, 2020	December 31, 2019
ASSETS		
Cash and cash equivalents	$ 5,094,754	$ 1,699,557
Debt securities available-for-sale (amortized cost of $1,874,064 and no allowance for credit losses at December 31, 2020)	1,906,315	1,282,169
Debt securities held-to-maturity (fair value of $17,964,019 and $17,765,944 at December 31, 2020 and 2019, respectively)	16,610,212	17,147,633
Less: Allowance for credit losses	(6,902)	—
Debt securities held-to-maturity, net	16,603,310	17,147,633
Equity securities (fair value)	20,566	19,586
Loans	112,566,265	90,796,831
Less: Allowance for credit losses	(635,019)	(496,104)
Loans, net	111,931,246	90,300,727
Loans held for sale	20,679	23,304
Investments in life insurance	2,061,362	1,434,642
Tax credit investments	1,131,905	1,100,509
Premises, equipment and leasehold improvements, net	403,482	386,841
Goodwill and other intangible assets	227,512	235,269
Other assets	3,101,003	2,633,397
Total Assets	$142,502,134	$116,263,634
LIABILITIES AND EQUITY		
Liabilities:		
Deposits:		
Noninterest-bearing checking	$ 46,281,112	$ 33,124,265
Interest-bearing checking	30,603,221	19,696,859
Money market checking	16,778,884	12,790,707
Money market savings and passbooks	12,584,522	10,586,355
Certificates of deposit	8,681,061	13,935,060
Total Deposits	114,928,800	90,133,246
Short-term borrowings	—	800,000
Long-term FHLB advances	11,755,000	12,200,000
Senior notes	996,145	497,719
Subordinated notes	778,313	777,885
Other liabilities	2,293,230	2,003,677
Total Liabilities	130,751,488	106,412,527
Shareholders' Equity:		
Preferred stock, $0.01 par value per share; 25,000,000 shares authorized; 1,545,000 and 1,145,000 shares issued and outstanding at December 31, 2020 and 2019, respectively	1,545,000	1,145,000
Common stock, $0.01 par value per share; 400,000,000 shares authorized; 174,123,862 and 168,620,708 shares issued and outstanding at December 31, 2020 and 2019, respectively	1,741	1,686
Additional paid-in capital	4,834,172	4,214,915
Retained earnings	5,346,355	4,484,375
Accumulated other comprehensive income	23,378	5,131
Total Shareholders' Equity	11,750,646	9,851,107
Total Liabilities and Shareholders' Equity	$142,502,134	$116,263,634

See accompanying notes to consolidated financial statements.

FIRST REPUBLIC BANK
CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME

($ in thousands, except per share amounts)	Year Ended December 31, 2020	2019	2018
Interest income:			
Loans	$3,244,796	$2,986,210	$2,442,469
Investments	576,484	547,988	540,753
Other	23,889	21,446	25,187
Cash and cash equivalents	7,504	23,835	23,197
Total interest income	3,852,673	3,579,479	3,031,606
Interest expense:			
Deposits	276,085	500,557	290,040
Borrowings	314,036	314,755	240,458
Total interest expense	590,121	815,312	530,498
Net interest income	3,262,552	2,764,167	2,501,108
Provision for credit losses	157,091	61,690	76,092
Net interest income after provision for credit losses	3,105,461	2,702,477	2,425,016
Noninterest income:			
Investment management fees	395,304	359,332	341,539
Brokerage and investment fees	50,517	41,035	31,867
Insurance fees	11,655	12,708	10,090
Trust fees	19,484	16,549	14,633
Foreign exchange fee income	49,552	41,026	35,606
Deposit fees	23,713	26,071	24,974
Loan and related fees	27,908	19,819	15,713
Loan servicing fees, net	(1,401)	11,348	13,302
Gain on sale of loans	16,987	535	5,616
Gain (loss) on investment securities	3,840	(3,436)	5,202
Income from investments in life insurance	53,503	45,570	40,670
Other income	3,171	6,663	4,233
Total noninterest income	654,233	577,220	543,445
Noninterest expense:			
Salaries and employee benefits	1,494,400	1,245,526	1,109,228
Information systems	298,632	273,337	241,752
Occupancy	220,752	192,678	152,258
Professional fees	66,494	68,099	60,058
Advertising and marketing	43,135	65,961	60,463
FDIC assessments	44,113	38,759	58,122
Other expenses	258,203	262,101	234,838
Total noninterest expense	2,425,729	2,146,461	1,916,719
Income before provision for income taxes	1,333,965	1,133,236	1,051,742
Provision for income taxes	269,814	202,907	197,914
Net income	1,064,151	930,329	853,828
Dividends on preferred stock	58,725	49,070	57,725
Net income available to common shareholders	$1,005,426	$ 881,259	$ 796,103
Net income	$1,064,151	$ 930,329	$ 853,828
Other comprehensive income (loss), net of tax:			
Net unrealized gain on debt securities transferred from held-to-maturity to available-for-sale	—	—	12,305
Net unrealized gain (loss) on debt securities available-for-sale	18,831	22,217	(8,518)
Reclassification of (gain) loss on debt securities available-for-sale to net income	81	3,021	(17,078)
Amortization of unrealized gain on debt securities transferred from available-for-sale to held-to-maturity	(665)	(724)	(1,070)
Other comprehensive income (loss)	18,247	24,514	(14,361)
Comprehensive income	$1,082,398	$ 954,843	$ 839,467
Basic earnings per common share	$ 5.85	$ 5.25	$ 4.89
Diluted earnings per common share	$ 5.81	$ 5.20	$ 4.81

See accompanying notes to consolidated financial statements.

FIRST REPUBLIC BANK
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(in thousands, except share amounts)	Common Stock Shares	Preferred Stock	Common Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
Balance at December 31, 2017	**161,695,803**	**$ 990,000**	**$1,617**	**$3,778,913**	**$3,051,611**	**$ (3,840)**	**$ 7,818,301**
Cumulative adjustments from adoption of new accounting guidance	—	—	—	—	1,334	(1,182)	152
Balance at January 1, 2018	**161,695,803**	**990,000**	**1,617**	**3,778,913**	**3,052,945**	**(5,022)**	**7,818,453**
Net income	—	—	—	—	853,828	—	853,828
Other comprehensive loss	—	—	—	—	—	(14,361)	(14,361)
Issuance of preferred stock, net	—	300,000	—	(9,840)	—	—	290,160
Redemption of preferred stock	—	(350,000)	—	—	—	—	(350,000)
Issuance of common stock, net	2,000,000	—	20	200,553	—	—	200,573
Stock compensation expense	—	—	—	93,134	—	—	93,134
Net issuance of common stock under stock plans	1,206,147	—	12	(38,454)	—	—	(38,442)
Dividends on preferred stock (see Note 17)	—	—	—	—	(57,725)	—	(57,725)
Dividends on common stock ($0.71/share)	—	—	—	—	(117,843)	—	(117,843)
Balance at December 31, 2018	**164,901,950**	**940,000**	**1,649**	**4,024,306**	**3,731,205**	**(19,383)**	**8,677,777**
Net income	—	—	—	—	930,329	—	930,329
Other comprehensive income	—	—	—	—	—	24,514	24,514
Issuance of preferred stock, net	—	395,000	—	(12,496)	—	—	382,504
Redemption of preferred stock	—	(190,000)	—	—	—	—	(190,000)
Issuance of common stock, net	2,000,000	—	20	170,565	—	—	170,585
Stock compensation expense	—	—	—	104,376	—	—	104,376
Net issuance of common stock under stock plans	1,718,758	—	17	(71,836)	—	—	(71,819)
Dividends on preferred stock (see Note 17)	—	—	—	—	(49,070)	—	(49,070)
Dividends on common stock ($0.75/share)	—	—	—	—	(128,089)	—	(128,089)
Balance at December 31, 2019	**168,620,708**	**1,145,000**	**1,686**	**4,214,915**	**4,484,375**	**5,131**	**9,851,107**
Cumulative adjustments from adoption of new accounting guidance	—	—	—	—	(4,677)	—	(4,677)
Balance at January 1, 2020	**168,620,708**	**1,145,000**	**1,686**	**4,214,915**	**4,479,698**	**5,131**	**9,846,430**
Net income	—	—	—	—	1,064,151	—	1,064,151
Other comprehensive income	—	—	—	—	—	18,247	18,247
Issuance of preferred stock, net	—	500,000	—	(7,936)	—	—	492,064
Redemption of preferred stock	—	(100,000)	—	—	—	—	(100,000)
Issuance of common stock, net	4,225,000	—	42	515,974	—	—	516,016
Stock compensation expense	—	—	—	149,385	—	—	149,385
Net issuance of common stock under stock plans	1,278,154	—	13	(38,166)	—	—	(38,153)
Dividends on preferred stock (see Note 17)	—	—	—	—	(58,725)	—	(58,725)
Dividends on common stock ($0.79/share)	—	—	—	—	(138,769)	—	(138,769)
Balance at December 31, 2020	**174,123,862**	**$1,545,000**	**$1,741**	**$4,834,172**	**$5,346,355**	**$ 23,378**	**$11,750,646**

See accompanying notes to consolidated financial statements.

FIRST REPUBLIC BANK
CONSOLIDATED STATEMENTS OF CASH FLOWS

($ in thousands)	Year Ended December 31, 2020	2019	2018
Operating Activities:			
Net income	$ 1,064,151	$ 930,329	$ 853,828
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for credit losses	157,091	61,690	76,092
Depreciation, amortization and accretion, net	152,883	124,287	97,578
Amortization of mortgage servicing rights	13,196	13,352	16,785
Provision for mortgage servicing rights in excess of fair value	8,836	1,863	—
Deferred income taxes	(71,242)	(69,830)	(92,598)
Gain on sale of loans	(16,987)	(535)	(5,616)
(Gain) loss on investment securities	(3,840)	3,436	(5,202)
Noncash cost of stock plans	149,385	104,376	93,134
Other net losses	3,482	2,473	—
Loans originated or purchased for sale	(1,170,087)	(570,165)	(215,354)
Proceeds from sales and principal repayments of loans held for sale	316,998	137,207	274,870
(Increase) decrease in other assets	(57,472)	40,218	(79,958)
Increase (decrease) in other liabilities	(15,132)	159,810	97,645
Net Cash Provided by Operating Activities	531,262	938,511	1,111,204
Investing Activities:			
Loan originations, net of principal collections	(21,982,891)	(14,959,280)	(13,804,816)
Loans purchased	(758,962)	(58,902)	(635,438)
Loans sold	953,752	151,256	1,000,050
Purchases of debt securities available-for-sale	(387,925)	(401,242)	—
Proceeds from sales, maturities and paydowns of debt securities available-for-sale	618,218	1,366,044	3,066,877
Purchases of debt securities held-to-maturity	(2,517,406)	(4,493,638)	(906,358)
Proceeds from sales, maturities, calls and paydowns of debt securities held-to-maturity	3,107,768	1,783,595	530,518
Purchases of FHLB stock and other investments	(126,723)	(332,876)	(151,499)
Proceeds from redemptions of FHLB stock and sales of other investments	139,983	238,173	138,409
Purchases of investments in life insurance	(583,147)	(23,147)	(5,000)
Net change in tax credit and other investments	(168,817)	(166,059)	(160,887)
Additions to premises, equipment and leasehold improvements, net	(148,667)	(167,941)	(133,875)
Proceeds from sale of subsidiary	—	29,265	—
Net Cash Used for Investing Activities	(21,854,817)	(17,034,752)	(11,062,019)
Financing Activities:			
Net increase in deposits	24,795,356	11,070,161	10,138,457
Net increase (decrease) in short-term borrowings	(800,000)	700,000	—
Proceeds from long-term debt	6,955,000	7,050,000	3,300,000
Repayment of long-term debt	(6,900,000)	(3,950,000)	(2,900,000)
Payment of long-term debt issuance costs	(3,503)	—	—
Net proceeds from issuance of preferred stock	492,064	382,504	290,160
Net proceeds from issuance of common stock	516,016	170,585	200,573
Redemption of preferred stock	(100,000)	(190,000)	(350,000)
Proceeds from ESPP and stock options exercised	23,883	18,178	12,934
Payments of employee taxes withheld from share-based awards	(62,570)	(89,630)	(51,603)
Dividends on preferred stock	(58,725)	(49,070)	(57,725)
Dividends on common stock	(138,769)	(128,089)	(117,843)
Net Cash Provided by Financing Activities	24,718,752	14,984,639	10,464,953
Increase (Decrease) in Cash and Cash Equivalents	3,395,197	(1,111,602)	514,138
Cash and Cash Equivalents at the Beginning of Period	1,699,557	2,811,159	2,297,021
Cash and Cash Equivalents at the End of Period	$ 5,094,754	$ 1,699,557	$ 2,811,159
Supplemental Disclosure of Cash Flow Items:			
Cash paid:			
Interest	$ 614,860	$ 808,117	$ 516,784
Income taxes	$ 157,433	$ 155,315	$ 97,852
Non-cash activities:			
Transfer of loans to held for sale	$ 963,874	$ 80,513	$ 1,071,499
Transfer of loans held for sale to debt securities	$ 836,837	$ 424,037	$ 363,640
Transfer of debt securities from held-to-maturity to available-for-sale	$ —	$ —	$ 2,096,497

See accompanying notes to consolidated financial statements.

FIRST REPUBLIC BANK
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Summary of Significant Accounting Policies

Basis of Presentation and Organization

First Republic Bank ("First Republic" or the "Bank") is a California-chartered commercial bank and trust company headquartered in San Francisco with deposits insured by the FDIC. First Republic has operated for 35 years and the current legal entity has been operating since July 1, 2010. Our consolidated financial statements include First Republic and the following wholly-owned subsidiaries: FRIM, FRSC, FRTC Delaware, FRTC Wyoming and FRLC. Gradifi, Inc. ("Gradifi") was also a wholly-owned subsidiary of First Republic until it was sold on December 9, 2019. All significant intercompany balances and transactions have been eliminated.

Nature of Operations

First Republic and its subsidiaries offer private banking, private business banking and private wealth management, including investment, trust and brokerage services. First Republic specializes in delivering exceptional, relationship-based service and offers a complete line of products, including residential, commercial and personal loans, deposit services, and wealth management. Services are offered through preferred banking or wealth management offices primarily in San Francisco, Palo Alto, Los Angeles, Santa Barbara, Newport Beach and San Diego, California; Portland, Oregon; Boston, Massachusetts; Palm Beach, Florida; Greenwich, Connecticut; New York, New York; and Jackson, Wyoming.

First Republic originates real estate secured loans and other loans. Real estate secured loans are secured by single family residences, multifamily buildings, and commercial real estate properties and include loans to construct such properties. Most of the real estate loans that First Republic originates are secured by properties located close to one of its offices. First Republic originates business loans, loans secured by securities and other types of collateral and personal unsecured loans primarily to meet the non-mortgage needs of First Republic's clients. Most of these loans are also made to borrowers in the geographic areas served by the Bank's offices.

First Republic offers its clients various wealth management services. First Republic provides investment management services through FRIM, which earns fee income from the management of equity securities, fixed income securities, balanced portfolios, and alternative investments for its clients. The Trust Company provides trust and custody services. FRSC is a registered broker-dealer that performs brokerage and investment activities for clients. The Bank offers insurance solutions through FRSC and FRIM. The Bank also offers money market mutual funds to clients through third-party providers and conducts foreign exchange activities on behalf of clients.

Reclassifications

Certain prior period amounts have been reclassified to conform to the current period presentation.

Accounting Standards Adopted in 2020

During the year ended December 31, 2020, the Bank adopted the following ASUs issued by the FASB:

ASU 2016-13—Financial Instruments—Credit Losses (ASC 326): Measurement of Credit Losses on Financial Instruments and subsequent related ASUs

ASC 326 revises the methodology for estimating credit losses on loans receivable, held-to-maturity debt securities, and off-balance sheet credit exposures including unfunded loan commitments, by requiring that the ACL be based on CECL over the life of the asset. For available-for-sale debt securities that have experienced a deterioration in credit, ASC 326 requires an ACL to be recognized instead of a direct write-down.

The Bank adopted this guidance effective January 1, 2020 using a modified retrospective approach with no adjustments to prior period comparative financial statements. Upon adoption, the Bank recorded a cumulative effect adjustment to decrease retained earnings by $4.7 million, with corresponding adjustments to ACL on held-to-maturity debt securities, loans, and unfunded loan commitments, and DTAs on its consolidated balance sheet effective January 1, 2020. A summary of the impact to the consolidated balance sheet at the adoption date is presented in the table below:

($ in thousands)	Balance at January 1, 2020 (before adjustment)	Cumulative effect adjustment amount	Adjustment impact	Balance at January 1, 2020 (after adjustment)
Assets:				
Allowance for credit losses—held-to-maturity debt securities	$ —	$(4,669)	Increase	$ (4,669)
Allowance for credit losses—loans	$ (496,104)	1,675	Decrease	$ (494,429)
DTAs [(1)]	$ 393,426	1,985	Increase	$ 395,411
Total impact to assets		$(1,009)	Net Decrease	
Liabilities and equity:				
Allowance for credit losses—unfunded loan commitments [(2)]	$ 12,029	$ 3,668	Increase	$ 15,697
Retained earnings	$4,484,375	(4,677)	Decrease	$4,479,698
Total impact to liabilities and equity		$(1,009)	Net Decrease	

(1) Included in other assets on the consolidated balance sheets.
(2) Included in other liabilities on the consolidated balance sheets.

ASC 326 also requires additional or revised disclosures related to loans and debt securities. Refer to Note 3, "Investment Securities and Allowance for Credit Losses," and Note 4, "Loans and Allowance for Credit Losses," for these disclosures. Also refer to "—Investment Securities," "—Allowance for Credit Losses on Investments in Debt Securities," "—Loans," and "—Allowance for Credit Losses on Loans and Unfunded Loan Commitments," below for discussion of the changes in the Bank's accounting policies resulting from the adoption of ASC 326.

ASU 2017-04—Intangibles—Goodwill and Other (ASC 350): Simplifying the Test for Goodwill Impairment

The amendments simplify the accounting for goodwill impairment by removing Step 2 of the impairment test that previously required measuring the implied fair value of goodwill. The impairment test under the amended guidance only requires a comparison of the fair value of a reporting unit with its carrying amount.

The Bank adopted this guidance effective January 1, 2020 on a prospective basis. The adoption of this guidance did not have a material impact on its consolidated financial statements.

Refer to "—Goodwill and Other Identifiable Intangible Assets," below for discussion of the changes in the Bank's accounting policies resulting from the adoption of this guidance.

ASU 2018-13—Fair Value Measurement (ASC 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement

The amendments revise certain disclosure requirements for fair value measurements. The amendments remove the requirement to disclose the amounts and reasons for transfers between Levels 1 and 2 of the fair value hierarchy, the Bank's policy for the timing of transfers between levels, and the valuation processes for Level 3 fair value measurements. In addition, the amendments require disclosures of the changes in unrealized gains and losses included in other comprehensive income for recurring Level 3 fair value measurements and the range and weighted average of significant unobservable inputs to develop Level 3 fair value measurements.

The Bank adopted this guidance effective January 1, 2020. The Bank prospectively applied amendments to add new disclosures, while amendments to remove disclosures were applied retrospectively to all periods presented in the consolidated financial statements beginning in the first quarter of 2020. The adoption of this guidance did not have a material impact on the disclosures in the notes to its consolidated financial statements.

ASU 2018-15—Intangibles—Goodwill and Other—Internal-Use Software (ASC 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract

The amendments require certain implementation costs for cloud computing arrangements that are service contracts to be capitalized under the internal-use software guidance. Capitalized costs should generally be amortized over the term of the arrangement on a straight-line basis.

The Bank adopted this guidance effective January 1, 2020 on a prospective basis. The adoption of this guidance did not have a material impact on its consolidated financial statements.

Refer to "—Software and Cloud Computing Arrangements," below for discussion of the changes in the Bank's accounting policies resulting from the adoption of this guidance.

Investment Securities

The Bank's investments in marketable equity securities are measured at fair value with changes in fair value recognized in noninterest income. Any dividends received are recognized in interest income.

Debt securities that the Bank may not hold until maturity are classified as securities available-for-sale and reported at fair value. Beginning January 1, 2020, unrealized losses resulting from credit losses on available-for-sale debt securities are recognized in earnings as a provision for credit losses. Unrealized losses that do not result from credit losses are excluded from earnings and reported as accumulated other comprehensive income, net of applicable taxes, which is included in equity. Prior to January 1, 2020, all unrealized gains and losses, net of applicable taxes, were excluded from earnings and reported as accumulated other comprehensive income.

Debt securities that the Bank has the intent and ability to hold to maturity are classified as held-to-maturity and reported at amortized cost, excluding interest receivable. Interest receivable is separated from other components of amortized cost and presented within "Other assets" on the consolidated balance sheets.

Premiums and discounts are amortized or accreted over the contractual life of the security as an adjustment to the yield using the interest method. Premiums on callable debt securities are amortized to the earliest call date. For certain types of securities, prepayments are considered in determining the effective yield of the individual security. Unrealized and realized gains and losses on investment securities are determined based on the cost basis of securities specifically identified.

A debt security is considered past due if the required principal and interest payment has not been received as of the day after such payment was due. Debt securities are placed on nonaccrual status when there has been a missed payment of principal or interest, or earlier, if management determines that full collection of principal or interest is not expected. The Bank may return a debt security to accrual status when its principal and interest payments are current, a satisfactory payment history is established, and the Bank expects repayment of the remaining contractual principal and interest. The Bank promptly charges off balances of debt securities that are deemed uncollectible.

When a debt security is placed on nonaccrual status, the Bank reverses interest receivable against interest income. Since the nonaccrual policy results in a timely reversal of interest receivable, the Bank does not record an ACL on interest receivable.

Allowance for Credit Losses on Investments in Debt Securities

Beginning January 1, 2020, the Bank evaluates available-for-sale debt securities that experienced a decline in fair value below amortized cost for credit impairment. The Bank recognizes a credit impairment if the Bank has the intent to sell the security, or it is more likely than not that the Bank will be required to sell the security before recovery of its amortized cost. If the Bank does not intend to nor would be required to sell the security prior to recovery of the amortized cost, the Bank evaluates whether a credit loss has occurred through its impairment framework, which includes both qualitative and quantitative factors. Beginning January 1, 2020, certain factors are no longer considered in determining whether a credit loss exists, including the length of time fair value has been less than amortized cost. Factors that the Bank considers include explicit or implicit guarantees by the Federal Government, external credit ratings, the extent of the loss, credit subordination, and industry, geographical, economic, political, or other factors that are relevant to the collectibility of the debt security. After considering these factors, if the present value of expected cash flows, discounted at the security's effective yield, is lower than the security's amortized cost, an ACL is recognized.

Beginning January 1, 2020, the ACL on held-to-maturity debt securities is based on the security's amortized cost, excluding interest receivable, and represents the portion of the amortized cost that the Bank does not expect to collect over the life of the security. The ACL on held-to-maturity debt securities is initially recognized upon acquisition of the securities, and subsequently remeasured on a recurring basis.

Prior to January 1, 2020, for both available-for-sale and held-to-maturity debt securities that experienced a decline in fair value below amortized cost, the Bank recognized other-than-temporary impairment if the Bank (1) had the intent to sell the security, (2) it was more likely than not that the Bank would be required to sell the security before recovery of its amortized cost basis, or (3) the Bank did not expect to recover the entire amortized cost basis of the security.

Refer to Note 3, "Investment Securities and Allowance for Credit Losses," for additional discussion of the ACL on available-for-sale and held-to-maturity debt securities.

Loans

Loans are reported at amortized cost, which consists of their outstanding principal balances net of any charge-offs, unamortized deferred fees and costs on originated loans and premiums or discounts on purchased loans, excluding interest receivable. Interest receivable is separated from other components of amortized cost and presented within "Other assets" on the consolidated balance sheets.

Loan origination fees and direct loan origination costs are deferred and amortized as a yield adjustment over the contractual life of each loan using a level yield or straight-line methodology, depending upon the type of loan. Certain commitment fees are amortized over the commitment period using a straight-line methodology into noninterest income.

A loan is considered past due if the required principal and interest payment has not been received as of the day after such payment was due. Loans are placed on nonaccrual status when principal or interest payments are 90 days or more past due, except for single family loans that are well secured and in the process of collection, or earlier when management determines that collection of principal or interest is unlikely. The Bank may return a loan to accrual status when principal and interest payments are current, a satisfactory payment history is established and collectibility improves or the loan otherwise becomes well secured and is in the process of collection. The Bank promptly charges off loan balances that are deemed uncollectible.

When a loan is placed on nonaccrual status, the Bank reverses interest receivable against interest income and accounts for the loan on the cash or cost recovery method, until it qualifies for return to accrual status. Since the nonaccrual policy results in a timely reversal of interest receivable, the Bank does not record an ACL on interest receivable.

Allowance for Credit Losses on Loans and Unfunded Loan Commitments

Beginning January 1, 2020, the ACL on loans is measured on the loan's amortized cost basis, excluding interest receivable, and represents the portion of the amortized cost that the Bank does not expect to collect over the life of the loan. The ACL is initially recognized upon origination or purchase of the loans, and subsequently remeasured on a recurring basis.

Prior to January 1, 2020, the Bank followed ASC 450, "Contingencies," for non-impaired loans and ASC 310-10-35, "Receivables—Subsequent Measurement," for impaired loans to estimate its allowance for loan losses.

The Bank also records an ACL on unfunded loan commitments, which is based on the same assumptions as funded loans and also considers the probability of funding. The ACL is recognized as a liability, and for the year ended December 31, 2020, credit loss expense is recorded as provision for unfunded loan commitments within provision for credit losses in the consolidated statement of income. For the years ended December 31, 2019 and 2018, the provision for unfunded loan commitments was recorded in other noninterest expense. Upon funding of the loan, any related ACL previously recorded on the unfunded amount is reversed and an ACL is subsequently recognized on the outstanding loan.

Refer to Note 4, "Loans and Allowance for Credit Losses," for additional discussion of the ACL on loans and unfunded loan commitments.

Investments in Life Insurance

The Bank initially records investments in life insurance at cost and subsequently adjusts the carrying value of the investment quarterly to its cash surrender value. The Bank recognizes the resulting income or loss in noninterest income.

Tax Credit Investments

The initial cost of the Bank's low income housing tax credit ("tax credit") investments is amortized over the life of the investment using a proportional amortization method. Under the proportional amortization method, amortization expense recognized each period is based on the amount of tax credits and other tax benefits for the period as a percentage of expected total tax credits and other tax benefits of the investment. Amortization expense is presented as a component of provision for income taxes on the consolidated statements of income. Tax credit investments are evaluated on a quarterly basis to determine if it is more likely than not that the carrying amount of the tax credit investments will not be realized through the future recognition of tax credits and other tax benefits. If it is more likely than not that future tax credits and other tax benefits will not be realized, an impairment loss is recorded.

Selling and Servicing Loans

The Bank sells loans on a non-recourse basis to generate servicing income, to provide funds for additional lending and for ALM purposes. Loans that are sold include loans originated for sale to investors under commitments executed prior to origination, existing loans that are sold through bulk sales and loans sold through securitizations. The Bank classifies loans as held for sale when the Bank has the intent to sell, is waiting on a pre-approved investor purchase or is negotiating with a specific investor for the sale of specific loans that meet selected criteria. Loans held for sale include net deferred loan fees or costs and are carried at the lower of aggregate cost or fair value.

The Bank recognizes a sale only when consideration is received and control is transferred to the buyer. The Bank retains the MSRs on substantially all loans sold. The Bank's class of servicing rights consists of loans sold that are secured by real estate. MSRs retained for loans sold are initially measured at fair value at the date of transfer and recorded as a component of the gain or loss on sale of loans in the consolidated statements of income.

To determine the fair value of MSRs, the Bank uses a valuation model that calculates the present value of estimated future net servicing income. The Bank uses assumptions in the valuation model that market participants use in estimating future net servicing income, including estimates of prepayment speeds, discount rate, cost to service, escrow account earnings, contractual servicing fees and ancillary income.

MSRs are reported at the lower of amortized cost or fair value. MSRs are amortized in proportion to and over the period of estimated net servicing income. To calculate the initial fair value of MSRs and, subsequently, to measure impairment, the Bank values MSRs by stratifying loans by the year they are sold, by product type (fixed, hybrid or adjustable) and interest rate coupon range. Hybrid loans are further stratified by their initial fixed-rate period. The Bank evaluates impairment of MSRs for a stratum periodically based on their current fair value, actual prepayment experience and other market factors. If the fair value of MSRs for a stratum is less than the amortized cost, the Bank records a provision for a valuation allowance. Subsequently, the Bank adjusts the valuation allowance for changes in fair value to the extent that fair value does not exceed the amortized cost. The Bank evaluates at least quarterly the recoverability of the valuation allowance on MSRs. If the Bank determines that a portion of the valuation allowance is unrecoverable, primarily due to loan prepayments, the Bank records a direct write-down by reducing both the amortized cost of MSRs for a stratum and the related valuation allowance.

Goodwill and Other Identifiable Intangible Assets

In accordance with ASC 805, "Business Combinations," the Bank records the cost of acquisitions based on the estimated fair values of the assets acquired and liabilities and noncontrolling interests assumed at the acquisition date. Goodwill represents the excess of the purchase price over the fair value of the net assets acquired.

In accordance with ASC 350-20, "Goodwill," the Bank evaluates goodwill for impairment annually and on an interim basis if events or changes in circumstances indicate that its implied fair value is less than the carrying amount. Such an event or circumstance may include an adverse change in the business climate or market, a legal factor, an action by the regulators, introduction of or an increase in competition, or a loss of key personnel. In accordance with ASC 350-20, the Bank has the option to first perform a qualitative assessment to determine whether it is more likely than not that the fair value of the reporting unit is less than its carrying amount before applying the goodwill impairment test. The qualitative factors considered include, but are not limited to, industry and market conditions and trends, the Bank's financial performance and any Bank-specific events relevant to the assessment. If the assessment of qualitative factors indicates that it is not more likely than not that impairment exists, no further testing is performed. If there is an indication that impairment exists, a quantitative test is performed to determine whether the fair value of each reporting unit, including goodwill, is less than the carrying amount of the reporting unit. If the fair value of the reporting unit is less than its carrying amount, goodwill is considered impaired and an impairment loss is recognized as the amount by which the reporting unit's carrying amount exceeds its fair value, including any deferred tax adjustment for tax deductible goodwill. Prior to January 1, 2020, a goodwill impairment loss was recognized as the amount by which the carrying amount of goodwill exceeded its implied fair value.

Identifiable intangible assets related to core deposits, wealth management customer relationships and trade name/trademark are reported as other intangible assets. Intangible assets associated with core deposits and wealth management customer relationships are amortized on an accelerated basis over their useful lives, not to exceed ten years, and are evaluated for impairment whenever circumstances indicate that the carrying amount may not be recoverable. In accordance with ASC 360-10, "Impairment or Disposal of Long-Lived Assets," an impairment loss is recognized if the carrying amount is not recoverable and exceeds fair value. Intangible asset associated with trade name/trademark is considered to have an indefinite useful life and is evaluated for impairment annually, and on an interim basis if events or changes in circumstances indicate that its fair value is less than the carrying amount. ASC 350-30, "General Intangibles Other Than Goodwill," allows the Bank the option to first perform a qualitative assessment to determine whether the indefinite-lived intangible asset is impaired before determining its fair value. The qualitative factors considered include, but are not limited to, industry and market conditions and trends, the Bank's financial performance and any Bank-specific events relevant to the assessment. If the factors considered indicate that impairment exists, a quantitative test is performed and an impairment loss is recognized if the determined fair value is less than the carrying amount.

Premises, Equipment and Leasehold Improvements

Premises, equipment and leasehold improvements are recorded at cost, less accumulated depreciation and amortization. Depreciation and amortization are calculated on a straight-line basis over the estimated useful lives of the assets, which generally range from three to ten years, or the lease term, if the term is less than ten years.

Leases

In accordance with ASC 842, "Leases," the Bank determines at inception if an arrangement contains a lease. Lease liabilities are recognized upon commencement based on the present value of lease payments over the lease term, discounted using the Bank's incremental borrowing rate at the commencement date. Corresponding lease assets are recognized at the liability amount adjusted for any direct incremental costs, prepaid lease payments and lease incentives received. Additionally, the Bank combines non-lease components with lease components in the measurement of its lease assets and liabilities. The lease assets and lease liabilities recognized on the Bank's consolidated balance sheet are operating leases. Operating lease expense for lease payments is recognized on a straight-line basis over the lease term. Variable lease payments not included in the straight-line lease expense are expensed as incurred. Refer to Note 9, "Leases," for further discussion.

Software and Cloud Computing Arrangements

Software is recorded at cost, less accumulated amortization. Software includes purchased software, capitalized implementation costs, and capitalized development costs associated with internally developed software. Amortization is calculated on a straight-line basis over the estimated useful life of the software, which ranges from three to ten years. Software is included in "Premises, equipment and leasehold improvements, net" in the consolidated balance sheets.

Cloud computing arrangements include software as a service, platform as a service, infrastructure as a service, and other similar arrangements. Beginning January 1, 2020, certain implementation costs for cloud computing arrangements are capitalized, and amortized on a straight-line basis over the term of the arrangement. Capitalized implementation costs for cloud computing arrangements are included in "Other assets" in the consolidated balance sheets.

Income Taxes

DTAs and DTLs are recognized for the future tax consequences of differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. DTAs and DTLs are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

The Bank records a valuation allowance to reduce DTAs to the amount that is believed more likely than not to be realized. Management believes it is more likely than not that forecasted income, including income that may be generated as a result of certain tax planning strategies, sources of taxable income in carryback periods and tax effects of the DTLs, will be sufficient to fully recover the remaining DTAs. The Bank will continue to evaluate the realizability of the DTAs by assessing the need for a valuation allowance.

A tax position that meets the "more likely than not" recognition threshold is measured to determine the amount of benefits to recognize. The tax position is measured at the largest amount of benefit that is greater than 50% likely of being realized upon settlement. Interest and penalties are recognized as a component of income tax expense.

The Bank files a consolidated U.S. tax return and separate state and local tax returns.

Share-Based Compensation

The Bank follows ASC 718, "Compensation—Stock Compensation," in accounting for its stock compensation plan. The Bank has awarded stock options, RSUs, PSUs and RSAs to its employees, officers and directors.

The Bank's RSUs, PSUs and RSAs are valued at their grant date fair value, which is generally the closing market price of its common stock at the date of grant. Compensation expense is recognized over the requisite service period, which is generally the vesting period of the awards. The Bank accounts for forfeitures of stock awards in the period they occur.

Investment Management, Brokerage and Investment, Insurance, Trust, and Deposit Fees

Investment management fees, brokerage and investment fees, and trust fees are generally based upon the market value of AUM or AUA or the volume of transactions and are recorded on the accrual basis over the period in which the service is provided or the underlying transactions occur. Insurance fees are based on the value and type of the policies sold and are recognized once the policy is in effect and upon annual renewal. Deposit fees are based on average account balances, type of account and transactions and are recognized over the period that services are provided. See Note 24, "Revenue from Contracts with Customers" for further discussion.

COVID-19 Loan Modifications

Loan modifications to assist borrowers who are experiencing financial difficulties as a result of COVID-19 generally include deferring scheduled principal and/or interest payments for six months. For certain loans, the maturity of the loan may also be extended to allow for monthly payments to remain the same as they were pre-modification. Interest continues to accrue during the deferral period, and the deferred payments may be included in the borrower's final payment as a balloon payment, reamortized over the remaining maturity of the loan, or repaid over the extended term utilizing the pre-modification monthly payments, subject to the borrower's loan terms. Certain borrowers may receive additional relief beyond their initial modification period.

On March 27, 2020, the U.S. Government enacted the CARES Act which, among other items, provides emergency assistance for individuals, families, and businesses affected by COVID-19. On December 27, 2020, the CAA was signed into law, which among other items, extended the applicable period during which the Bank could elect TDR accounting relief. The CARES Act, as amended by the CAA, allows entities to elect to suspend the GAAP requirements for qualifying loan modifications that would otherwise be considered TDRs for the period beginning March 1, 2020 and ending on the earlier of 1) 60 days after the end of the national emergency related to COVID-19 or 2) January 1, 2022. The Bank has elected this relief, and therefore, loan modifications, including subsequent modifications, made to borrowers impacted by COVID-19 who were current, or less than 30 days past due, as of December 31, 2019, will not be considered TDRs. Further, the federal banking agencies and FFIEC issued interagency statements during 2020 providing guidance on accounting for loan modifications not eligible under the CARES Act provision, as amended by the CAA. For such loans, short-term loan modifications, including subsequent modifications, made for borrowers impacted by COVID-19 who were current, or less than 30 days past due, as of the modification date would also not be considered TDRs. Loan modifications are considered short-term if the cumulative deferral period is six months or less.

Loan modifications made to borrowers impacted by COVID-19 are predominantly not reported as nonaccrual. In addition, the deferrals may result in delayed delinquency status for borrowers who would otherwise be past due.

Refer to Note 4, "Loans and Allowance for Credit Losses—COVID-19 Loan Modifications," for information about these loan modifications as of December 31, 2020.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. Actual results could differ from these estimates. Material estimates subject to change include those related to ACL, fair value measurements, and income taxes.

The Bank's estimates for the year ended December 31, 2020 incorporate consideration of the impact of COVID-19. Refer to Note 4, "Loans and Allowance for Credit Losses—Changes in the Allowance for Credit Losses on Loans for the Year Ended December 31, 2020," for additional discussion.

Note 2. Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, amounts due from the Federal Reserve Bank and commercial banks, and short-term investments such as federal funds sold or U.S. Treasury Bills with original maturity dates of 90 days or less. As of December 31, 2019, amounts due from the Federal Reserve Bank include the minimum reserve balance the Bank is required to maintain. The Bank considers this reserve balance to be restricted. Effective in March 2020, the Federal Reserve reduced the reserve requirement ratios to zero percent, which eliminated the reserve requirement. Therefore, the Bank was not required to maintain a minimum cash balance at the Federal Reserve Bank as of December 31, 2020.

The following table presents information related to cash and cash equivalents:

($ in thousands)	December 31, 2020	December 31, 2019
Cash and due from banks	$ 471,541	$ 361,932
Interest-bearing deposits with banks	4,623,213	1,337,625
Total cash and cash equivalents	$5,094,754	$1,699,557

Note 3. Investment Securities and Allowance for Credit Losses

The Bank adopted ASC 326 effective January 1, 2020. ASC 326 requires recognition of an ACL on debt securities and requires certain additional or revised disclosures for investments in debt securities and the related ACL. Refer to Note 1, "Summary of Significant Accounting Policies," and the following disclosures for additional information.

The following table presents information related to available-for-sale debt securities:

($ in thousands)	December 31, 2020 Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Allowance for Credit Losses	Fair Value
Debt securities available-for-sale:					
Agency residential MBS	$1,091,159	$ 7,734	$(2,510)	$—	$1,096,383
Other residential MBS	21,105	346	—	—	21,451
Agency commercial MBS	714,509	26,499	(0)	—	741,008
Securities of U.S. states and political subdivisions—taxable	47,291	182	—	—	47,473
Total	$1,874,064	$34,761	$(2,510)	$—	$1,906,315

The following table presents information related to held-to-maturity debt securities:

($ in thousands)	December 31, 2020				December 31, 2020	
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Allowance for Credit Losses	Amortized Cost, Net of Allowance
Debt securities held-to-maturity:						
U.S. Government-sponsored agency securities	$ 50,000	$ —	$(21)	$ 49,979	$ —	$ 50,000
Agency residential MBS	1,300,551	34,942	—	1,335,493	—	1,300,551
Other residential MBS	12,875	215	—	13,090	—	12,875
Agency commercial MBS	2,488,504	160,055	—	2,648,559	—	2,488,504
Securities of U.S. states and political subdivisions:						
Tax-exempt municipal securities	11,799,170	1,092,721	(64)	12,891,827	(6,499)	11,792,671
Tax-exempt nonprofit debentures	74,910	442	—	75,352	(143)	74,767
Taxable municipal securities	811,504	61,925	—	873,429	(220)	811,284
Corporate debt securities	72,698	3,592	—	76,290	(40)	72,658
Total	$16,610,212	$1,353,892	$(85)	$17,964,019	$(6,902)	$16,603,310

The following table presents information related to equity securities measured at fair value:

($ in thousands)	December 31, 2020
Equity securities (fair value):	
Mutual funds and marketable equity securities	$20,566

The following tables present information related to available-for-sale debt securities, held-to-maturity debt securities, and equity securities measured at fair value:

	December 31, 2019			
($ in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities available-for-sale:				
Agency residential MBS	$ 367,671	$ 2,801	$ (146)	$ 370,326
Other residential MBS	4,152	90	(2)	4,240
Agency commercial MBS	857,754	3,337	(938)	860,153
Securities of U.S. states and political subdivisions—taxable	47,281	169	—	47,450
Total	$ 1,276,858	$ 6,397	$ (1,086)	$ 1,282,169
Debt securities held-to-maturity:				
U.S. Government-sponsored agency securities	$ 368,065	$ 100	$ (1,723)	$ 366,442
Agency residential MBS	2,224,252	10,601	(9,373)	2,225,480
Agency commercial MBS	3,296,724	35,430	(6,508)	3,325,646
Securities of U.S. states and political subdivisions:				
Tax-exempt municipal securities	10,483,668	589,526	(9,169)	11,064,025
Tax-exempt nonprofit debentures	138,140	2,777	—	140,917
Taxable municipal securities	612,704	13,466	(6,141)	620,029
Corporate debt securities	24,080	—	(675)	23,405
Total	$17,147,633	$651,900	$(33,589)	$17,765,944

($ in thousands)	December 31, 2019
Equity securities (fair value):	
Mutual funds and marketable equity securities	$19,586

The components of amortized cost for debt securities on the consolidated balance sheets exclude interest receivable since the Bank elected to present interest receivable within "Other assets." The following table presents interest receivable on debt securities:

	December 31, 2020	
($ in thousands)	Debt securities available-for-sale	Debt securities held-to-maturity
Interest receivable	$3,053	$139,371

Credit Quality

The Bank uses external ratings from third party rating agencies, such as Standard & Poor's ("S&P") and Moody's Investors Service ("Moody's"), to determine the credit quality of each security at purchase and to monitor the credit quality of securities in the portfolio on an ongoing basis. For certain securities that do not have an external rating at the security level, an implied external rating is used. This includes securities explicitly or implicitly guaranteed by the Federal Government, securities that are pre-refunded by the issuer or securities that are rated at only the issuer level. For tax-exempt nonprofit debentures and certain tax-exempt municipal securities that do not have an external or implied external rating, the security is internally graded and subsequently translated to a corresponding external rating. Rating changes and creditworthiness of all securities are reviewed at least on a quarterly basis. The ratings are described below, with the S&P rating first and the corresponding Moody's rating indicated parenthetically.

The credit quality indicators for the securities in the held-to-maturity portfolio range from the highest credit rating of AAA (Aaa) to BBB (Baa), which reflect the strong overall credit quality of the investment portfolio. All of the securities in the held-to-maturity portfolio are investment grade, given that none are rated below the BBB (Baa) category. The following are descriptions of each credit quality indicator:

- AAA (Aaa) rated securities are considered to be of the highest quality, and reflect the lowest level of credit risk of an obligor.
- AA (Aa) rated securities vary slightly from the AAA (Aaa) rated securities, but are still considered to be of very high quality, and reflect very low credit risk of an obligor.
- A (A) rated securities reflect low credit risk of an obligor, given the likelihood that such an obligor will be more impacted by an adverse economic environment than an AA (Aa) rated obligor.
- BBB (Baa) rated securities reflect moderate credit risk of an obligor, given that such an obligor is assumed to be more susceptible to an adverse economic environment than an A (A) rated obligor.

The following table presents the amortized cost of debt securities held-to-maturity by credit quality indicator:

	December 31, 2020				
($ in thousands)	AAA (Aaa)	AA (Aa)	A(A)	BBB (Baa)	Total
Debt securities held-to-maturity:					
U.S. Government-sponsored agency securities	$ —	$ 50,000	$ —	$ —	$ 50,000
Agency residential MBS	—	1,300,551	—	—	1,300,551
Other residential MBS	12,526	349	—	—	12,875
Agency commercial MBS	—	2,488,504	—	—	2,488,504
Securities of U.S. states and political subdivisions:					
Tax-exempt municipal securities	3,031,638	8,486,667	280,865	—	11,799,170
Tax-exempt nonprofit debentures	—	—	19,616	55,294	74,910
Taxable municipal securities	217,871	593,633	—	—	811,504
Corporate debt securities	48,620	24,078	—	—	72,698
Total	$ 3,310,655	$12,943,782	$ 300,481	$ 55,294	$ 16,610,212

The carrying value of held-to-maturity debt securities that were internally rated and translated to a corresponding external grade was $74.9 million at December 31, 2020, all of which were tax-exempt nonprofit debentures.

Aging and Nonaccrual

As of both December 31, 2020 and 2019, there were no debt securities past due or on nonaccrual status.

Allowance for Credit Losses

Debt Securities Available-for-Sale

The following table presents gross unrealized losses and fair value of available-for-sale debt securities by length of time that individual securities in each category had been in a continuous loss position:

	December 31, 2020						
	Less than 12 months		12 months or more		Total		
($ in thousands)	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Total Number of Securities
Debt securities available-for-sale:							
Agency residential MBS	$(2,500)	$477,767	$(10)	$1,595	$(2,510)	$479,362	207
Agency commercial MBS	—	—	(0)	860	(0)	860	1
Total	$(2,500)	$477,767	$(10)	$2,455	$(2,510)	$480,222	208

For available-for-sale debt securities that experienced a decline in fair value below amortized cost, the Bank concluded that it does not intend to nor would it be required to sell any of the securities prior to recovery of the amortized cost. The Bank then evaluated whether the decline in fair value resulted from a credit loss through its impairment assessment, described below.

Due to their explicit or implicit guarantee by the Federal Government, the Bank's agency residential MBS and agency commercial MBS have no expected credit losses. For all other available-for-sale debt securities, the Bank concluded that declines in fair value did not result from deteriorations in credit. The Bank expects to continue to receive all contractual principal and interest payments. Therefore, no ACL was recognized on available-for-sale debt securities as of December 31, 2020.

Debt Securities Held-to-Maturity

The Bank's held-to-maturity U.S. Government-sponsored agency securities, agency residential MBS, and agency commercial MBS are considered to not have expected credit losses due to the explicit or implicit guarantee by the Federal Government. Therefore, no ACL has been recognized on these securities.

Held-to-maturity debt securities with similar risk characteristics are pooled when developing the ACL. The Bank's ACL on its held-to-maturity securities of U.S. states and political subdivisions (including tax-exempt municipal securities, tax-exempt nonprofit debentures and taxable municipal securities) is determined using a quantitative PD/LGD model to forecast credit losses. The Bank's estimate incorporates the security's characteristics, macroeconomic forecasts and historical loss rates to determine expected credit losses over the life of the securities. The PD/LGD model currently projects credit losses over a reasonable and supportable period of three years, followed by an immediate reversion to its historical loss rate for the remaining life of the security. On a quarterly or more frequent basis, the Bank's Economic Forecast Committee discusses and approves the macroeconomic forecast scenario used for the model and determines whether any changes to the reasonable and supportable period, as well as reversion period, are necessary.

During the three-year reasonable and supportable period, the PD model uses a rating-based transition matrix methodology that considers macroeconomic factors and issuer-level risk characteristics. The LGD model uses static industry level LGD rates segmented by industry sector of the underlying security. Estimated losses are calculated using the product of PD and LGD to produce a loss rate, which is multiplied by the security's amortized cost.

Subsequent to the reasonable and supportable period, the Bank reverts to its historical loss rate immediately. For the historical loss period, historical average one year probabilities of default by rating bucket are used together with static industry-average LGD rates by industry sector to estimate losses for that period. Expected credit losses for the remaining life of the security are estimated by multiplying the historical loss rate by the security's amortized cost.

The Bank's ACL on corporate debt securities is based on, among other factors, the financial condition of the issuer and structure of the security.

The increase in the ACL on held-to-maturity debt securities during the year ended December 31, 2020 was primarily due to purchases of municipal securities.

The following table presents the activity in the ACL on held-to-maturity debt securities:

	At or for the Year Ended December 31, 2020				
($ in thousands)	Balance at Beginning of Period [(1)]	Provision	Charge-offs	Recoveries	Balance at End of Period
Debt securities held-to-maturity:					
Securities of U.S. states and political subdivisions:					
Tax-exempt municipal securities	$4,432	$2,067	$—	$—	$6,499
Tax-exempt nonprofit debentures	100	43	—	—	143
Taxable municipal securities	127	93	—	—	220
Corporate debt securities	10	30	—	—	40
Total	$4,669	$2,233	$—	$—	$6,902

(1) Represents the ACL after the transition adjustments from the adoption of CECL.

Debt Securities Available-for-Sale and Held-to-Maturity as of December 31, 2019

The following table presents gross unrealized losses and fair value of available-for-sale and held-to-maturity debt securities by length of time that individual securities in each category had been in a continuous loss position:

	December 31, 2019						
	Less than 12 months		12 months or more		Total		
($ in thousands)	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Total Number of Securities
Debt securities available-for-sale:							
Agency residential MBS	$ (2)	$ 861	$ (144)	$ 9,513	$ (146)	$ 10,374	17
Other residential MBS	(2)	471	—	—	(2)	471	2
Agency commercial MBS	(504)	132,158	(434)	68,908	(938)	201,066	7
Total	$ (508)	$ 133,490	$ (578)	$ 78,421	$ (1,086)	$ 211,911	26
Debt securities held-to-maturity:							
U.S. Government-sponsored agency securities	$ (1,723)	$ 298,249	$ —	$ —	$ (1,723)	$ 298,249	6
Agency residential MBS	(1,330)	318,478	(8,043)	767,121	(9,373)	1,085,599	24
Agency commercial MBS	(950)	550,395	(5,558)	455,461	(6,508)	1,005,856	25
Securities of U.S. states and political subdivisions:							
Tax-exempt municipal securities	(9,169)	1,168,483	—	—	(9,169)	1,168,483	126
Taxable municipal securities	(6,141)	378,768	—	—	(6,141)	378,768	44
Corporate debt securities	(675)	23,405	—	—	(675)	23,405	4
Total	$(19,988)	$2,737,778	$(13,601)	$1,222,582	$(33,589)	$3,960,360	229

The Bank's assessment to determine whether debt securities available-for-sale and held-to-maturity are other-than-temporarily impaired considered, among other factors, the nature of the securities, credit ratings or financial condition of the issuer, the extent and duration of the unrealized loss, expected cash flows, market conditions and the Bank's ability to hold the securities through the anticipated recovery period. As of December 31, 2019, there were no other-than-temporary impairment charges on debt securities recognized in accumulated other comprehensive income. In addition, there were no other-than-temporary impairment charges on debt securities recognized in earnings during the year ended December 31, 2019.

Other Disclosures

The Bank pledges investment securities at the Federal Reserve Bank to maintain the ability to borrow at the discount window, or at a correspondent bank as collateral to secure trust funds and public deposits. At December 31, 2020, the carrying value of investment securities pledged was $4.34 billion, of which $4.33 billion was unencumbered and available to support additional borrowings.

During the year ended December 31, 2020, the Bank sold tax-exempt municipal securities from the held-to-maturity portfolio with a carrying value of $32.1 million. The sale of the securities was in response to evidence of deterioration in creditworthiness of a specific issuer as a result of potential liabilities related to impacts of wildfire.

The following table presents proceeds received from sales of investment securities:

($ in thousands)	Year Ended December 31, 2020	2019	2018
Debt securities available-for-sale:			
Sales proceeds	$70,868	$842,041	$2,533,694
Debt securities held-to-maturity:			
Sales proceeds	$34,822	$ —	$ —
Equity securities (fair value):			
Sales proceeds	$ 221	$ —	$ —

The following table presents gains and losses on investment securities:

($ in thousands)	Year Ended December 31, 2020	2019	2018
Debt securities available-for-sale:			
Gross realized gains on sales	$ 37	$ 214	$ 72,573
Gross realized losses on sales	(151)	(4,517)	(65,773)
Debt securities held-to-maturity:			
Gross realized gains on sales	2,753	—	—
Equity securities (fair value):			
Gross realized losses on sales	(10)	—	
Net change in fair value	1,211	867	(1,598)
Total gain (loss) on investment securities	$3,840	$(3,436)	$ 5,202

The following table presents interest income on investment securities:

($ in thousands)	Year Ended December 31, 2020	2019	2018
Interest income on tax-exempt securities	$385,431	$322,517	$299,696
Interest income on taxable securities	191,053	225,471	241,057
Total	$576,484	$547,988	$540,753

Contractual Maturities

The following tables present contractual maturities of debt securities available-for-sale and held-to-maturity. Actual maturities for certain U.S. Government agency securities, U.S. Government-sponsored agency securities and municipal securities may occur earlier than their stated contractual maturities because the note issuers may have the right to call outstanding amounts ahead of their contractual maturities. In addition, the remaining contractual principal maturities for MBS do not consider prepayments. Expected remaining maturities for MBS can differ from contractual maturities because borrowers have the right to prepay their mortgage obligations, with or without penalties, prior to contractual maturity.

	Available-for-sale				
($ in thousands)	Amount	Within 1 Year	After 1 Through 5 Years	After 5 Through 10 Years	After 10 Years
At December 31, 2020					
Amortized cost:					
Agency residential MBS	$1,091,159	$ —	$ 1,448	$ —	$1,089,711
Other residential MBS	21,105	—	—	—	21,105
Agency commercial MBS	714,509	860	110,382	129,140	474,127
Securities of U.S. states and political subdivisions—taxable	47,291	—	—	—	47,291
Total	$1,874,064	$860	$111,830	$129,140	$1,632,234
Fair value:					
Agency residential MBS	$1,096,383	$ —	$ 1,439	$ —	$1,094,944
Other residential MBS	21,451	—	—	—	21,451
Agency commercial MBS	741,008	860	110,653	130,553	498,942
Securities of U.S. states and political subdivisions—taxable	47,473	—	—	—	47,473
Total	$1,906,315	$860	$112,092	$130,553	$1,662,810

	Held-to-maturity				
($ in thousands)	Amount	Within 1 Year	After 1 Through 5 Years	After 5 Through 10 Years	After 10 Years
At December 31, 2020					
Amortized cost, net of allowance:					
U.S. Government-sponsored agency securities	$ 50,000	$ —	$ —	$ —	$ 50,000
Agency residential MBS	1,300,551	—	3,661	—	1,296,890
Other residential MBS	12,875	—	—	—	12,875
Agency commercial MBS	2,488,504	—	—	—	2,488,504
Securities of U.S. states and political subdivisions:					
Tax-exempt municipal securities	11,792,671	235,314	659,651	168,669	10,729,037
Tax-exempt nonprofit debentures	74,767	—	—	—	74,767
Taxable municipal securities	811,284	—	—	—	811,284
Corporate debt securities	72,658	—	—	—	72,658
Total	$16,603,310	$235,314	$663,312	$168,669	$15,536,015

($ in thousands)	December 31, 2019	
	Amortized Cost	Fair Value
Available-for-sale:		
Due in one year or less	$ 1,142	$ 1,144
Due after one year through five years	167,016	166,246
Due after five years through ten years	26,359	26,326
Due after ten years	1,082,341	1,088,453
Total	$ 1,276,858	$ 1,282,169
Held-to-maturity:		
Due in one year or less	$ 314,975	$ 320,051
Due after one year through five years	469,078	513,497
Due after five years through ten years	352,166	370,660
Due after ten years	16,011,414	16,561,736
Total	$17,147,633	$17,765,944

Note 4. Loans and Allowance for Credit Losses

The Bank adopted ASC 326 effective January 1, 2020. ASC 326 changes the methodology for determining the ACL on loans held for investment and unfunded loan commitments. ASC 326 also requires certain additional or revised disclosures for loans and the related ACL. Refer to Note 1, "Summary of Significant Accounting Policies," and the following disclosures for additional information.

Loan Profile

The Bank's portfolio segments consist of residential real estate, income property, business and other loans. Each segment is further disaggregated by classes. Beginning in April 2020, the Bank became a lender under the PPP. The following table presents loans held for investment by portfolio segment and class, and the ACL:

($ in thousands)	December 31, 2020	December 31, 2019 [(1)]
Residential real estate		
Single family	$ 61,370,246	$47,985,651
Home equity lines of credit	2,449,533	2,501,432
Single family construction	787,854	761,589
Total residential real estate	64,607,633	51,248,672
Income property		
Multifamily	13,768,957	12,353,359
Commercial real estate	8,018,158	7,449,058
Multifamily/commercial construction	2,024,420	1,695,954
Total income property	23,811,535	21,498,371
Business		
Capital call lines of credit	8,149,946	5,570,322
Tax-exempt	3,365,572	3,042,193
Other business	3,340,048	3,034,301
PPP	1,841,376	—
Total business	16,696,942	11,646,816
Other		
Stock secured	2,518,338	1,897,511
Other secured	1,818,550	1,433,399
Unsecured	3,113,267	3,072,062
Total other	7,450,155	6,402,972
Total loans held for investment	112,566,265	90,796,831
Less: Allowance for credit losses	(635,019)	(496,104)
Loans, net	$111,931,246	$90,300,727

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

The following table presents loans held for sale:

($ in thousands)	December 31, 2020	December 31, 2019
Loans held for sale	$20,679	$23,304

Real estate loans are secured by single family, multifamily and commercial real estate properties and generally mature over periods of up to thirty years. At both December 31, 2020 and 2019, approximately 51% of the total loan portfolio was secured by California real estate. At December 31, 2020 and 2019, approximately 64% and 66%, respectively, of single family mortgages fully and evenly amortize until maturity following an initial interest-only period of generally ten years.

As of December 31, 2020, the Bank had pledged $59.3 billion of loans to secure borrowings of $11.8 billion from the FHLB, although only approximately $14.9 billion of collateral was required in connection with the outstanding FHLB advances.

The components of amortized cost for loans on the consolidated balance sheets exclude interest receivable since the Bank elected to present interest receivable within "Other assets." The following table presents interest receivable on loans held for investment:

($ in thousands)	December 31, 2020
Interest receivable [(1)]	$288,094

[(1)] Includes $7.2 million of deferred interest from loan modifications to assist borrowers experiencing financial difficulties as a result of COVID-19. Deferred interest will be added to the principal balance of the loan at the end of the deferral period, and may be included as a final balloon payment, reamortized over the remaining loan life, or repaid over the extended term utilizing the pre-modification monthly payments.

Aging and Nonaccrual

The following tables present an aging analysis of loans:

($ in thousands)	30-59 Days Past Due	60-89 Days Past Due	90 Days or More Past Due	Total Past Due	Current	Total Loans
At December 31, 2020						
Residential real estate						
Single family	$30,565	$ —	$ 37,649	$ 68,214	$ 61,302,032	$ 61,370,246
Home equity lines of credit	3,333	—	12,785	16,118	2,433,415	2,449,533
Single family construction	—	—	—	—	787,854	787,854
Total residential real estate	33,898	—	50,434	84,332	64,523,301	64,607,633
Income property						
Multifamily	—	—	—	—	13,768,957	13,768,957
Commercial real estate	7,768	—	726	8,494	8,009,664	8,018,158
Multifamily/commercial construction	—	—	57,843	57,843	1,966,577	2,024,420
Total income property	7,768	—	58,569	66,337	23,745,198	23,811,535
Business						
Capital call lines of credit	—	—	—	—	8,149,946	8,149,946
Tax-exempt	—	—	—	—	3,365,572	3,365,572
Other business	58	—	698	756	3,339,292	3,340,048
PPP	—	—	—	—	1,841,376	1,841,376
Total business	58	—	698	756	16,696,186	16,696,942
Other						
Stock secured	—	—	—	—	2,518,338	2,518,338
Other secured	2,890	—	23	2,913	1,815,637	1,818,550
Unsecured	567	144	1,128	1,839	3,111,428	3,113,267
Total other	3,457	144	1,151	4,752	7,445,403	7,450,155
Total	$45,181	$144	$110,852	$156,177	$112,410,088	$112,566,265

($ in thousands)	30-59 Days Past Due	60-89 Days Past Due	90 Days or More Past Due	Total Past Due	Current	Total Loans
At December 31, 2019 [(1)]						
Residential real estate						
Single family	$29,257	$3,630	$ 7,693	$40,580	$47,945,071	$47,985,651
Home equity lines of credit	1,037	479	2,853	4,369	2,497,063	2,501,432
Single family construction	—	—	—	—	761,589	761,589
Total residential real estate	30,294	4,109	10,546	44,949	51,203,723	51,248,672
Income property						
Multifamily	—	—	—	—	12,353,359	12,353,359
Commercial real estate	—	—	—	—	7,449,058	7,449,058
Multifamily/commercial construction	—	—	—	—	1,695,954	1,695,954
Total income property	—	—	—	—	21,498,371	21,498,371
Business						
Capital call lines of credit	—	—	—	—	5,570,322	5,570,322
Tax-exempt	—	—	—	—	3,042,193	3,042,193
Other business	252	22	953	1,227	3,033,074	3,034,301
Total business	252	22	953	1,227	11,645,589	11,646,816
Other						
Stock secured	—	252	—	252	1,897,259	1,897,511
Other secured	—	—	22	22	1,433,377	1,433,399
Unsecured	600	249	—	849	3,071,213	3,072,062
Total other	600	501	22	1,123	6,401,849	6,402,972
Total	$31,146	$4,632	$11,521	$47,299	$90,749,532	$90,796,831

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

The table below presents information on loans 90 days or more past due and accruing and loans on nonaccrual status. Nonaccrual loans at December 31, 2020 include one lending relationship totaling $61.9 million, consisting of single family and non-owner occupied single family construction loans.

	December 31,				
	2020			2019 [(1)]	
		Nonaccrual			
($ in thousands)	90 Days or More Past Due and Accruing	Total	Total Without an Allowance	90 Days or More Past Due and Accruing	Nonaccrual
Residential real estate					
Single family	$—	$ 85,630	$ 73,394	$—	$ 59,013
Home equity lines of credit	—	31,571	26,711	—	11,158
Total residential real estate	—	117,201	100,105	—	70,171
Income property					
Commercial real estate	—	2,320	1,200	—	—
Multifamily/commercial construction	—	57,843	57,843	—	68,856
Total income property	—	60,163	59,043	—	68,856
Business					
Other business	—	4,534	2,822	—	2,721
Other					
Other secured	—	23	—	—	23
Unsecured	—	2,211	192	—	1,410
Total other	—	2,234	192	—	1,433
Total	$—	$184,132	$162,162	$—	$143,181

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

The interest income that would have been recognized related to nonaccrual loans at each respective period end is presented in the following table:

	Year Ended December 31,		
($ in thousands)	2020	2019	2018
Actual interest income recognized	$ —	$ —	$ —
Interest income under original terms	$5,339	$4,489	$1,821

Credit Quality

The Bank's primary credit quality indicator for loans is its internal loan risk grades. The Bank maintains a loan risk grading system that takes into consideration regulatory guidelines and incorporates a number of considerations, such as a borrower's financial condition, adequacy of collateral, and other factors that may impact a borrower's ability to repay the loan. The Bank's internal loan grades apply to all loans and are as follows:

Pass—These loans are performing substantially as agreed, with no current identified material weakness in repayment ability. Any credit or collateral exceptions existing with respect to the loan should be minimal and immaterial, in the process of correction, and not such that they could subsequently impair credit quality and introduce risk of collection.

Special Mention—These loans have potential weaknesses and deserve management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the loan or of the Bank's credit position at some future date. However, these loans do not expose the Bank to sufficient risk to warrant adverse classification.

Substandard—These loans are inadequately protected by the current worth and paying capacity of the obligor or of the collateral pledged, if any. These loans have a well-defined weakness that jeopardizes the liquidation of the debt.

Doubtful—These loans have weaknesses that make collection or liquidation in full highly improbable. The possibility of some loss is extremely high, but because of certain important and reasonable specific pending factors that may work to the advantage and strengthening of the loan, its classification as a loss is deferred until a more exact status may be determined.

The majority of the Bank's loan portfolio is secured by real estate. A decline in real estate values can negatively impact our ability to recover our investment should the borrower become delinquent. We safeguard against this risk by rarely exceeding an LTV ratio of 80% with respect to real estate lending.

We perform regular monitoring and annual reviews of our loan portfolio to identify and evaluate any deterioration in primary and/or secondary sources of repayment, including evaluations of the borrower's financial condition and value of the collateral. Annual reviews of residential real estate and other loans include an analysis of payment history, collateral value and credit scores. Annual reviews of our larger income property and business loans include analysis of financial statements of the property and/or borrower to determine the current ability to repay outstanding obligations. Updates to risk grades are made, as needed, upon completion of reviews.

For loans that are criticized or classified, the Bank's Special Assets Committee reviews loan grades, reserves and accrual status on a quarterly or more frequent basis. This review includes an evaluation of the market conditions, the property's trends, the borrower and guarantor status, the level of reserves required and loan accrual status.

Additionally, we have an independent, third-party review performed on our loan grades and our credit administration functions each year. The results of the third-party review are presented to the Audit Committee of the Board. These asset review procedures provide management with additional information for assessing and affirming our asset quality.

Other Real Estate Owned and Residential Mortgage Loans in the Process of Foreclosure

As of both December 31, 2020 and 2019, the Bank did not have any residential real estate owned (acquired through foreclosure).

The carrying amount of residential mortgage loans in the process of foreclosure was $8.0 million and $7.1 million at December 31, 2020 and 2019, respectively.

Vintage

The following table presents loan balances by credit quality indicator and vintage year of origination or the year of modification if such modifications meet the criteria to be considered a new loan under ASC 310-20, "Nonrefundable Fees and Other Costs." For revolving lines of credit that converted to term loans, if the conversion involved a credit decision, such loans are included in the origination year in which the credit decision was made. If revolving lines of credit converted to term loans without a credit decision, such lines of credit are included in the "Revolving lines of credit converted to term" column in the following table.

($ in thousands)	2020	2019	2018	2017	2016	Prior	Revolving lines of credit	Revolving lines of credit converted to term	Total
At December 31, 2020									
Residential real estate									
Single family:									
Pass	$23,175,447	$13,083,243	$6,682,850	$7,137,020	$5,034,400	$5,999,314	$ —	$ —	$61,112,274
Special mention	5,730	27,479	18,394	31,313	12,198	58,530	—	—	153,644
Substandard	4,850	4,108	10,656	16,234	27,462	41,018	—	—	104,328
	23,186,027	13,114,830	6,711,900	7,184,567	5,074,060	6,098,862	—	—	61,370,246
Home equity lines of credit:									
Pass	—	—	—	—	—	—	2,345,229	52,766	2,397,995
Special mention	—	—	—	—	—	—	15,721	2,179	17,900
Substandard	—	—	—	—	—	—	28,462	5,176	33,638
	—	—	—	—	—	—	2,389,412	60,121	2,449,533
Single family construction:									
Pass	220,745	278,559	218,570	49,119	17,227	3,634	—	—	787,854
Total residential real estate	23,406,772	13,393,389	6,930,470	7,233,686	5,091,287	6,102,496	2,389,412	60,121	64,607,633
Income property									
Multifamily:									
Pass	3,824,340	2,934,972	2,493,386	1,631,544	1,228,929	1,396,955	210,256	—	13,720,382
Special mention	—	—	1,597	—	—	—	—	—	1,597
Substandard	—	46,978	—	—	—	—	—	—	46,978
	3,824,340	2,981,950	2,494,983	1,631,544	1,228,929	1,396,955	210,256	—	13,768,957
Commercial real estate:									
Pass	1,687,047	1,474,889	1,144,297	899,077	796,430	1,751,983	191,890	—	7,945,613
Special mention	—	15,556	2,085	1,290	21,763	6,894	—	—	47,588
Substandard	1,594	—	—	17,267	4,722	725	649	—	24,957
	1,688,641	1,490,445	1,146,382	917,634	822,915	1,759,602	192,539	—	8,018,158
Multifamily/commercial construction									
Pass	583,995	669,245	522,731	115,873	10,824	—	37,118	—	1,939,786
Special mention	7,993	—	—	—	—	—	—	—	7,993
Substandard	18,798	57,843	—	—	—	—	—	—	76,641
	610,786	727,088	522,731	115,873	10,824	—	37,118	—	2,024,420
Total income property	6,123,767	5,199,483	4,164,096	2,665,051	2,062,668	3,156,557	439,913	—	23,811,535

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($ in thousands)	2020	2019	2018	2017	2016	Prior	Revolving lines of credit	Revolving lines of credit converted to term	Total
At December 31, 2020									
Business									
Capital call lines of credit:									
Pass	—	34,620	112,340	—	—	—	8,002,986	—	8,149,946
Tax-exempt:									
Pass	982,247	135,122	221,041	434,895	292,953	1,290,922	—	—	3,357,180
Substandard	—	—	—	—	8,392	—	—	—	8,392
	982,247	135,122	221,041	434,895	301,345	1,290,922	—	—	3,365,572
Other business:									
Pass	881,074	564,965	350,527	214,483	138,549	236,896	916,353	—	3,302,847
Special mention	5,600	2,694	—	12,269	80	2,288	5,128	—	28,059
Substandard	—	1,443	2,463	2,210	77	690	2,093	—	8,976
Doubtful	—	—	—	—	—	71	95	—	166
	886,674	569,102	352,990	228,962	138,706	239,945	923,669	—	3,340,048
PPP:									
Pass	1,841,376	—	—	—	—	—	—	—	1,841,376
Total business	3,710,297	738,844	686,371	663,857	440,051	1,530,867	8,926,655	—	16,696,942
Other									
Stock secured:									
Pass	20,783	882	25,756	205	—	—	2,470,712	—	2,518,338
Other secured:									
Pass	179,137	190,061	143,802	109,910	55,736	38,209	1,067,340	24,504	1,808,699
Special mention	6,091	—	—	—	—	—	3,637	—	9,728
Substandard	—	—	—	100	—	—	—	—	100
Doubtful	—	—	—	—	—	23	—	—	23
	185,228	190,061	143,802	110,010	55,736	38,232	1,070,977	24,504	1,818,550
Unsecured:									
Pass	446,984	674,752	642,212	385,786	285,034	64,793	599,873	—	3,099,434
Special mention	—	—	—	—	—	—	1,156	—	1,156
Substandard	677	1,490	3,642	1,755	2,735	257	1,081	—	11,637
Doubtful	62	—	188	—	47	148	595	—	1,040
	447,723	676,242	646,042	387,541	287,816	65,198	602,705	—	3,113,267
Total other	653,734	867,185	815,600	497,756	343,552	103,430	4,144,394	24,504	7,450,155
Total	$33,894,570	$20,198,901	$12,596,537	$11,060,350	$7,937,558	$10,893,350	$15,900,374	$84,625	$112,566,265

The following table presents loan balances by credit quality indicator:

($ in thousands)	Pass	Special Mention	Substandard	Doubtful	Total
At December 31, 2019 [1]					
Residential real estate					
Single family	$47,830,280	$44,066	$111,305	$ —	$47,985,651
Home equity lines of credit	2,469,238	9,215	22,979	—	2,501,432
Single family construction	749,420	3,413	8,756	—	761,589
Total residential real estate	51,048,938	56,694	143,040	—	51,248,672
Income property					
Multifamily	12,353,359	—	—	—	12,353,359
Commercial real estate	7,440,460	4,687	3,911	—	7,449,058
Multifamily/commercial construction	1,627,098	—	68,856	—	1,695,954
Total income property	21,420,917	4,687	72,767	—	21,498,371
Business					
Capital call lines of credit	5,570,322	—	—	—	5,570,322
Tax-exempt	3,033,534	—	8,659	—	3,042,193
Other business	3,006,382	18,906	8,547	466	3,034,301
Total business	11,610,238	18,906	17,206	466	11,646,816
Other					
Stock secured	1,897,259	252	—	—	1,897,511
Other secured	1,431,082	250	2,044	23	1,433,399
Unsecured	3,061,106	1,563	8,180	1,213	3,072,062
Total other	6,389,447	2,065	10,224	1,236	6,402,972
Total	$90,469,540	$82,352	$243,237	$1,702	$90,796,831

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

The following table presents revolving lines of credit that converted to term loans without an additional credit decision during the period indicated:

($ in thousands)	Year Ended December 31, 2020
Residential real estate	
Home equity lines of credit	$18,739
Other	
Other secured	14,022
Total	$32,761

Allowance for Credit Losses on Loans for the Year Ended December 31, 2020

The Bank estimates its ACL using quantitative models, expert judgment, qualitative factors and individual assessments. The Bank's estimate incorporates individual loan and/or property level characteristics, macroeconomic forecasts and historical loss rates to determine expected credit losses over the life of its loans. Loans with similar risk characteristics within each class are pooled when developing the allowance, and loans that do not share similar risk characteristics are individually assessed. As of December 31, 2020, of the total ACL on loans of $635.0 million, the portion of the ACL on loans that was attributable to loans with similar risk characteristics was $584.5 million. The following is a discussion of the models, expert judgment and individual assessments the Bank uses to determine its ACL.

Quantitative Models

For residential real estate, income property, tax-exempt business, and other business loans, expected credit losses are determined by PD/LGD models. For other secured and certain unsecured loans, expected credit losses are determined by loss rate models.

The quantitative models incorporate forward-looking macroeconomic information over a reasonable and supportable period of two years, and a reversion period of one year, after which the Bank reverts to its historical loss rate for the remaining life of the loan. These models also account for prepayments (or repayments) during the life of the loan. The Bank currently uses a single macroeconomic scenario in estimating expected credit losses. On a quarterly or more frequent basis, the Bank's Economic Forecast Committee discusses and approves the macroeconomic forecast scenario used for these models and determines whether any changes to the reasonable and supportable period, as well as reversion period, are necessary.

During the reasonable and supportable period, the quantitative models determine estimated loss amounts based on the macroeconomic forecast scenario, contractual maturity dates, prepayment (or repayment) projections and, in most cases, loan specific risk characteristics. Prepayment (or repayment) projections are either developed based on historical experience or modeled using the macroeconomic forecast scenario, contractual maturity dates, and loan specific risk characteristics. Macroeconomic forecasts include various factors, but the most impactful to our loan portfolios are residential home price indices, commercial real estate price indices, apartment price indices, unemployment rates, and interest rates, which impact prepayment (or repayment) estimates.

For PD/LGD models, loan specific risk characteristics include LTV and credit scores for residential real estate, LTV and debt service coverage ratios for income property loans and tax-exempt business loans, and risk grade and past due status for other business loans. PD/LGD models estimate the likelihood that a loan will default and measure the loss the Bank would incur if that loan defaults. Estimated losses are calculated using the product of PD and LGD to produce a loss rate. For other secured and certain unsecured loans, the loss rate models use the relationship between historical losses, historical macroeconomic factors, and forward-looking macroeconomic information to determine an expected loss rate.

Subsequent to the reasonable and supportable period, the Bank reverts to its historical loss rate and historical prepayment (or repayment) speed on a straight-line basis over the reversion period of one year.

After the reversion period, the Bank's historical loss rate and historical prepayment (or repayment) speed are used to estimate expected credit losses for the remaining life of the loan. These rates are based on the average net charge-offs and average prepayment (or repayment) speeds, respectively, over a ten year historical period for all loans except tax-exempt business loans, for which a 15-year historical period is used.

Expert Judgment

For capital call lines of credit and the majority of unsecured loans, expected credit losses are determined by expert judgment. The Bank uses expert judgment to estimate credit losses for these loan types because a quantitative model would not appropriately reflect the specific loan characteristics or other factors that could result in loan losses, specifically, idiosyncratic risks or risks related to newer loan products, not already reflected in the historical loss experience. Expected loan losses are based on credit attributes specific to each loan type. For capital call lines of credit, such attributes used to estimate a lifetime loss rate include loan commitment size and expected line utilization. For unsecured loans, such attributes include external publicly available credit metrics for similar products.

Qualitative Factors

The Bank also maintains a portion of the overall allowance that is comprised of adjustments to historical loss information resulting from asset-specific risk characteristics and current economic conditions. These adjustments are developed using a systematic methodology and are based on qualitative factors that are not reflected in the quantitative models or expert judgment, but are likely to impact the measurement of estimated credit losses. The qualitative factors are evaluated on a portfolio by portfolio basis and are intended to address considerations including, but not limited to: the nature and volume of the Bank's loan portfolio changes, the existence and effects of credit concentrations, problem loan trends, lending policies and procedures, and other external factors, such as competition and the legal and regulatory environment.

Individually Assessed Stock Secured Loans

The Bank applies the collateral maintenance practical expedient to estimate credit losses on its stock secured loan portfolio. Since the underlying collateral is required to be continually adjusted to maintain a fair value greater than or equal to the loan's amortized cost, no expected credit losses are recognized unless the fair value of the collateral is less than the amortized cost of the loan. Expected credit losses are measured at the individual loan level on the excess of amortized cost over the fair value of the collateral.

Other Individually Assessed Loans

Loans that do not share similar risk characteristics with the other loans in their class are not pooled, but are individually assessed. Nonaccrual loans or loans modified in a TDR are generally individually assessed for expected credit losses. Certain loans modified as a result of COVID-19 are also individually assessed. The following discussion describes the Bank's individually assessed loans.

Collateral Dependent Loans: The Bank considers loans (1) for which the repayment is expected to be provided substantially through the operation or sale of collateral and the borrower is experiencing financial difficulty, or (2) where foreclosure is probable to be collateral dependent. Expected credit losses are measured at the individual loan level. If the fair value of the collateral, net of selling costs, is less than the loan's amortized cost, the Bank recognizes expected credit losses in the amount of the difference. At December 31, 2020, the Bank's collateral dependent loans were primarily secured by residential real estate and single family homes in construction.

TDR Loans: The Bank grants concessions in TDRs when a borrower is experiencing financial difficulties. TDR loans that are collateral dependent follow the assessment described under "Collateral Dependent Loans" above. For TDR loans that are not collateral dependent, expected credit losses are measured at the individual loan level and are based on expected future cash flows. If the present value of expected future cash flows, discounted at the loan's effective interest rate, is less than the loan's amortized cost, the Bank recognizes expected credit losses in the amount of the difference.

Criticized or Classified Loans and Certain COVID-19 Loan Modifications: For criticized or classified loans (that are not collateral dependent or TDRs) and certain COVID-19 loan modifications, expected credit losses are also individually assessed based on consideration of individual risk characteristics that affect the collectability of the loan but are not reflected in the quantitative model.

PPP Loans

Loans originated by the Bank under the PPP are 100% guaranteed by the SBA. Due to this explicit guarantee, PPP loans are considered not to have any expected credit losses. Therefore, no ACL has been recognized on these loans.

Provision for Credit Losses

The following table presents information related to the provision for credit losses:

	Year Ended December 31,		
($ in thousands)	**2020**	**2019**	**2018**
Provision for credit losses:			
Debt securities held-to-maturity [1]	$ 2,233	$ —	$ —
Loans	142,977	61,690	76,092
Unfunded loan commitments [2]	11,881	—	—
Total	$157,091	$61,690	$76,092

(1) Refer to Note 3, "Investment Securities and Allowance for Credit Losses," for disclosures of the ACL on held-to-maturity debt securities.
(2) The provision for unfunded loan commitments is included in the provision for credit losses for 2020. For 2019 and 2018, the provision for unfunded loan commitments is included in other noninterest expense, which is not presented in this table.

Changes in the Allowance for Credit Losses on Loans for the Year Ended December 31, 2020

The ACL on loans increased during the year ended December 31, 2020 primarily due to loan growth, applying the CECL methodology, and an economic outlook reflecting the impact of COVID-19. There were no changes to the reasonable and supportable forecast period, the reversion period, or any significant methodology changes during the year ended December 31, 2020. The following table presents the changes in the ACL on loans:

($ in thousands)	At or for the Year Ended December 31, 2020				
	Balance at Beginning of Period [1]	Provision (Reversal of provision)	Charge-offs	Recoveries	Balance at End of Period
Residential real estate					
Single family	$101,532	$ 37,284	$(1,755)	$ 56	$137,117
Home equity lines of credit	9,070	(1,109)	(381)	459	8,039
Single family construction	4,801	(1,120)	(679)	679	3,681
Total residential real estate	115,403	35,055	(2,815)	1,194	148,837
Income property					
Multifamily	111,384	9,610	—	—	120,994
Commercial real estate	55,413	16,017	—	—	71,430
Multifamily/commercial construction	23,884	12,175	—	—	36,059
Total income property	190,681	37,802	—	—	228,483
Business					
Capital call lines of credit	66,844	23,139	—	—	89,983
Tax-exempt	29,678	10,074	—	—	39,752
Other business	56,471	11,541	(47)	106	68,071
PPP	—	—	—	—	—
Total business	152,993	44,754	(47)	106	197,806
Other					
Stock secured	—	—	—	—	—
Other secured	3,399	4,841	—	—	8,240
Unsecured	31,953	20,525	(1,149)	324	51,653
Total other	35,352	25,366	(1,149)	324	59,893
Total	$494,429	$142,977	$(4,011)	$1,624	$635,019

(1) Represents the ACL on loans after the transition adjustments from the adoption of CECL.

Allowance for Credit Losses on Unfunded Loan Commitments

To estimate the ACL on unfunded loan commitments, the Bank determines the probability of funding based on historical utilization statistics for unfunded loan commitments. Expected credit losses are determined based on the dollar amounts expected to fund, and the loss rates that are calculated using the same assumptions as the associated funded balance. For the year ended December 31, 2020, the loss rate represents expected credit losses over the life of the loans. For prior periods, the loss rate was based on an incurred historical loss factor. The ACL on unfunded loan commitments increased during the year ended December 31, 2020 primarily due to commitment growth, applying the CECL methodology, and an economic outlook reflecting the impact of COVID-19. The following table presents the changes in the ACL on unfunded loan commitments:

($ in thousands)	At or for the Year Ended December 31, 2020	2019	2018
Balance at beginning of period [1]	$15,697	$13,217	$14,200
Provision (reversal of provision) [2]	11,881	(1,188)	(983)
Charge-offs	—	—	—
Recoveries	—	—	—
Balance at end of period	$27,578	$12,029	$13,217

(1) For the year ended December 31, 2020, the beginning balance represents the ACL on unfunded loan commitments after the transition adjustments from the adoption of CECL.

(2) The provision for unfunded loan commitments is included in the provision for credit losses for 2020. For 2019 and 2018, the provision for unfunded loan commitments is included in other noninterest expense.

Allowance for Credit Losses on Loans for the Years Ended December 31, 2019 and 2018

The following discussion relates to the Bank's ACL on loans methodology effective prior to January 1, 2020.

Non-impaired loans

Non-impaired loans are collectively evaluated for estimated losses in accordance with ASC 450, based on groups of loans with similar risk characteristics that align with the loan portfolio segments. The Bank has maintained a quantitative allowance for loan loss model that computes loss factors for each segment based upon our historical losses during the look-back period, which is subject to adjustments for certain portfolio segments, and current portfolio trends that reflect losses the Bank expects over its loss emergence period. Non-impaired loans are monitored to determine if these loans have experienced a deterioration in credit quality based upon their payment status and loan grade. If a deterioration in credit quality has occurred, the Bank evaluates the estimated loss content in the individual loan as compared to the loan's current carrying value.

Impaired loans

Nonaccrual loans with a balance greater than or equal to $1 million or loans modified in a TDR are generally considered impaired. Any non-impaired loans that subsequently became impaired are evaluated under ASC 310-10-35. If determined necessary, a specific reserve will be recorded on these loans. These loans are generally evaluated quarterly by the Bank's Special Assets Committee, unless they have been upgraded to a pass loan. If there is further credit deterioration, an additional specific reserve will be recorded.

The Bank measures impairment of a loan that is collateral dependent based on the fair value of the underlying collateral, net of selling costs. For a loan that is not collateral dependent, the Bank measures impairment using the present value of expected future cash flows, discounted at the instrument's effective interest rate. If the fair value of the collateral or the present value of expected future cash flows is less than the recorded investment in the loan, the Bank recognizes impairment by recording a charge-off or creating a valuation allowance.

Qualitative factors

The Bank also maintains a qualitative reserve based on management's assessments of the risks that may lead to a loan loss experience different than our historical loss experience and therefore not reflected in the quantitative model. The qualitative factors are intended to address developing external and internal environmental trends and include considerations such as changes in current economic and business conditions, the nature and volume of the Bank's loan portfolio, the existence and effects of credit concentrations, problem loan trends, lending policies and procedures, and other external factors, such as competition and the legal and regulatory environment. The allocation to the individual loan portfolios considers the qualitative factors relevant to each portfolio, the degree to which the relevant qualitative factors impacted each loan portfolio, and relative portfolio balances.

The following tables present the changes in the ACL on loans:

	At or for the Year Ended December 31, 2019 [(1)]				
($ in thousands)	Balance at Beginning of Period	Provision (Reversal of provision)	Charge-offs	Recoveries	Balance at End of Period
Residential real estate					
Single family	$ 65,402	$11,604	$(1,018)	$ 237	$ 76,225
Home equity lines of credit	12,887	(167)	(539)	1,654	13,835
Single family construction	3,073	2,885	—	—	5,958
Total residential real estate	81,362	14,322	(1,557)	1,891	96,018
Income property					
Multifamily	79,640	25,480	—	—	105,120
Commercial real estate	54,604	6,225	—	—	60,829
Multifamily/commercial construction	15,484	498	—	—	15,982
Total income property	149,728	32,203	—	—	181,931
Business					
Capital call lines of credit	63,227	16,803	—	—	80,030
Tax-exempt	42,111	(9,283)	—	—	32,828
Other business	62,253	2,930	(3,389)	91	61,885
Total business	167,591	10,450	(3,389)	91	174,743
Other					
Stock secured	8,724	(8,724)	—	—	—
Other secured	8,301	1,205	(1,229)	—	8,277
Unsecured	23,342	12,234	(866)	425	35,135
Total other	40,367	4,715	(2,095)	425	43,412
Total	$439,048	$61,690	$(7,041)	$2,407	$496,104

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

($ in thousands)	At or for the Year Ended December 31, 2018 [1]				
	Balance at Beginning of Period	Provision (Reversal of provision)	Charge-offs	Recoveries	Balance at End of Period
Residential real estate					
Single family	$ 52,011	$13,553	$ (239)	$ 77	$ 65,402
Home equity lines of credit	13,046	228	(497)	110	12,887
Single family construction	2,758	315	—	—	3,073
Total residential real estate	67,815	14,096	(736)	187	81,362
Income property					
Multifamily	67,241	12,399	—	—	79,640
Commercial real estate	51,962	2,642	—	—	54,604
Multifamily/commercial construction	11,183	4,301	—	—	15,484
Total income property	130,386	19,342	—	—	149,728
Business					
Capital call lines of credit	32,070	31,157	—	—	63,227
Tax-exempt	38,616	3,495	—	—	42,111
Other business	67,270	(3,534)	(1,748)	265	62,253
Total business	137,956	31,118	(1,748)	265	167,591
Other					
Stock secured	6,596	2,128	—	—	8,724
Other secured	7,850	451	—	—	8,301
Unsecured	15,329	8,957	(1,074)	130	23,342
Total other	29,775	11,536	(1,074)	130	40,367
Total	$365,932	$76,092	$(3,558)	$582	$439,048

[1] For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

Impaired Loans

The following tables present information related to impaired loans:

($ in thousands)	Total		With no related allowance recorded		With an allowance recorded		
	Recorded Investment	Unpaid Principal Balance	Recorded Investment	Unpaid Principal Balance	Recorded Investment	Unpaid Principal Balance	Related Allowance
At December 31, 2019 [1]							
Single family	$ 65,750	$ 65,815	$ 65,211	$ 65,276	$ 539	$ 539	$ 9
Home equity lines of credit	10,340	10,372	10,340	10,372	—	—	—
Multifamily	10,389	10,394	10,389	10,394	—	—	—
Commercial real estate	4,500	4,500	—	—	4,500	4,500	112
Multifamily/commercial construction	68,856	68,856	68,856	68,856	—	—	—
Other business	6,884	6,884	5,926	5,926	958	958	1
Unsecured	197	196	197	196	—	—	—
Total	$166,916	$167,017	$160,919	$161,020	$5,997	$5,997	$122

[1] For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

($ in thousands)	Year Ended December 31, 2019 [(1)] Average Recorded Investment	2019 [(1)] Interest Income Recognized	2018 [(1)] Average Recorded Investment	2018 [(1)] Interest Income Recognized
Single family	$ 50,758	$ 829	$26,109	$ 474
Home equity lines of credit	11,575	173	12,854	298
Multifamily	11,123	621	14,542	525
Commercial real estate	5,863	268	8,255	407
Multifamily/commercial construction	37,626	—	—	—
Other business	8,347	166	14,205	1,171
Unsecured	255	142	560	24
Total	$125,547	$2,199	$76,525	$2,899

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

Troubled Debt Restructurings

The Bank restructures loans generally because of the borrower's financial difficulties by granting concessions to reduce the interest rate or to defer payments. Loans that have been modified in TDRs are generally reported as nonaccrual loans until at least six consecutive payments are received and the loan meets the Bank's other criteria for returning to accrual status. The following table presents loans modified in TDRs:

($ in thousands)	At December 31, 2020 Restructured - Nonaccrual	At December 31, 2020 Restructured - Accruing	At December 31, 2020 Total	At December 31, 2019 [(1)] Restructured - Nonaccrual	At December 31, 2019 [(1)] Restructured - Accruing	At December 31, 2019 [(1)] Total
Residential real estate						
Single family	$ 45,603	$ 5,737	$ 51,340	$ 27,726	$ 6,441	$ 34,167
Home equity lines of credit	12,990	10	13,000	5,045	1,045	6,090
Total residential real estate	58,593	5,747	64,340	32,771	7,486	40,257
Income property						
Commercial real estate	1,200	4,709	5,909	—	4,712	4,712
Multifamily/commercial construction	57,843	—	57,843	68,856	—	68,856
Total income property	59,043	4,709	63,752	68,856	4,712	73,568
Business						
Other business	3,670	797	4,467	1,202	1,089	2,291
Total	$121,306	$11,253	$132,559	$102,829	$13,287	$116,116

(1) For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

During the years ended December 31, 2020, 2019 and 2018, TDRs were primarily modified through payment deferrals, extensions of the maturity date or reductions in interest rate, both temporary and permanent. The following table presents loans modified in TDRs during the periods indicated:

($ in thousands)	Year Ended December 31, 2020	2019 [1]	2018 [1]
Residential real estate			
Single family	$ 42,778	$ 28,517	$ 6,361
Home equity lines of credit	12,231	3,638	4,573
Total residential real estate	55,009	32,155	10,934
Income property			
Commercial real estate	1,201	—	—
Multifamily/commercial construction	58,135	70,940	—
Total income property	59,336	70,940	—
Business			
Other business	4,459	—	3,899
Total	$118,804	$103,095	$14,833

[1] For comparability, the Bank has adjusted certain prior period amounts to conform to the current period presentation under CECL.

For the year ended December 31, 2020, TDRs that were modified in the previous twelve months and for which there was a payment default totaled $66.0 million. These restructured loans primarily include one lending relationship totaling $61.9 million, which consists of single family loans and non-owner occupied single family construction loans. The ACL on these loans is individually assessed at the loan level, and is based on the collateral dependent methodology. No loans defaulted during the years ended December 31, 2019 and 2018 that were modified in the previous twelve months.

COVID-19 Loan Modifications

As discussed in Note 1, loan modifications to assist borrowers who are experiencing financial difficulties as a result of COVID-19 generally include deferring scheduled principal and/or interest payments for six months. For certain loans, the maturity of the loan may also be extended to allow for monthly payments to remain the same as they were pre-modification. Certain borrowers may receive additional relief beyond their initial modification period. The unpaid principal balance of such loan modifications (which are not classified as TDRs) totaled $1.3 billion, and were 1.1% of total loans as of December 31, 2020. In addition, as of December 31, 2020, deferred interest related to these modifications was $7.2 million.

Note 5. Mortgage Banking Activities

MSRs are reported at the lower of amortized cost or fair value. The recorded value of MSRs is amortized in proportion to, and over the period of, estimated net servicing income. The Bank values MSRs by stratifying loans by the year they are sold, by product type (fixed, hybrid or adjustable) and interest rate coupon range. Hybrid loans are further stratified by their initial fixed-rate period.

The following table presents information on the level of loans originated, loans sold and gain on sale of loans:

	Year Ended December 31,		
($ in thousands)	2020	2019	2018
Total loans originated	$52,683,646	$37,963,476	$31,443,189
Single family loans originated	$23,985,959	$16,405,784	$10,784,654
Loans sold:			
Flow sales:			
Agency	$ 232,912	$ 85,945	$ 42,081
Non-agency	31,870	50,983	172,077
Total flow sales	264,782	136,928	214,158
Bulk sales:			
Non-agency	673,401	152,119	773,041
Securitizations	300,116	—	251,931
Total loans sold	$ 1,238,299	$ 289,047	$ 1,239,130
Gain on sale of loans:			
Amount [1]	$ 16,987	$ 535	$ 5,616
Gain as a percentage of loans sold [1]	1.37%	0.19%	0.45%

(1) The gain for the year ended December 31, 2020 included $10.3 million related to realized discounts on previously purchased loans when these loans were sold. Excluding these discounts of $10.3 million, the gain as a percentage of loans sold was 0.54% for the year ended December 31, 2020.

The following table presents changes in the portfolio of loans serviced for others and changes in the carrying value of the Bank's MSRs and valuation statistics:

($ in thousands)	At or for the Year Ended December 31, 2020	2019	2018
Loans serviced for others:			
Beginning balance	$ 9,297,972	$11,573,326	$12,495,321
Loans sold	1,238,299	289,047	1,239,130
Repayments	(3,045,541)	(2,547,973)	(1,882,719)
Loans purchased	(396,509)	(16,428)	(278,406)
Ending balance	$ 7,094,221	$ 9,297,972	$11,573,326
MSRs:			
Beginning balance	$ 41,720	$ 54,470	$ 66,139
Additions due to new loans sold	8,585	2,531	6,126
Amortization expense	(13,196)	(13,352)	(16,785)
Provision for valuation allowance	(8,921)	(1,864)	—
Reversal of valuation allowance	85	1	—
Reductions due to purchases	(2,275)	(66)	(1,010)
Ending balance	$ 25,998	$ 41,720	$ 54,470
Estimated fair value of MSRs	$ 31,368	$ 57,891	$ 95,205
MSRs as a percent of loans serviced	0.37%	0.45%	0.47%
Weighted average servicing fee collected for the period	0.25%	0.25%	0.25%
MSRs as a multiple of weighted average servicing fee	1.49x	1.82x	1.88x

The following table presents changes in the valuation allowance for MSRs:

($ in thousands)	At or for the Year Ended December 31, 2020	2019	2018
Valuation allowance:			
Beginning balance	$ 1,862	$ —	$—
Provision	8,921	1,864	—
Reversal to income due to increase in fair value	(85)	(1)	—
Write-down due to permanent impairment	(10,369)	(1)	—
Ending balance	$ 329	$1,862	$—

The following table presents loan servicing fees:

($ in thousands)	Year Ended December 31, 2020	2019	2018
Contractually specified servicing fees	$20,631	$26,563	$30,087
Late charges and ancillary fees, net of costs	$ (1,793)	$ (1,691)	$ (746)

During the year ended December 31, 2020, the Bank sold $300.1 million of originated single family loans through a securitization. These loans are included in the Bank's servicing portfolio, since the Bank performs servicing of the loans.

The following table presents the Bank's key assumptions used in measuring the fair value of MSRs and the pre-tax sensitivity of the fair values to an immediate 10% and 20% adverse change in these assumptions:

($ in thousands)	December 31, 2020	December 31, 2019
Fair value of MSRs	$31,368	$57,891
Weighted average prepayment speed (CPR)	24.5%	18.8%
Impact on fair value of 10% adverse change	$ (2,513)	$ (3,343)
Impact on fair value of 20% adverse change	$ (4,750)	$ (6,399)
Weighted average discount rate	12.1%	12.7%
Impact on fair value of 10% adverse change	$ (765)	$ (1,899)
Impact on fair value of 20% adverse change	$ (1,494)	$ (3,678)

The sensitivity analysis above is hypothetical and should be used with caution. In particular, the effect of a variation in a particular assumption on the fair value of MSRs is calculated independent of changes in any other assumption; in practice, changes in one factor may result in changes in another factor, which may magnify or counteract the sensitivities. Further changes in fair value based on a single variation in assumptions generally cannot be extrapolated because the relationship of the change in a single assumption to the change in fair value may not be linear.

Refer to Note 11, "Goodwill and Intangible Assets," for disclosures of the gross carrying value, accumulated amortization, valuation allowance, carrying value and estimated future amortization expense of MSRs.

Note 6. Variable Interest Entities

The Bank's involvement with VIEs includes its interests in tax credit investments, other investments and securitizations. The Bank consolidates a VIE when it is the primary beneficiary. The Bank is the primary beneficiary if it has a controlling financial interest, which includes both the power to direct the activities that most significantly impact the VIE and a variable interest that could potentially be significant to the VIE.

During the year ended December 31, 2020, the Bank sold $300.1 million of originated single family loans through a securitization in which the Bank was the sponsor. A securitization trust was created to purchase the loans and issue the securities in this securitization. The Bank has a variable interest in the securitization trust related to its retention of a 5% interest in the investment securities issued in the securitization. The retained investments, which had a carrying value of $13.5 million as of December 31, 2020, consist of senior and subordinated tranches and an interest-only strip, and are classified as either available-for-sale or held-to-maturity debt securities. Since the Bank is not the primary beneficiary of the VIE, it does not consolidate this interest.

The Bank has variable interests in low-income housing tax credit funds that are designed to generate a return primarily through the realization of federal tax credits. These investments are typically limited partnerships in which the general partner, other than the Bank, holds the power over significant activities of the VIE. Since the Bank is not the primary beneficiary of these investments, it does not consolidate these interests.

In addition, the Bank has variable interests in other investments, which are accounted for under the equity method. Since the Bank is not the primary beneficiary of these investments, it does not consolidate these investments.

The Bank has a variable interest related to its reimbursement obligation to Freddie Mac for certain losses from the securitization of multifamily loans. Since the Bank is not the primary beneficiary of the VIE, it does not consolidate this interest.

The following table summarizes the assets and liabilities recorded on the Bank's balance sheet associated with transactions with VIEs:

	VIEs		
($ in thousands)	**Not consolidated**	**Consolidated**	**Total**
December 31, 2020			
Assets:			
Debt securities	$ 13,502	$—	$ 13,502
Tax credit investments	1,131,905	—	1,131,905
Other investments	60,034	—	60,034
Total Assets	1,205,441	—	1,205,441
Liabilities:			
Reimbursement obligation	20	—	20
Unfunded commitments—tax credit investments	399,665	—	399,665
Unfunded commitments—other investments	16,858	—	16,858
Total Liabilities	416,543	—	416,543
Net Assets	$ 788,898	$—	$ 788,898
December 31, 2019			
Assets:			
Tax credit investments	$1,100,509	$—	$1,100,509
Other investments	61,579	—	61,579
Total Assets	1,162,088	—	1,162,088
Liabilities:			
Reimbursement obligation	254	—	254
Unfunded commitments—tax credit investments	374,004	—	374,004
Unfunded commitments—other investments	21,845	—	21,845
Total Liabilities	396,103	—	396,103
Net Assets	$ 765,985	$—	$ 765,985

The Bank's exposure to loss with respect to VIEs that are not consolidated includes the Bank's investment in these assets of $1.2 billion at both December 31, 2020 and 2019. The Bank's exposure to loss related to the reimbursement obligation is 12% of the multifamily loans securitized in 2018, or $30.2 million at both December 31, 2020 and 2019.

Note 7. Tax Credit Investments

The Bank invests in low income housing tax credit funds that are designed to generate a return primarily through the realization of federal tax credits and tax losses from partnerships. The cost of tax credit investments is amortized over the life of the investment using a proportional amortization method and tax credit investment amortization expense is a component of provision for income taxes.

The following table presents the balances of the Bank's tax credit investments and related unfunded commitments:

($ in thousands)	December 31, 2020	December 31, 2019
Tax credit investments	$1,131,905	$1,100,509
Unfunded commitments—tax credit investments	$ 399,665	$ 374,004

The unfunded commitments related to tax credit investments are estimated to be funded as follows:

($ in thousands)	December 31, 2020
Unfunded commitments—tax credit investments:	
2021	$163,928
2022	109,741
2023	45,298
2024	20,105
2025	4,324
2026 and thereafter	56,269
Total	$399,665

The following table presents other information related to the Bank's tax credit investments:

($ in thousands)	Year Ended December 31, 2020	2019	2018
Tax credits and other tax benefits recognized	$186,824	$168,901	$159,228
Tax credit amortization expense included in provision for income taxes	$155,719	$139,203	$131,911

The Bank did not recognize any impairment losses on tax credit investments during 2020, 2019 or 2018.

Note 8. Other Assets

Other assets are summarized in the table below:

($ in thousands)	December 31, 2020	December 31, 2019
Lease assets	$ 951,971	$ 787,464
DTAs	458,908	391,781
Interest receivable	430,586	381,560
FHLB stock, at cost	354,339	367,943
MSRs	25,998	41,720
Other	879,201	662,929
Total	$3,101,003	$2,633,397

Dividend income on FHLB stock was $23.9 million in 2020, compared to $21.4 million in 2019 and $25.2 million in 2018. The dividend income in 2018 includes special dividends from the FHLB of $4.8 million.

Refer to Note 9, "Leases," for further discussion on lease assets.

Refer to Note 5, "Mortgage Banking Activities," for further discussion on MSRs.

Note 9. Leases

The Bank primarily leases corporate, preferred banking and wealth management offices, as well as equipment. The Bank's lease terms range from 1 year to 21 years. The majority of our office leases include one or more options to extend the lease term, primarily up to 5 years at a time. The Bank includes renewal options when measuring the lease liability if it is reasonably certain to exercise the option during the lease term.

Operating lease expense for lease payments is recognized on a straight-line basis over the lease term. Some of the Bank's lease arrangements include rental payments that adjust periodically for inflation. These and other variable lease payments are expensed as incurred.

The following tables present information related to leases. Prior to the adoption of ASC 842 effective January 1, 2019, rent and related occupancy expense, net of sublease income, was $95.0 million in 2018.

	December 31,	
($ in thousands)	2020	2019
Supplemental balance sheet information:		
Lease assets [1]	$ 951,971	$ 787,464
Lease liabilities [2]	$ 995,115	$ 811,541
Weighted average remaining lease term	9.9 years	10.2 years
Weighted average discount rate	2.7%	3.1%

(1) Included in other assets on the consolidated balance sheets.
(2) Included in other liabilities on the consolidated balance sheets.

	Year Ended December 31,	
($ in thousands)	2020	2019
Components of lease cost:		
Operating lease cost [1]	$130,398	$114,470
Variable lease cost [1]	370	590
Total lease cost	$130,768	$115,060

(1) Included in occupancy expense on the consolidated statements of income and comprehensive income.

	Year Ended December 31,	
($ in thousands)	2020	2019
Supplemental cash flow information:		
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflows from operating leases	$118,742	$100,084
Non-cash activity related to lease assets:		
Lease assets obtained from new operating lease liabilities	$274,256	$272,525

The following table presents the future maturities of lease liabilities:

($ in thousands)	December 31, 2020 [1]
Lease liabilities maturing in:	
2021	$ 137,216
2022	133,268
2023	129,686
2024	124,549
2025	108,785
2026 and thereafter	562,079
Total	1,195,583
Less: imputed interest	(160,043)
Less: tenant improvement receivable	(40,425)
Total lease liabilities	$ 995,115

[1] Excludes $689.4 million of undiscounted minimum lease payments for leases signed but not yet commenced. These leases will commence at various dates from 2021 through 2025 with lease terms ranging from 8 to 16 years.

Note 10. Premises, Equipment and Leasehold Improvements

Premises, equipment and leasehold improvements are summarized in the table below:

	December 31, 2020			December 31, 2019		
($ in thousands)	Cost	Accumulated Depreciation and Amortization	Carrying Value	Cost	Accumulated Depreciation and Amortization	Carrying Value
Land, buildings and improvements	$ 2,795	$ (1,205)	$ 1,590	$ 2,795	$ (1,183)	$ 1,612
Furniture and equipment	259,675	(183,120)	76,555	238,629	(163,630)	74,999
Leasehold improvements	365,105	(204,986)	160,119	333,066	(176,792)	156,274
Software	364,540	(199,322)	165,218	288,278	(134,322)	153,956
Premises, equipment and leasehold improvements, net	$992,115	$(588,633)	$403,482	$862,768	$(475,927)	$386,841

Depreciation and amortization expense was $125.1 million in 2020, $110.9 million in 2019 and $97.0 million in 2018.

Refer to Note 9, "Leases," for further discussion on rent and related occupancy expense and future minimum lease payments under the Bank's operating leases.

Note 11. Goodwill and Intangible Assets

The following table presents the Bank's intangible assets (excluding MSRs) and goodwill:

	December 31,					
	2020			2019		
($ in thousands)	Gross Carrying Value	Accumulated Amortization	Carrying Value	Gross Carrying Value	Accumulated Amortization	Carrying Value
Intangible assets:						
Customer relationship intangibles	$133,100	$(120,104)	$ 12,996	$133,100	$(112,600)	$ 20,500
Core deposit intangibles	87,550	(87,550)	—	87,550	(87,297)	253
Trade name	42,900	—	42,900	42,900	—	42,900
Intangible assets	$263,550	$(207,654)	55,896	$263,550	$(199,897)	63,653
Goodwill			171,616			171,616
Total			$227,512			$235,269

Amortization of intangible assets (excluding MSRs) was $7.8 million in 2020, $11.9 million in 2019 and $16.2 million in 2018.

The following table presents the Bank's MSRs:

	December 31,							
	2020				2019			
($ in thousands)	Gross Carrying Value	Accumulated Amortization	Valuation Allowance	Carrying Value	Gross Carrying Value	Accumulated Amortization	Valuation Allowance	Carrying Value
MSRs [1]	$135,453	$(109,126)	$(329)	$25,998	$137,576	$(93,994)	$(1,862)	$41,720

[1] Amortization of MSRs is included in loan servicing fees, net on the consolidated statements of income and comprehensive income.

Refer to Note 5, "Mortgage Banking Activities," for further discussion on MSRs.

The following table presents goodwill by business segment:

($ in thousands)	Commercial Banking	Wealth Management	Total
Balance as of December 31, 2018	$ 51,435	$ 147,012	$ 198,447
Reduction due to Gradifi sale	(26,831)	—	(26,831)
Balance as of December 31, 2019 and 2020	$ 24,604	$ 147,012	$ 171,616

The Bank is required to test goodwill for impairment at least annually at the reporting unit level. The Bank did not recognize any impairment in 2020, 2019 or 2018 based on the results of the annual test.

The following table presents the estimated future amortization for amortizable intangible assets as of December 31, 2020. The projections of amortization expense are based on existing asset balances as of December 31, 2020. Future amortization expense may vary from these projections.

($ in thousands)	Customer relationship intangibles	MSRs
2021	$ 5,531	$ 9,099
2022	$ 3,666	$ 5,408
2023	$ 2,235	$ 3,218
2024	$ 1,259	$ 2,068
2025	$ 305	$ 1,551

Note 12. Deposits

Total deposits were $114.9 billion at December 31, 2020, and were comprised of noninterest-bearing deposits of $46.3 billion and interest-bearing deposits of $68.6 billion. At December 31, 2019, total deposits were $90.1 billion, and consisted of noninterest-bearing deposits of $33.1 billion and interest-bearing deposits of $57.0 billion. Total deposits included $1.1 billion of brokered deposits at December 31, 2020, compared to $2.9 billion at December 31, 2019. The weighted average contractual rate paid on brokered deposits was 0.07% and 1.89% at December 31, 2020 and 2019, respectively.

At December 31, 2020, the annual contractual maturities of the Bank's CDs were as follows:

($ in thousands)	December 31, 2020
CDs maturing in:	
2021	$ 7,685,816
2022	657,777
2023	120,835
2024	136,876
2025	69,319
2026 and thereafter	10,438
Total	$ 8,681,061

At December 31, 2020, CDs of greater than $250,000 totaled $4.5 billion, or 4% of total deposits, compared to $5.8 billion, or 6% of total deposits, at December 31, 2019.

The following table presents interest expense on deposits:

($ in thousands)	Year Ended December 31, 2020	2019	2018
Interest-bearing checking	$ 16,186	$ 30,318	$ 21,892
Money market checking	55,699	124,634	68,597
Money market savings and passbooks	32,209	71,948	39,693
CDs	171,991	273,657	159,858
Total	$ 276,085	$ 500,557	$ 290,040

Note 13. Borrowings

The Bank uses FHLB advances primarily as a funding source for long-term debt, and, in certain cases, for short-term borrowings. Other sources of funding include federal funds purchased, senior notes and subordinated notes. Short-term borrowings have an original maturity of one year or less. Long-term debt has an original maturity in excess of one year. The following table presents the carrying values, interest expense and components of short-term borrowings and long-term debt:

	Carrying Values		Interest Expense		
	December 31,		Year Ended December 31,		
($ in thousands)	2020	2019	2020	2019	2018
Short-term borrowings:					
Federal funds purchased	$ —	$ 450,000	$ 1,135	$ 12,490	$ 1
FHLB advances	—	350,000	3,565	37,871	15,276
Other	—	—	4	—	—
Total [1]	—	800,000	4,704	50,361	15,277
Long-term debt:					
FHLB advances	11,755,000	12,200,000	250,031	209,816	165,081
Senior notes [2]	996,145	497,719	22,873	18,169	23,709
Subordinated notes [2]	778,313	777,885	36,428	36,409	36,391
Total	13,529,458	13,475,604	309,332	264,394	225,181
Total borrowings	$ 13,529,458	$ 14,275,604	$ 314,036	$ 314,755	$ 240,458

(1) At December 31, 2020, the Bank had no short-term borrowings. At December 31, 2019, the weighted average interest rate of our short-term borrowings, which consisted of federal funds purchased and short-term FHLB advances, was 1.27%.

(2) Carrying value represents the principal balance, net of unamortized issuance discounts and deferred issuance costs. Interest expense includes amortization of issuance discounts and deferred issuance costs, which are amortized over the contractual or estimated life using a level yield methodology.

FHLB Advances

FHLB advances may be either adjustable-rate in nature or fixed for a specific term. At December 31, 2020, the Bank had no short-term FHLB advances. At December 31, 2020, all of the long-term FHLB advances were fixed-rate for a specific term. At December 31, 2020, the contractual maturities and weighted average contractual rates of long-term FHLB advances were as follows:

	December 31, 2020	
($ in thousands)	Amount	Rate
FHLB advances maturing in:		
2021	$ 5,155,000	1.78%
2022	2,900,000	1.55%
2023	1,225,000	0.77%
2024	1,275,000	1.26%
2025	800,000	0.88%
2026 and thereafter	400,000	0.65%
Total	$ 11,755,000	1.46%

For the year ended December 31, 2020, prepayment penalties for FHLB advances, which are included in other noninterest expense, were $26.8 million. There were no prepayment penalties for the years ended December 31, 2019 or 2018.

In connection with outstanding FHLB advances, the Bank owned FHLB stock of $354.3 million and $367.9 million at December 31, 2020 and 2019, respectively. At December 31, 2020 and 2019, the Bank was required to own FHLB stock at least equal to 2.7% of outstanding FHLB advances.

Senior Notes and Subordinated Notes

The following table presents the principal balances, carrying values, coupon rates, optional redemption dates and maturity dates of the Bank's unsecured, term, fixed-rate senior notes, fixed-to-floating rate senior notes, and fixed-rate subordinated notes as of December 31, 2020. In February 2020, the Bank completed an underwritten public offering of $500.0 million of 1.912% unsecured senior fixed-to-floating rate notes due 2024.

	December 31, 2020				
($ in thousands)	Principal Balance	Carrying Value [1]	Rate	Optional Redemption Date [2]	Maturity Date [3]
Senior notes:					
Fixed-rate, issued June 2017	$500,000	$498,639	2.500%	May 6, 2022	June 6, 2022
Fixed-to-floating rate, issued February 2020	$500,000	$497,506	1.912% [4]	February 12, 2023	February 12, 2024
Subordinated notes:					
Fixed-rate, issued August 2016	$400,000	$388,279	4.375%	February 1, 2046	August 1, 2046
Fixed-rate, issued February 2017	$400,000	$390,034	4.625%	August 13, 2046	February 13, 2047

(1) Principal balance, net of unamortized issuance discounts and deferred issuance costs.
(2) The Bank has the option to redeem these notes prior to their maturity at the dates specified.
(3) Unless previously redeemed, the notes will mature at the dates specified.
(4) Interest is paid at a fixed rate of 1.912% per annum from February 12, 2020 through February 12, 2023, and is paid based on a floating rate of compounded SOFR plus 0.620% beginning February 12, 2023.

Available Borrowing Capacity

Our unused, available borrowing capacity at the FHLB and the Federal Reserve Bank discount window at December 31, 2020 was $34.8 billion and $4.6 billion, respectively. This available borrowing capacity is supported by pledged loans at the FHLB and investment securities at the Federal Reserve Bank.

Note 14. Derivative Financial Instruments

The Bank has freestanding derivative assets and liabilities and currently does not have any derivatives designated as hedging instruments. The Bank recognizes all derivatives on the balance sheet at fair value, with changes in fair value recognized in earnings. The Bank has elected to present its derivative assets and derivative liabilities on a gross basis on its balance sheet. The Bank does not conduct proprietary trading activities in derivative instruments for its own account.

The Bank has derivative assets and liabilities consisting of foreign exchange contracts executed with clients. In these transactions, the Bank offsets the client exposure with another financial institution counterparty, such as a major investment bank or a large commercial bank. The Bank does not retain significant foreign exchange risk. The Bank does retain credit risk, both to the client and the financial institution counterparty, which is evaluated and managed by the Bank in the normal course of its operations. In addition, the Bank has foreign exchange contracts associated with client deposits denominated in various foreign currencies. Management does not currently anticipate non-performance by any of the counterparties. The amounts presented in the table below include the foreign exchange contracts with both the client and the financial institution counterparties.

The Bank originates certain mortgage loans with the intention of selling these loans to investors. The Bank enters into commitments to originate the loans whereby the interest rate on the loan paid by the borrower is set prior to funding. The Bank's interest rate risk exposure to these commitments is not significant as these derivatives are economically hedged with forward commitments to sell the loans to investors.

The following table presents the total notional or contractual amounts and fair values of derivatives:

	December 31,					
	2020			2019		
		Fair Value			Fair Value	
($ in thousands)	Notional or Contractual Amount	Derivative Assets (1)	Derivative Liabilities (2)	Notional or Contractual Amount	Derivative Assets (1)	Derivative Liabilities (2)
Foreign exchange contracts	$4,211,234	$81,088	$73,073	$4,360,407	$40,789	$27,040
Interest rate contracts with borrowers	$ 35,045	224	—	$ 10,061	6	5
Forward loan sale commitments	$ 55,635	—	224	$ 33,414	5	6
Total		$81,312	$73,297		$40,800	$27,051

(1) Included in other assets on the consolidated balance sheets.
(2) Included in other liabilities on the consolidated balance sheets.

The credit risk associated with these derivative instruments is the risk of non-performance by the counterparties to the contracts. The Bank's counterparty credit exposure is equal to the amount reported as a derivative asset on the Bank's balance sheet. To mitigate this risk, the Bank enters into master netting and bilateral collateral agreements with certain counterparties. These agreements allow the Bank to settle its derivative contracts with such counterparties on a net basis and to offset the net derivative exposure against the related collateral in the event of default.

The following table presents additional information related to the Bank's foreign exchange derivative contracts:

	Total	Contracts Not Subject to Master Netting Arrangements	Contracts Subject to Master Netting Arrangements					
						Gross Amounts Not Offset on the Balance Sheet		
($ in thousands)	Gross Amounts Recognized	Gross Amounts Recognized	Gross Amounts Recognized	Gross Amounts Offset on the Balance Sheet	Net Amounts Presented on the Balance Sheet	Derivative Amount	Cash Collateral [1]	Net Amount
December 31, 2020								
Derivative assets:								
Foreign exchange contracts . . .	$ 81,088	$ 57,378	$ 23,710	$—	$ 23,710	$ 23,710	$ —	$—
Derivative liabilities:								
Foreign exchange contracts . . .	$ 73,073	$ 18,152	$ 54,921	$—	$ 54,921	$ 23,710	$31,211	$—
December 31, 2019								
Derivative assets:								
Foreign exchange contracts . . .	$ 40,789	$ 18,840	$ 21,949	$—	$ 21,949	$ 17,542	$ 4,407	$—
Derivative liabilities:								
Foreign exchange contracts . . .	$ 27,040	$ 9,498	$ 17,542	$—	$ 17,542	$ 17,542	$ —	$—

(1) Collateral presented in the table above is limited to the amount required to settle the net derivative position and does not include any excess collateral.

Note 15. Fair Value Measurements

The Bank uses fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures. Under ASC 820, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Debt securities available-for-sale, mutual funds, marketable equity securities and derivative instruments are recorded at fair value on a recurring basis. Additionally, from time to time, the Bank may be required to record other assets at fair value on a nonrecurring basis, which typically involve adjustments of individual assets or application of the lower-of-cost-or-market accounting. Nonrecurring fair value adjustments of loans are generally based on the fair value of the underlying collateral of the loan, adjusted for certain factors such as estimated costs to sell and current market conditions. Nonrecurring fair value adjustments of loans held for sale, MSRs and other real estate owned result from the application of lower-of-cost-or-market accounting.

Although management uses its best judgment in estimating fair value, there are inherent weaknesses in any estimates that are made at a discrete point in time based on relevant market data, information about the financial instruments and other factors. Estimates of fair value of instruments without quoted market prices are subjective in nature and involve various assumptions that are matters of judgment. Changes in the assumptions used could significantly affect these estimates.

The estimated fair values presented neither include nor give effect to the values associated with the Bank's existing client relationships, lending and deposit office networks, or certain tax implications related to the realization of unrealized gains or losses.

Fair Value Hierarchy

Under ASC 820, the Bank groups its assets and liabilities at fair value in three levels, based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value. These levels are:

- Level 1—Valuation is based on quoted prices for identical instruments traded in active markets.
- Level 2—Valuation is based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-based valuation techniques for which all significant assumptions are observable in the market.
- Level 3—Valuation is generated from model-based techniques that use significant assumptions not observable in the market. These unobservable assumptions reflect estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models and similar techniques.

It is the Bank's policy to maximize the use of observable inputs and minimize the use of unobservable inputs when developing fair value measurements, in accordance with the fair value hierarchy of ASC 820.

Recurring Fair Value Measurements

The following is a description of valuation methodologies used for assets and liabilities recorded at fair value on a recurring basis.

Available-for-sale debt securities: The Bank's U.S. Treasury securities are valued using quoted market prices from the active exchange on which the securities are traded. For most other debt securities, the Bank uses quoted prices obtained through third-party valuation sources. Valuation techniques are based on observable market inputs appropriate for the type of security being measured. In some instances, prices are obtained from dealer quotes. The fair value of tax-exempt nonprofit debentures and certain municipal securities is determined using estimated future cash flows or other model-based valuation methods using inputs similar to market pricing, adjusted for liquidity risk.

Equity securities measured at fair value: The Bank's mutual funds and marketable equity securities are valued using quoted market prices from the active exchange on which the securities are traded. Mutual funds are valued using the NAV per share using quoted market prices.

Derivatives: Derivative assets and liabilities consist of foreign exchange contracts, interest rate lock commitments and forward loan sale commitments. The Bank uses current market prices to determine the fair value of foreign exchange contracts. The fair values of interest rate lock commitments and forward loan sale commitments are estimated using analysis based on current market prices.

The following table presents the balances of assets and liabilities measured at fair value on a recurring basis:

($ in thousands)	Level 1	Level 2	Level 3	Total
December 31, 2020				
Assets:				
Debt securities available-for-sale:				
Agency residential MBS	$ —	$ 1,096,383	$ —	$ 1,096,383
Other residential MBS	—	21,451	—	21,451
Agency commercial MBS	—	741,008	—	741,008
Securities of U.S. states and political subdivisions—taxable	—	—	47,473	47,473
Equity securities (fair value):				
Mutual funds and marketable equity securities	20,566	—	—	20,566
Derivative assets	—	81,312	—	81,312
Total	$ 20,566	$ 1,940,154	$ 47,473	$ 2,008,193
Liabilities:				
Derivative liabilities	$ —	$ 73,297	$ —	$ 73,297
December 31, 2019				
Assets:				
Debt securities available-for-sale:				
Agency residential MBS	$ —	$ 370,326	$ —	$ 370,326
Other residential MBS	—	4,240	—	4,240
Agency commercial MBS	—	860,153	—	860,153
Securities of U.S. states and political subdivisions—taxable	—	—	47,450	47,450
Equity securities (fair value):				
Mutual funds and marketable equity securities	19,586	—	—	19,586
Derivative assets	—	40,800	—	40,800
Total	$ 19,586	$ 1,275,519	$ 47,450	$ 1,342,555
Liabilities:				
Derivative liabilities	$ —	$ 27,051	$ —	$ 27,051

There were no transfers in or out of Level 3 assets measured at fair value on a recurring basis in the years ended December 31, 2020, 2019 or 2018.

The following table presents changes in Level 3 assets measured at fair value on a recurring basis:

	Year Ended December 31,		
($ in thousands)	2020	2019	2018
Available-for-sale debt securities of U.S. states and political subdivisions—taxable:			
Balance at beginning of period	$47,450	$47,448	$47,449
Unrealized gains (losses) included in other comprehensive income (loss)	12	(3)	(18)
Accretion included in interest income	11	5	17
Balance at end of period	$47,473	$47,450	$47,448

The table and discussion below provide information about the significant unobservable inputs in our recurring Level 3 fair value measurements:

	December 31,		December 31, 2020 and 2019	
	2020	2019		
($ in thousands)	Fair Value		Valuation Technique	Unobservable Input
Available-for-sale debt securities of U.S. states and political subdivisions—taxable	$47,473	$47,450	Discounted cash flow	Weighted average liquidity risk yield premium of 50 bps

For taxable municipal securities, the Bank calculates the fair value using estimated future cash flows on a quarterly basis. In addition to the inputs listed above, the Bank's management considers interest rate reset frequency, spread to index, market yield curves and the underlying bond rating at the time of valuation. The liquidity risk yield premium is applied to account for liquidity considerations since the bond is not publicly traded. An unfavorable change in the general business and credit environments could cause an increase in the liquidity risk yield premium, resulting in a decrease in the fair value of the investment.

Nonrecurring Fair Value Measurements

The following is a description of valuation methodologies used in estimating the fair value of assets measured at fair value on a nonrecurring basis.

Loans: The fair value of loans with nonrecurring fair value adjustments is generally based on the fair value of the underlying collateral, primarily real estate, adjusted for certain factors such as estimated costs to sell and current market conditions.

Loans held for sale: The fair value of loans held for sale is derived from actual prices at which loans were committed for sale adjusted for loan servicing value.

MSRs: The fair value of MSRs is based on a present value calculation of expected future cash flows, with assumptions regarding prepayments, discount rates, cost to service, escrow account earnings, contractual servicing fees and ancillary income.

Other real estate owned: Other real estate owned includes foreclosed properties securing mortgage loans. Fair value is generally based upon independent market prices or appraised values of the collateral, adjusted for estimated costs to sell.

FIRST REPUBLIC BANK
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table presents the assets measured at fair value on a nonrecurring basis that were held on the balance sheet at December 31, 2020 and 2019:

($ in thousands)	Level 1	Level 2	Level 3	Total
December 31, 2020				
Loans	$—	$ —	$ 6,305	$ 6,305
MSRs	—	—	18,205	18,205
Total	$—	$ —	$24,510	$24,510
December 31, 2019				
Loans	$—	$ —	$ 3,353	$ 3,353
Loans held for sale	—	4,610	18,694	23,304
MSRs	—	—	8,364	8,364
Total	$—	$4,610	$30,411	$35,021

The following table presents losses related to nonrecurring fair value measurements. The losses relate to assets held on the balance sheet at each respective period end.

	Year Ended December 31,		
($ in thousands)	2020	2019	2018
Loans	$ (1,864)	$ (399)	$(1,588)
Loans held for sale	—	(35)	—
MSRs	(8,836)	(1,863)	—
Total	$(10,700)	$(2,297)	$(1,588)

FIRST REPUBLIC BANK
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Fair Value of Financial Instruments

The following tables present the carrying values, estimated fair values and the levels in the fair value hierarchy of financial instruments, excluding those measured at fair value on a recurring basis:

($ in thousands)	December 31, 2020				
	Carrying Amount	Fair Value			
		Total	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	$ 5,094,754	$ 5,094,754	$5,094,754	$ —	$ —
Debt securities held-to-maturity, net: [1]					
U.S. Government-sponsored agency securities	50,000	49,979	—	49,979	—
Agency residential MBS	1,300,551	1,335,493	—	1,335,493	—
Other residential MBS	12,875	13,090	—	13,090	—
Agency commercial MBS	2,488,504	2,648,559	—	2,648,559	—
Securities of U.S. states and political subdivisions:					
Tax-exempt municipal securities	11,792,671	12,891,827	—	12,829,362	62,465
Tax-exempt nonprofit debentures	74,767	75,352	—	—	75,352
Taxable municipal securities	811,284	873,429	—	873,429	—
Corporate debt securities	72,658	76,290	—	76,290	—
Loans, net: [1]					
Real estate secured mortgages	88,041,848	86,725,687	—	60,812,876	25,912,811
Other loans	23,889,398	22,515,278	—	—	22,515,278
Loans held for sale	20,679	21,258	—	21,258	—
Other assets:					
MSRs	25,998	31,368	—	—	31,368
FHLB stock	354,339	354,339	—	—	354,339
Liabilities:					
Deposits:					
CDs	$ 8,681,061	$ 8,716,190	$ —	$ —	$ 8,716,190
Borrowings:					
Long-term FHLB advances	11,755,000	11,924,517	—	11,924,517	—
Senior notes	996,145	1,027,985	—	1,027,985	—
Subordinated notes	778,313	1,023,584	—	1,023,584	—

[1] Carrying amount is presented net of ACL.

($ in thousands)	December 31, 2019				
	Carrying Amount	Fair Value			
		Total	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	$ 1,699,557	$ 1,699,557	$1,699,557	$ —	$ —
Debt securities held-to-maturity:					
U.S. Government-sponsored agency securities	368,065	366,442	—	366,442	—
Agency residential MBS	2,224,252	2,225,480	—	2,225,480	—
Agency commercial MBS	3,296,724	3,325,646	—	3,325,646	—
Securities of U.S. states and political subdivisions:					
Tax-exempt municipal securities	10,483,668	11,064,025	—	10,969,137	94,888
Tax-exempt nonprofit debentures	138,140	140,917	—	—	140,917
Taxable municipal securities	612,704	620,029	—	620,029	—
Corporate debt securities	24,080	23,405	—	23,405	—
Loans, net: [(1)]					
Real estate secured mortgages	72,469,094	70,723,276	—	47,016,483	23,706,793
Other loans	17,831,633	16,702,916	—	—	16,702,916
Loans held for sale	23,304	23,304	—	4,610	18,694
Other assets:					
MSRs	41,720	57,891	—	—	57,891
FHLB stock	367,943	367,943	—	—	367,943
Liabilities:					
Deposits:					
CDs	$13,935,060	$13,971,499	$ —	$ —	$13,971,499
Borrowings:					
Federal funds purchased	450,000	450,000	—	450,000	—
Short-term FHLB advances	350,000	350,000	—	350,000	—
Long-term FHLB advances	12,200,000	12,252,331	—	12,252,331	—
Senior notes	497,719	504,510	—	504,510	—
Subordinated notes	777,885	899,092	—	899,092	—

(1) Carrying amount is presented net of ACL.

Note 16. Commitments and Contingencies

In the ordinary course of business, the Bank enters into transactions that involve financial instruments with off-balance sheet risks, to meet the financing needs of the Bank's clients. These financial instruments include conditional commitments to originate loans, commitments to disburse additional funds on existing loans and lines of credit, and commitments issued under standby letters of credit. Such instruments involve elements of credit risk and interest rate risk. These financial instruments are subject to the same underwriting standards as on-balance sheet instruments. The Bank generally requires collateral or other security to support instruments with credit risk. The maximum credit risk for such commitments will generally be lower than the contractual amount because a significant portion of these commitments is not expected to be fully used or will expire without being used by the client.

The Bank's conditional commitments to originate loans and commitments to disburse additional funds on existing loans and lines of credit are agreements to lend to a client as long as there is no violation of any of several credit or other established conditions. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since commitments may expire without being drawn, the total commitment amounts do not necessarily represent future cash requirements. At December 31, 2020 and 2019, the Bank had conditional commitments to originate loans of $2.5 billion and $1.8 billion, respectively, and to disburse additional funds on existing loans and lines of credit of $31.6 billion and $25.8 billion, respectively.

The Bank's standby letters of credit are conditional lending commitments issued by the Bank to guarantee the performance of a client to a third party under certain arrangements. At December 31, 2020 and 2019, the Bank had undisbursed standby letters of credit of $929.4 million and $931.9 million, respectively.

In connection with the securitization of loans with Freddie Mac, the Bank has an obligation to reimburse Freddie Mac for losses up to $30.2 million, or 12% of the multifamily loans securitized. The liability for estimated losses related to this reimbursement obligation was less than $100,000 at December 31, 2020, and the Bank has experienced no cumulative losses through December 31, 2020. The remaining unpaid principal balance of multifamily loans securitized was $92.6 million and $173.1 million at December 31, 2020 and 2019, respectively.

The Bank has been named as a defendant in legal actions arising in the ordinary course of business, none of which, in the opinion of management, are material.

Note 17. Preferred Stock

At December 31, 2020, the Bank was authorized to issue 25,000,000 shares of preferred stock, par value $0.01 per share, of which 1,545,000 shares were issued and outstanding. Each share of preferred stock has a liquidation preference of $1,000. The following table presents the authorized, issued and outstanding shares for each series of the Bank's preferred stock:

	December 31,	
(in thousands, except share amounts)	**2020**	**2019**
5.70% Noncumulative Perpetual Series F—No shares authorized, issued or outstanding at December 31, 2020; 115,000 shares authorized; 100,000 shares issued and outstanding at December 31, 2019	$ —	$ 100,000
5.50% Noncumulative Perpetual Series G—172,500 shares authorized; 150,000 shares issued and outstanding	150,000	150,000
5.125% Noncumulative Perpetual Series H—200,000 shares authorized, issued and outstanding	200,000	200,000
5.50% Noncumulative Perpetual Series I—300,000 shares authorized, issued and outstanding	300,000	300,000
4.70% Noncumulative Perpetual Series J—400,000 shares authorized; 395,000 shares issued and outstanding	395,000	395,000
4.125% Noncumulative Perpetual Series K—500,000 shares authorized, issued and outstanding at December 31, 2020; no shares authorized, issued or outstanding at December 31, 2019	500,000	—
Total	$1,545,000	$1,145,000

The Bank's preferred stock activity for 2018 through 2020 was as follows:

On January 2, 2018 (the "Series C Redemption Date"), the Bank redeemed all of the outstanding shares of its 5.625% Noncumulative Perpetual Series C Preferred Stock ("Series C Preferred Stock"). All 6,000,000 depositary shares, representing a 1/40th interest in the Series C Preferred Stock, were redeemed at a redemption price of $25.00 per share, representing an aggregate amount of $150.0 million plus all accrued and unpaid dividends as of the Series C Redemption Date.

On June 12, 2018, the 5.50% Noncumulative Perpetual Series I Preferred Stock ("Series I Preferred Stock") was issued. Net proceeds, after underwriting discounts and expenses, were $290.2 million. The public offering consisted of 12,000,000 depositary shares, each representing a 1/40th interest in a share of the Series I Preferred Stock, at a public offering price of $25.00 per depositary share. The Series I Preferred Stock is redeemable at the option of the Bank, subject to all applicable regulatory approvals, on or after June 30, 2023.

On December 28, 2018 (the "Series E Redemption Date"), the Bank redeemed all of the outstanding shares of its 7.00% Noncumulative Perpetual Series E Preferred Stock ("Series E Preferred Stock"). All 8,000,000 depositary shares, representing a 1/40th interest in the Series E Preferred Stock, were redeemed at a redemption price of $25.00 per share, representing an aggregate amount of $200.0 million plus all accrued and unpaid dividends as of the Series E Redemption Date.

On October 18, 2019 (the "Series D Redemption Date"), the Bank redeemed all of the outstanding shares of its 5.50% Noncumulative Perpetual Series D Preferred Stock ("Series D Preferred Stock"). All 7,600,000 depositary shares, representing a 1/40th interest in the Series D Preferred Stock, were redeemed at a redemption price of $25.00 per share, representing an aggregate amount of $190.0 million plus all accrued and unpaid dividends as of the Series D Redemption Date.

On December 3, 2019 and December 19, 2019, the 4.70% Noncumulative Perpetual Series J Preferred Stock ("Series J Preferred Stock") was issued. Net proceeds, after underwriting discounts and expenses, were $382.5 million. The public offering consisted of 15,800,000 depositary shares, each representing a 1/40th interest in a share of the Series J Preferred Stock, at a public offering price of $25.00 per depositary share. The Series J Preferred Stock is redeemable at the option of the Bank, subject to all applicable regulatory approvals, on or after December 31, 2024.

On September 16, 2020, the 4.125% Noncumulative Perpetual Series K Preferred Stock ("Series K Preferred Stock") was issued. Net proceeds, after underwriting discounts and expenses, were approximately $492.0 million. The public offering consisted of 20,000,000 depositary shares, each representing a 1/40th interest in a share of the Series K Preferred Stock, at a public offering price of $25.00 per depositary share. The Series K Preferred Stock is redeemable at the option of the Bank, subject to all applicable regulatory approvals, on or after October 30, 2025.

On October 9, 2020 (the "Series F Redemption Date"), the Bank redeemed all of the outstanding shares of its 5.70% Noncumulative Perpetual Series F Preferred Stock ("Series F Preferred Stock"). All 4,000,000 depositary shares, representing a 1/40th interest in the Series F Preferred Stock, were redeemed at a redemption price of $25.00 per share, representing an aggregate amount of $100.0 million plus all accrued and unpaid dividends as of the Series F Redemption Date.

Refer to Note 26, "Subsequent Events," for information regarding the Bank's issuance of 4.250% Noncumulative Perpetual Series L Preferred Stock on February 9, 2021, and the Bank's announced redemption of all of its outstanding 5.50% Noncumulative Perpetual Series G Preferred Stock on March 30, 2021.

Dividends on each series of the Bank's outstanding shares of preferred stock, except for the Series J Preferred Stock and Series K Preferred Stock, are paid each March 30, June 30, September 30 and December 30. Dividends on the Series J Preferred Stock and Series K Preferred Stock are paid each January 30, April 30, July 30 and October 30. The following table presents dividends paid on preferred stock:

	Year Ended December 31,					
	2020		2019		2018	
(in thousands, except per share amounts)	**Total**	**Per Share**	**Total**	**Per Share**	**Total**	**Per Share**
5.625% Noncumulative Perpetual Series C	$ —	$ —	$ —	$ —	$ 60	$ 0.40
5.50% Noncumulative Perpetual Series D	—	$ —	8,370	$44.05	10,450	$55.00
7.00% Noncumulative Perpetual Series E	—	$ —	—	$ —	13,940	$69.70
5.70% Noncumulative Perpetual Series F	4,435	$44.35	5,700	$57.00	5,700	$57.00
5.50% Noncumulative Perpetual Series G	8,250	$55.00	8,250	$55.00	8,250	$55.00
5.125% Noncumulative Perpetual Series H	10,250	$51.25	10,250	$51.25	10,250	$51.25
5.50% Noncumulative Perpetual Series I	16,500	$55.00	16,500	$55.00	9,075	$30.25
4.70% Noncumulative Perpetual Series J	16,769	$42.45	—	$ —	—	$ —
4.125% Noncumulative Perpetual Series K	2,521	$ 5.04	—	$ —	—	$ —
Total	$ 58,725		$ 49,070		$ 57,725	

Note 18. Common Stock and Stock Plans

Common Stock

At December 31, 2020, the Bank was authorized to issue 400,000,000 shares of common stock, par value $0.01 per share. At December 31, 2020 and 2019, the Bank had 174,123,862 and 168,620,708 shares issued and outstanding, respectively. During 2020, the Bank sold 4,225,000 shares of common stock in underwritten offerings, which added $516.0 million to common equity.

First Republic Bank Employee Stock Purchase Plan

Under the Bank's ESPP, the Bank is authorized to sell 2,000,000 shares of common stock to its full-time and part-time employees who are regularly employed for 20 hours or more per week. For 2020 and 2019, employees could purchase shares of the Bank's common stock at 85% of the closing price of the common stock on the New York Stock Exchange on the date of purchase or the nearest prior trading day, subject to an annual limitation of common stock valued at $25,000. A total of 1,233,650 shares have been sold to employees under the ESPP since its inception in 2011. In 2020, a total of 255,833 shares were sold to employees, compared to 212,421 in 2019 and 151,825 in 2018. For 2020, 2019 and 2018, compensation expense for the ESPP was approximately $4.1 million, $3.2 million and $1.4 million, respectively.

First Republic Bank 2017 Omnibus Award Plan

In May 2020, the Bank amended the 2017 Omnibus Award Plan to, among other things, increase the number of shares reserved for issuance by an additional 4,000,000 shares. Stock awards outstanding were not affected by the amendment, and the terms of the award plan prior to the amendment will remain effective for such awards.

The Bank is authorized to grant shares of common stock in the form of stock options, stock appreciation rights, shares of restricted stock, RSUs or PSUs to its employees, officers and directors under the 2017 Omnibus Award Plan. Upon termination of service, unvested awards are generally forfeited. At December 31, 2020, the Bank had 3,205,386 shares reserved for future stock award grants.

Stock Options

Under the Bank's stock option agreements, the exercise price of each option equals the market price of the Bank's common stock at the grant date. Generally, stock options vest over a period of up to four years from the grant date and have a maximum contractual life of ten years. The Bank has granted options that have time vesting requirements ("Time Options") and performance vesting criteria ("Performance Options"). All options have been fully vested.

The following table presents information related to Time Options and Performance Options:

	Time Options				Performance Options			
	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value ($ in thousands)	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value ($ in thousands)
Options outstanding as of December 31, 2017	1,354,147	$15.01			1,032,205	$15.96		
Granted	—	—			—	—		
Canceled or forfeited	—	—			—	—		
Exercised	(266,865)	$15.00			(355,080)	$15.69		
Options outstanding as of December 31, 2018	1,087,282	$15.01	1.5 years	$78,163	677,125	$16.11	1.6 years	$47,935
Granted	—	—			—	—		
Canceled or forfeited	—	—			—	—		
Exercised	(1,063,282)	$15.01			(381,372)	$15.79		
Options outstanding as of December 31, 2019	24,000	$15.00	0.6 years	$2,459	295,753	$16.51	0.6 years	$29,852
Granted	—	—			—	—		
Canceled or forfeited	—	—			—	—		
Exercised	(24,000)	$15.00			(277,903)	$15.73		
Options outstanding as of December 31, 2020	—	—	—	—	17,850	$28.78	0.5 years	$2,109

The intrinsic value of all options exercised was $28.0 million in 2020, compared to $120.4 million in 2019 and $50.6 million in 2018. Stock option exercises are satisfied by issuing shares from the Bank's authorized shares. The number of shares of common stock issued from stock option exercises are generally net of shares withheld to pay the exercise price or taxes due upon the exercise.

Restricted Stock Units

The Bank granted RSUs to certain of its employees, officers and directors. Upon vesting, one share of common stock is issued from the Bank's authorized shares for each RSU. The number of shares of common stock issued at the time of vesting is generally net of shares withheld to pay taxes due upon vesting. Participants are entitled to dividends and voting rights only upon vesting.

RSUs have time-based vesting requirements ("Time RSUs") or both time-based and performance-based vesting requirements ("Performance RSUs"). RSUs vest evenly over periods ranging from one year to five years from the date of grant. Performance RSUs vest over these periods, provided that certain performance criteria are met, based on performance periods that are specified for each grant. The following table presents information related to Performance RSUs and Time RSUs:

	Performance RSUs			Time RSUs		
	Number of Awards	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual Term	Number of Awards	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual Term
Nonvested awards as of December 31, 2017	1,901,088	$ 80.33		442,825	$ 69.38	
Granted	1,040,244	$ 99.18		78,449	$100.44	
Vested	(637,317)	$ 73.60		(195,209)	$ 70.25	
Canceled or forfeited	(67,332)	$ 90.85		(5,162)	$ 66.79	
Nonvested awards as of December 31, 2018	2,236,683	$ 90.70	3.0 years	320,903	$ 76.49	1.4 years
Granted	1,190,509	$112.46		254,450	$ 99.32	
Vested	(724,718)	$ 85.17		(207,169)	$ 73.19	
Canceled or forfeited	(106,410)	$ 94.07		(1,175)	$ 79.80	
Nonvested awards as of December 31, 2019	2,596,064	$102.09	3.0 years	367,009	$ 94.17	2.0 years
Granted	1,226,021	$108.47		269,554	$112.06	
Vested	(863,413)	$ 95.02		(172,558)	$ 88.12	
Canceled or forfeited	(26,408)	$106.02		(950)	$109.79	
Nonvested awards as of December 31, 2020	2,932,264	$106.80	3.3 years	463,055	$106.81	1.8 years

The total fair value of Performance RSUs that vested in 2020, 2019 and 2018 was approximately $100.4 million, $70.5 million and $64.1 million, respectively. The total fair value of Time RSUs that vested in 2020, 2019 and 2018 was approximately $17.9 million, $21.1 million and $18.2 million, respectively. No cash consideration was received in connection with the vesting of these awards.

Performance Share Units

The Bank has granted PSUs to certain of its employees and officers. Upon vesting, one share of common stock is issued from the Bank's authorized shares for each PSU. The number of shares of common stock issued at the time of vesting is generally net of shares withheld to pay taxes due upon vesting. Participants are entitled to dividends and voting rights only upon vesting. Certain PSUs vest in full after three years, while other PSUs vest evenly over periods ranging from three years to five years from the date of grant, provided that certain performance criteria are met, based on performance periods that are specified for each grant. The following table presents information related to PSUs:

	Number of Awards	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual Term
Nonvested awards as of December 31, 2017	738,750	$ 80.34	
Granted	434,784	$ 96.80	
Vested	(221,450)	$ 71.89	
Canceled or forfeited	—	—	
Nonvested awards as of December 31, 2018	952,084	$ 89.82	3.0 years
Granted	309,250	$114.88	
Vested	(272,592)	$ 83.33	
Canceled or forfeited	—	—	
Nonvested awards as of December 31, 2019	988,742	$ 99.45	2.4 years
Granted	309,250	$105.69	
Vested	(272,585)	$ 88.88	
Canceled or forfeited	—	—	
Nonvested awards as of December 31, 2020	1,025,407	$104.14	2.0 years

The total fair value of PSUs that vested during 2020, 2019 and 2018 was $29.9 million, $26.7 million and $22.2 million, respectively. No cash consideration was received in connection with the vesting of these awards.

Restricted Stock Awards

The Bank previously granted RSAs to certain of its employees and officers. Upon grant, one share of common stock is issued from the Bank's authorized shares for each RSA. Upon vesting, common stock shares are transferred to the employee or officer. At the time of vesting, shares are generally withheld to pay the taxes due upon vesting. Participants are entitled to dividends and voting rights for all RSAs, regardless of whether the award has vested.

RSAs have performance-based vesting requirements ("Performance RSAs") and vest on a quarterly basis, provided that certain performance criteria are achieved for a specified performance period. Performance RSAs were fully vested as of December 31, 2019. The following table presents information related to Performance RSAs:

	Number of Awards	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual Term
Nonvested awards as of December 31, 2017	35,000	$31.80	
Granted	—	—	
Vested	(17,500)	$31.80	
Canceled or forfeited	—	—	
Nonvested awards as of December 31, 2018	17,500	$31.80	1.0 year
Granted	—	—	
Vested	(17,500)	$31.80	
Canceled or forfeited	—	—	
Nonvested awards as of December 31, 2019	—	—	—

The total fair value of Performance RSAs that vested during 2019 and 2018 was $1.8 million and $1.6 million, respectively. No cash consideration was received in connection with the vesting of these awards.

Compensation Expense

The following tables present information regarding share-based compensation expense:

	Year Ended December 31,					
	2020		2019		2018	
($ in thousands)	Expense Recognized	Related Tax Benefit	Expense Recognized	Related Tax Benefit	Expense Recognized	Related Tax Benefit
RSUs	$107,673	$30,742	$ 75,939	$22,071	$69,201	$20,622
PSUs	37,590	6,758	24,702	5,495	21,944	6,539
RSAs [(1)]	—	—	555	165	557	166
Total	$145,263	$37,500	$101,196	$27,731	$91,702	$27,327

(1) All compensation costs related to RSAs have been fully recognized as of December 31, 2019.

	At December 31, 2020	
($ in thousands)	Unrecognized Expense	Weighted Average Expected Recognition Period
RSUs	$302,506	3.3 years
PSUs	70,843	2.2 years
Total	$373,349	

Excess Tax Benefits

Excess tax benefits from exercise or vesting of share-based awards are included as a reduction in provision for income taxes in the period in which the exercise or vesting occurs. The following table presents excess tax benefits recognized, by award type:

	Year Ended December 31,					
	2020		2019		2018	
($ in thousands)	Number of Awards Exercised or Vested	Related Excess Tax Benefit	Number of Awards Exercised or Vested	Related Excess Tax Benefit	Number of Awards Exercised or Vested	Related Excess Tax Benefit
Stock options	301,903	$ 8,221	1,444,654	$33,696	621,945	$13,986
RSUs	1,035,971	6,806	931,887	4,802	832,526	6,827
PSUs	272,585	1,853	272,592	1,300	221,450	1,960
RSAs	—	—	17,500	374	17,500	323
Total	1,610,459	$16,880	2,666,633	$40,172	1,693,421	$23,096

Note 19. Accumulated Other Comprehensive Income (Loss)

The following table presents the changes in the components of accumulated other comprehensive income (loss):

($ in thousands)	Debt Securities Available-For-Sale	Debt Securities Transferred from Available-For-Sale to Held-to-Maturity	Total
Balance at December 31, 2017	**$ (6,472)**	**$ 2,632**	**$ (3,840)**
Cumulative adjustments from adoption of new accounting guidance	(1,182)	—	(1,182)
Balance at January 1, 2018	**(7,654)**	**2,632**	**(5,022)**
Net unrealized gain on debt securities transferred from held-to-maturity to available-for-sale	17,528	—	17,528
Related tax effect	(5,223)	—	(5,223)
Net unrealized loss on debt securities available-for-sale	(12,134)	—	(12,134)
Related tax effect	3,616	—	3,616
Reclassification of gain on debt securities available-for-sale to net income [1]	(24,328)	—	(24,328)
Related tax effect [2]	7,250	—	7,250
Amortization of unrealized gain on debt securities transferred from available-for-sale to held-to-maturity [3]	—	(1,524)	(1,524)
Related tax effect [2]	—	454	454
Other comprehensive loss	(13,291)	(1,070)	(14,361)
Balance at December 31, 2018	**(20,945)**	**1,562**	**(19,383)**
Net unrealized gain on debt securities available-for-sale	31,648	—	31,648
Related tax effect	(9,431)	—	(9,431)
Reclassification of loss on debt securities available-for-sale to net income [1]	4,303	—	4,303
Related tax effect [2]	(1,282)	—	(1,282)
Amortization of unrealized gain on debt securities transferred from available-for-sale to held-to-maturity [3]	—	(1,031)	(1,031)
Related tax effect [2]	—	307	307
Other comprehensive income (loss)	25,238	(724)	24,514
Balance at December 31, 2019	**4,293**	**838**	**5,131**
Net unrealized gain on debt securities available-for-sale	26,825		26,825
Related tax effect	(7,994)	—	(7,994)
Reclassification of loss on debt securities available-for-sale to net income [1]	114	—	114
Related tax effect [2]	(33)	—	(33)
Amortization of unrealized gain on debt securities transferred from available-for-sale to held-to-maturity [3]	—	(947)	(947)
Related tax effect [2]	—	282	282
Other comprehensive income (loss)	18,912	(665)	18,247
Balance at December 31, 2020	**$ 23,205**	**$ 173**	**$ 23,378**

(1) Included in gain (loss) on investment securities on the consolidated statements of income and comprehensive income.
(2) Included in provision for income taxes on the consolidated statements of income and comprehensive income.
(3) Included in interest income on investments on the consolidated statements of income and comprehensive income.

Note 20. Employee Benefit Plans

The Bank's 401(k) Plan is a qualified defined contribution plan under section 401(k) of the IRC. Generally, full-time and part-time employees who are regularly employed for 20 hours or more per week are automatically enrolled in the Bank's 401(k) Plan upon their date of hire. The 401(k) Plan assets are invested by plan participants in a family of investment funds. Eligible employees may contribute up to 50% of their pre-tax and post-tax eligible compensation as defined in the 401(k) Plan, subject to certain IRC limitations. Under the 401(k) Plan, the Bank makes matching contributions every pay period up to a maximum of 4% of the participant's eligible compensation, and the matching contributions vest immediately. The Bank's contributions to the 401(k) Plan were approximately $29.5 million, $25.7 million and $22.3 million for 2020, 2019 and 2018, respectively.

The Bank has a Deferred Compensation Plan under which eligible employees may defer receipt of a portion of salary or incentive compensation. The Deferred Compensation Plan allows its participants to invest their deferred compensation in certain mutual funds. Deferred amounts will be distributed to employees in accordance with their elections. At December 31, 2020 and 2019, the deferred compensation liability was $84.2 million and $57.7 million, respectively.

Since inception, the Bank has not offered any other employee benefit plans and, at December 31, 2020, has no requirement to accrue additional expenses for any pension or other post-employment benefits.

Note 21. Income Taxes

The following table presents the components of the Bank's provision for income taxes:

($ in thousands)	Year Ended December 31, 2020	2019	2018
Federal:			
Current	$ 42,723	$ 28,414	$ 40,963
Deferred	(57,456)	(64,982)	(70,523)
Subtotal	(14,733)	(36,568)	(29,560)
State:			
Current	145,162	105,577	119,104
Deferred	(16,334)	(5,305)	(23,541)
Subtotal	128,828	100,272	95,563
Tax credit investment amortization	155,719	139,203	131,911
Total provision for income taxes	$269,814	$202,907	$197,914

The following table presents a reconciliation between the effective tax rate and the federal statutory rate:

Effective Tax Rate	Year Ended December 31, 2020	2019	2018
Statutory rate	21.0%	21.0%	21.0%
State taxes, net of federal benefits	8.3	8.0	7.8
Tax-exempt income	(6.7)	(6.5)	(7.0)
Investments in life insurance	(0.8)	(0.8)	(0.8)
Tax credits	(13.2)	(14.1)	(14.3)
Tax credit investment amortization	11.7	12.3	12.6
Excess tax benefits—stock options	(0.6)	(2.9)	(1.3)
Excess tax benefits—other stock awards	(0.7)	(0.6)	(0.9)
FDIC assessments	0.7	0.7	1.1
Tax refund from an amended tax return	(0.4)	—	—
Other, net	0.9	0.8	0.6
Effective tax rate	20.2%	17.9%	18.8%

The following table presents the tax effects of temporary differences that give rise to significant portions of DTAs and DTLs:

($ in thousands)	December 31, 2020	2019
DTAs:		
Lease liabilities	$ 319,311	$ 268,719
Excess tax credit carryforwards	225,713	201,302
Allowance for credit losses	199,126	151,015
Accrued compensation	99,398	95,668
Depreciation	29,233	24,769
Stock award expense	23,157	20,104
State income taxes	20,007	13,904
Loan discounts	12,576	11,001
Deferred PPP loan origination fees	8,294	—
Other DTAs	4,161	2,224
Gross DTAs	940,976	788,706
DTLs:		
Lease assets	(295,469)	(250,100)
Deferred loan costs	(158,126)	(127,907)
MSRs	(6,238)	(9,919)
Intangible assets	(9,684)	(4,789)
Unrealized gains on debt securities available-for-sale	(9,924)	(2,178)
Other DTLs	(2,627)	(2,032)
Gross DTLs	(482,068)	(396,925)
Net DTAs	$ 458,908	$ 391,781

Gross DTAs represent recoverable taxes. At December 31, 2020, the Bank had excess tax credit carryforwards of $225.7 million, which expire in varying amounts between 2037 and 2040. At December 31, 2020 and 2019, management believes a valuation allowance is not needed because it is more likely than not that DTAs will be realized based on our history of earnings and our ability to implement tax planning strategies.

The table below presents a reconciliation of the beginning and ending amount of unrecognized tax benefits:

	At or for the Year Ended December 31,	
($ in thousands)	**2020**	**2019**
Balance at beginning of period	$ 108	$ 100
Additions for tax positions related to prior years	9	8
Balance at end of period	$117	$108

At December 31, 2020 and 2019, the Bank had accrued net current taxes payable of approximately $1.5 million and net current taxes receivable of $26.4 million, respectively.

At December 31, 2020 and 2019, the Bank had accrued current taxes payable of approximately $117,000 and $108,000, respectively, related to uncertain tax positions. If recognized, the entire amount of unrecognized tax benefits at December 31, 2020 would affect the Bank's consolidated effective tax rate. The Bank also recognized interest and penalties of approximately $9,000 and $8,000 (recorded in income tax expense) related to uncertain tax positions for the years ended December 31, 2020 and 2019, respectively.

The Bank continues to monitor the progress of ongoing income tax controversies and the impact, if any, of the expected tolling of the statute of limitations in various taxing jurisdictions. The Bank's tax returns for the years ended December 31, 2013 through 2020 remain subject to examination by the Internal Revenue Service, the California Franchise Tax Board or various other state taxing authorities. The Bank does not currently believe there is a reasonable possibility of any significant change to our total unrecognized tax benefits within the next twelve months.

Note 22. Earnings Per Common Share

The following table presents a reconciliation of the income and share amounts used in the basic and diluted EPS computations:

(in thousands, except per share amounts)	Year Ended December 31, 2020	2019	2018
Basic EPS:			
Net income	$1,064,151	$930,329	$853,828
Less: Dividends on preferred stock	58,725	49,070	57,725
Net income available to common shareholders	$1,005,426	$881,259	$796,103
Weighted average common shares outstanding	171,933	167,908	162,948
Net income per common share—basic	$ 5.85	$ 5.25	$ 4.89
Diluted EPS:			
Net income available to common shareholders	$1,005,426	$881,259	$796,103
Weighted average shares:			
Common shares outstanding	171,933	167,908	162,948
Dilutive effect of stock options	80	715	1,721
Dilutive effect of RSAs, RSUs and PSUs	1,040	928	943
Weighted average diluted common shares outstanding	173,053	169,551	165,612
Net income per common share—diluted	$ 5.81	$ 5.20	$ 4.81

Stock options, RSAs, RSUs and PSUs that are anti-dilutive are not included in the calculation of diluted EPS. The following table presents the weighted average shares of outstanding stock awards that were anti-dilutive for the periods indicated:

(in thousands)	Year Ended December 31, 2020	2019	2018
RSUs and PSUs	7	72	40

Note 23. Regulatory Capital

The Bank is subject to various regulatory capital requirements administered by the FDIC. Failure to meet minimum capital requirements can initiate certain mandatory and possibly additional discretionary actions by regulators that, if undertaken, could have a direct material effect on the Bank's consolidated financial statements. Under capital adequacy guidelines and the regulatory framework for prompt corrective action, the Bank must meet specific capital guidelines that involve quantitative measures of the Bank's assets, liabilities, and certain off-balance sheet items as calculated under regulatory capital requirements. The Bank's capital amounts and classification will also be subject to qualitative judgments by the regulators about components, risk weightings and other factors.

The Bank's capital ratios exceeded all applicable regulatory requirements at December 31, 2020 and 2019 for well-capitalized institutions. The following table presents the Bank's regulatory capital information and regulatory requirements:

	December 31,		Regulatory Requirements		
($ in thousands)	2020	2019	Well-Capitalized Ratio	Minimum Capital Ratio	Minimum Capital Conservation Buffer [1]
Capital Ratios [2]					
Tier 1 leverage ratio (Tier 1 capital to average assets)	8.14%	8.39%	5.00%	4.00%	—%
CET1 capital to RWAs	9.67%	9.86%	6.50%	4.50%	2.50%
Tier 1 capital to RWAs	11.18%	11.21%	8.00%	6.00%	2.50%
Total capital to RWAs	12.55%	12.73%	10.00%	8.00%	2.50%
Regulatory Capital [3], [4]					
CET1 capital	$ 9,894,870	$ 8,371,192			
Tier 1 capital	$ 11,439,870	$ 9,516,192			
Total capital	$ 12,842,344	$ 10,802,209			
Assets [3], [4]					
Average assets	$140,493,283	$113,403,507			
RWAs	$102,321,489	$ 84,885,943			

(1) As of December 31, 2020, our capital conservation buffer was 4.55%, which exceeded the minimum requirement of 2.5% required to be held by banking institutions.

(2) As of December 31, 2020, the Bank's election of regulatory capital relief under the CECL Capital Rule resulted in a 3 bps increase in the Tier 1 leverage ratio, a 4 bps increase in the CET1 capital ratio and the Tier 1 capital ratio, and no impact on the Total capital ratio.

(3) In accordance with the CECL Capital Rule, the Bank elected to delay the estimated impact of CECL on its regulatory capital, average assets and RWAs over a five-year transition period ending December 31, 2024. Amounts as of December 31, 2020 have been adjusted to exclude the following impacts attributed to the adoption of CECL: decreases in CET1 capital, Tier 1 capital, average assets and increases in Total capital and RWAs.

(4) As defined by regulatory capital rules.

The Bank's ability to declare a cash dividend or other distribution with respect to capital is subject to federal and state statutory and regulatory restrictions and possible approval requirements based upon earnings, financial condition, cash needs and general business conditions. Federal and state banking agencies also have authority to prohibit the Bank from engaging in business practices that are considered unsafe or unsound, possibly including the payment of dividends or other distributions with respect to capital. In addition, the Bank cannot declare or pay dividends on common stock or redeem or repurchase common stock for any period for which dividends on preferred stock have not been declared and paid in full.

Note 24. Revenue from Contracts with Customers

Revenue Recognition

The following table presents revenue from contracts with customers, disaggregated by revenue stream, as well as other noninterest income:

($ in thousands)	Year Ended December 31, 2020	2019	2018
Noninterest income:			
Revenue from contracts with customers:			
Investment management fees	$395,304	$359,332	$341,539
Brokerage and investment fees	46,994	38,306	28,974
Insurance fees	11,655	12,708	10,090
Trust fees	19,484	16,549	14,633
Deposit fees	23,713	26,071	24,974
Other income	5,684	4,579	2,569
Total revenue from contracts with customers	502,834	457,545	422,779
Other sources of noninterest income	151,399	119,675	120,666
Total noninterest income	$654,233	$577,220	$543,445

The Bank earns revenues from contracts with customers primarily for performing investment management, brokerage, sales of insurance and annuity policies, trust and deposit services. Most of the Bank's contracts with customers are open-ended, and the Bank provides services on an ongoing basis for an unspecified contract term. For these ongoing services, the fees are variable, since they are dependent on factors such as the value of underlying AUM, AUA or volume of transactions. The Bank recognizes revenue over the period services are provided to customers and when the uncertainties that determine the amount of revenue are resolved, and the actual fees are known or can be estimated. For certain services that are provided at a specific point in time, the Bank recognizes revenue in full at the time such services are provided. Each of the Bank's revenue streams are described in additional detail below.

Investment Management Fees

The Bank performs investment management services for its clients through FRIM, who acts as the client's investment adviser, performing traditional portfolio management, and in some cases, brokerage services through FRSC. FRIM also acts as an adviser to alternative investment funds. Investment management fees are variable, since they are based on AUM, which are subject to changes in market conditions and asset inflows and outflows. Investment management fees are recognized over the period services are provided, and when actual AUM values are known or can be estimated. For traditional portfolio management services, AUM is known at the end of each quarter, and alternative investments' AUM can be estimated each quarter.

Brokerage and Investment Fees

The Bank performs brokerage services for its clients through FRSC. Brokerage fees consist of transaction fees earned from trade execution and distribution fees from mutual funds or money market mutual funds. Brokerage transaction fees are fixed and determinable, based on security type and trade volume, and are recognized upon trade execution. Distribution fees from mutual funds or money market mutual funds are variable, since they are based on the underlying fund's value, which is subject to market conditions, fund performance and amounts invested by clients. Distribution fees are recognized over the period that services are provided, and when the fund values are known or can be estimated at the end of each quarter.

Insurance Fees

The Bank earns revenue from selling insurance policies and annuity contracts to its clients through FRSC and FRIM. Insurance fees consist of initial commissions when a policy is sold and subsequent commissions each year that a policy is renewed. Both initial and renewal fees are variable, since they are determined by the value and type of each annuity or insurance policy sold and subsequently renewed. Initial commissions are recognized when the policy is in effect, and renewal commissions are recognized upon renewal of the policy.

Trust Fees

The Bank performs trust and custody services for its clients through the Trust Company. The Trust Company holds cash, securities and other assets in trust or custody accounts for its customers, and manages the day to day administration of the accounts. Trust and custody fees are variable, since they are based upon AUA, which are subject to changes in market conditions and asset inflows and outflows. Trust fees are recognized over the period services are provided, and when actual AUA values are known or can be estimated.

Deposit Fees

The Bank performs deposit account services for its deposit clients. Deposit account fees are variable, since they are based on average account balances, type of account and transactions. Deposit account fees are recognized over the period that services are provided, and when the average account balances and transactions are known. Average account balances are known at the end of a monthly account cycle and transactions are known as they occur. In addition, other deposit-related fees consist of ATM fees from non-Bank cardholders, which is a fixed amount recognized at the time of the transaction, and interchange fees from debit card transactions, which are variable and recognized at the time of the transaction. Interchange fees are a percentage of the dollar value of the debit cardholder's transaction.

Other Income

Other income primarily includes revenue earned from ancillary services the Bank and its subsidiaries provide to customers.

Principal versus Agent

For brokerage services, FRSC utilizes a third-party clearing broker to execute and settle trades. FRSC is a principal in this relationship and, therefore, brokerage revenue is recognized as the gross amount of consideration, and payments to the clearing broker are recorded as an expense. For trustee services, the Bank utilizes a third-party custodian to provide custody over trust assets. FRTC is the principal in this relationship, therefore, trustee services revenue is recognized as the gross amount of consideration from the customer, and payments to the custodian are recorded as an expense.

Contract Balances and Receivables

The Bank records contract liabilities, or deferred revenue, when payments from customers are received or due in advance of providing services to customers. The Bank generally receives payments for its services during the period or at the time services are provided and, therefore, does not have deferred revenue balances at period end.

Receivables from contracts with customers were $26.6 million and $21.8 million at December 31, 2020 and 2019, respectively, and consist primarily of investment management and brokerage receivables, which are included in other assets on the consolidated balance sheets.

Contract Acquisition Costs

The Bank pays its employees incentive compensation in the form of commissions, which are considered incremental and recoverable costs to obtain the contract. The Bank utilizes the practical expedient not to capitalize such costs as the amortization period of the asset is less than 12 months, and therefore expenses the commissions as incurred. These costs are recorded in salaries and employee benefits expense in the consolidated income statements.

Note 25. Segment Reporting

ASC 280-10, “Segment Reporting,” requires that a public business enterprise report certain financial and descriptive information about its reportable operating segments on the basis that is used internally for evaluating segment performance and deciding how to allocate resources to segments. The Bank’s two reportable segments are Commercial Banking and Wealth Management.

The principal business activities of the Commercial Banking segment are gathering deposits (retail deposit gathering and private banking activities), originating and servicing loans (primarily real estate secured mortgage loans) and investing in investment securities. The primary sources of revenue for this segment are: interest earned on loans and investment securities, fees earned in connection with loan and deposit services, and income earned on loans serviced for investors. Principal expenses for this segment are interest incurred on interest-bearing liabilities, including deposits and borrowings, general and administrative costs and provision for credit losses.

The principal business activities of the Wealth Management segment are (i) the investment management activities of FRIM, which manages investments for individuals and institutions in equity securities, fixed income securities, balanced portfolios, and alternative investments; (ii) our money market mutual fund activities through third-party providers and the brokerage activities of FRSC (these two activities collectively, “Brokerage and Investment”); (iii) sales of insurance policies and annuity contracts through FRSC and FRIM; (iv) trust and custody services provided by the Trust Company; and (v) our foreign exchange activities conducted on behalf of clients. The primary sources of revenue for this segment are investment management fees, brokerage and investment fees, insurance fees, trust fees and foreign exchange fee income. In addition, the Wealth Management segment earns a deposit earnings credit for client deposit accounts that are maintained at the Bank, including sweep deposit accounts. The Wealth Management segment’s principal expenses are personnel-related costs and other general and administrative expenses.

Income tax expense for the segments is presented based on the segment’s contribution to total consolidated tax expense. Tax preference items are allocated to the segment responsible for the related investments resulting in the tax preference item.

The following tables present the operating results, goodwill and total assets of the Bank's two reportable segments, as well as any reconciling items:

($ in thousands)	Commercial Banking	Wealth Management	Reconciling Items	Consolidated Total
At or for the Year Ended December 31, 2020				
Net interest income	$ 3,141,078	$ 121,474	$ —	$ 3,262,552
Provision for credit losses	157,091	—	—	157,091
Noninterest income from contracts with customers [1]	24,540	518,436	(40,142)	502,834
Other noninterest income	99,086	52,313	—	151,399
Noninterest income	123,626	570,749	(40,142)	654,233
Amortization of intangibles	253	7,504	—	7,757
Other noninterest expense	1,915,331	542,783	(40,142)	2,417,972
Noninterest expense	1,915,584	550,287	(40,142)	2,425,729
Income before provision for income taxes	1,192,029	141,936	—	1,333,965
Provision for income taxes	230,984	38,830	—	269,814
Net income	$ 961,045	$ 103,106	$ —	$ 1,064,151
Goodwill	$ 24,604	$ 147,012	$ —	$ 171,616
Total Assets	$141,884,320	$1,066,381	$(448,567)	$142,502,134
At or for the Year Ended December 31, 2019				
Net interest income	$ 2,674,061	$ 90,106	$ —	$ 2,764,167
Provision for credit losses	61,690	—	—	61,690
Noninterest income from contracts with customers [1]	27,470	464,246	(34,171)	457,545
Other noninterest income	77,287	42,388	—	119,675
Noninterest income	104,757	506,634	(34,171)	577,220
Amortization of intangibles	1,809	10,065	—	11,874
Other noninterest expense	1,723,634	445,124	(34,171)	2,134,587
Noninterest expense	1,725,443	455,189	(34,171)	2,146,461
Income before provision for income taxes	991,685	141,551	—	1,133,236
Provision for income taxes	163,132	39,775	—	202,907
Net income	$ 828,553	$ 101,776	$ —	$ 930,329
Goodwill	$ 24,604	$ 147,012	$ —	$ 171,616
Total Assets	$115,720,424	$ 831,846	$(288,636)	$116,263,634

[1] The Commercial Banking segment consists of noninterest income from contracts with customers related to deposit fees and the Wealth Management segment consists of investment management, brokerage and investment, insurance and trust fees, and foreign exchange fee income.

($ in thousands)	Commercial Banking	Wealth Management	Reconciling Items	Consolidated Total
At or for the Year Ended December 31, 2018				
Net interest income	$ 2,420,252	$ 80,856	$ —	$ 2,501,108
Provision for credit losses	76,092	—	—	76,092
Noninterest income from contracts with customers [(1)]	24,935	432,317	(34,473)	422,779
Other noninterest income	83,107	37,559	—	120,666
Noninterest income	108,042	469,876	(34,473)	543,445
Amortization of intangibles	3,546	12,701	—	16,247
Other noninterest expense	1,516,089	418,856	(34,473)	1,900,472
Noninterest expense	1,519,635	431,557	(34,473)	1,916,719
Income before provision for income taxes	932,567	119,175	—	1,051,742
Provision for income taxes	164,002	33,912	—	197,914
Net income	$ 768,565	$ 85,263	$ —	$ 853,828
Goodwill	$ 51,435	$147,012	$ —	$ 198,447
Total Assets	$98,709,441	$681,869	$(186,106)	$99,205,204

(1) The Commercial Banking segment consists of noninterest income from contracts with customers related to deposit fees and the Wealth Management segment consists of investment management, brokerage and investment, insurance and trust fees, and foreign exchange fee income.

The reconciling items for revenues include fees for managing the Bank's investment portfolio by FRIM and intercompany management fees related to the training and licensing of the Bank's licensed representatives by FRSC. The reconciling items for assets include subsidiary funds on deposit with the Bank and any intercompany receivable that is reimbursed at least on a quarterly basis.

Note 26. Subsequent Events

The Bank evaluated the effects of events that have occurred subsequent to the year ended December 31, 2020.

In February 2021, the Bank completed a public offering of 29,900,000 depositary shares, each representing a 1/40th interest in a share of the Bank's 4.250% Noncumulative Perpetual Series L Preferred Stock ("Series L Preferred Stock"), at a public offering price of $25.00 per depositary share. The Bank issued 747,500 shares of the Series L Preferred Stock in connection with the offering. Total net proceeds, after underwriting discounts and estimated expenses, were approximately $733.1 million. The Series L Preferred Stock qualifies as Tier 1 capital under regulatory guidelines.

On February 8, 2021, the Bank announced that it is calling for redemption of all of the outstanding shares of its 5.50% Noncumulative Perpetual Series G Preferred Stock (the "Series G Preferred Stock") on March 30, 2021 (the "Series G Redemption Date"). All 6,000,000 depositary shares, representing a 1/40th interest in the Series G Preferred Stock, will be redeemed at a redemption price of $25.00 per depositary share, representing an aggregate amount of $150.0 million, plus all accrued and unpaid dividends from, and including, December 30, 2020 to, but excluding, the Series G Redemption Date.

Beginning in January 2021, the Economic Aid Act authorized additional funding under the PPP loan program through March 31, 2021 for small business borrowers that continue to be impacted by COVID-19. These PPP loans have the same terms as the loans originated under the CARES Act, except that they have a minimum 5-year maturity. As of February 24, 2021, the Bank had approximately 3,300 additional PPP loans totaling approximately $500 million that have been approved by the SBA.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors
First Republic Bank:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of First Republic Bank and subsidiaries' (the Bank) as of December 31, 2020 and 2019, the related consolidated statements of income and comprehensive income, changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes (collectively, the consolidated financial statements). We also have audited the Bank's internal control over financial reporting as of December 31, 2020, 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Bank as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Bank maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020 based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Bank has changed its method of accounting for the recognition and measurement of credit losses as of January 1, 2020 due to the adoption of *ASU 2016-13—Financial Instruments—Credit Losses (ASC 326): Measurement of Credit Losses on Financial Instruments and subsequent related ASUs*.

Basis for Opinions

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

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

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

Definition and Limitations of Internal Control Over Financial Reporting

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

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

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the Audit Committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgment. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

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Assessment of the Allowance for Credit Losses on Loans that Share Similar Risk Characteristics

As discussed in Note 4 to the consolidated financial statements, the Bank's total allowance for credit losses for loans as of December 31, 2020 was $635.0 million. Of this amount, $584.5 million is related to expected credit losses for those loan pools that share similar risk characteristics (the collective ACLL). The Bank estimated the collective ACLL using a current expected credit losses methodology which utilizes probability of default ("PD") and loss given default ("LGD") models and loss rate models (collectively, the "quantitative models"), expert judgment, and qualitative factors. The PD and LGD models use a single macroeconomic scenario which incorporates forward-looking macroeconomic information and loan specific risk characteristics over a reasonable and supportable period. These models calculate estimated losses using the product of PD and LGD to produce a loss rate. The loss rate models use the relationship between historical losses, historical macroeconomic information, and forward-looking macroeconomic information over a reasonable and supportable period to produce a loss rate. The quantitative models also incorporate prepayment (or repayment) projections over the reasonable and supportable period. After the reasonable and supportable period, the Bank reverts on a straight-line basis over a reversion period to its historical loss rate and historical prepayment (or repayment) speed for the remaining life of the loans. The historical loss rate and historical prepayment (or repayment) speed are based on the average net charge-offs and average prepayment (or repayment) speeds, respectively, over a ten year historical period for all loans except tax-exempt business loans, for which a 15-year historical period is used. In addition, a portion of the collective ACLL is determined by expert judgment. Expert judgment is based on credit attributes specific to certain loan types and reflect the specific loan characteristics or other factors, specifically idiosyncratic risks or risks related to newer loan products, that could result in estimated credit losses. The Bank also includes adjustments to the collective ACLL based on qualitative factors not reflected in the quantitative models or expert judgment but are likely to cause estimated credit losses. Qualitative factors are developed using a systematic methodology and are comprised of adjustments to historical loss information for asset-specific risk characteristics and current economic conditions.

We identified the assessment of the collective ACLL as a critical audit matter. A high degree of audit effort, including specialized skills and knowledge, and subjective and complex auditor judgment was involved in the assessment of the collective ACLL due to significant measurement uncertainty. Specifically, the assessment encompassed the evaluation of the collective ACLL methodology, including (1) the quantitative models, and their key assumptions: historical periods used to calculate loss rates, loan pools that share similar risk characteristics, prepayments, the selection of the single macroeconomic scenario and relevant assumptions, the reasonable and supportable forecast periods, and the reversion periods, (2) the expert judgment together with the credit attributes specific to the certain loan types that they are based on, and (3) the qualitative factors related to the nature and volume of the loan portfolio changes and the existence and effects of credit concentrations, and the degree to which such factors impacted each portfolio. Further, the assessment encompassed the evaluation of the conceptual soundness and performance of the quantitative models, and their key assumptions. In addition, auditor judgment was required to evaluate the sufficiency of audit evidence obtained over the collective ACLL.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Bank's measurement of the collective ACLL estimate, including controls over the:

- development of the collective ACLL methodology
- development of the quantitative models
- identification and determination of key assumptions used in the quantitative models

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

(continued from previous page)

- performance monitoring of the quantitative models and their key assumptions
- development of the expert judgment together with the credit attributes specific to the certain loan types
- determination of the qualitative factors related to the nature and volume of the loan portfolio changes and the existence and effects of credit concentrations, and the degree to which these qualitative factors impacted each portfolio.

We evaluated the Bank's process to develop the collective ACLL estimate by testing certain sources of data, factors, and assumptions that the Bank used, and considered the relevance and reliability of such data, factors, and assumptions. In addition, we involved credit risk professionals with specialized skills and knowledge, who assisted in:

- evaluating the Bank's collective ACLL methodology for compliance with U.S. generally accepted accounting principles
- evaluating judgments made by the Bank relative to the development and performance testing of the quantitative models, and their key assumptions, by comparing them to relevant Bank-specific metrics and trends and the applicable industry and regulatory practices
- assessing the conceptual soundness and performance testing of the quantitative models, and their key assumptions, by inspecting the model documentation to determine whether the models are suitable for their intended use
- evaluating the Bank's selection of a single macroeconomic forecast scenario, including the underlying assumptions, by comparing them to the Bank's business environment, relevant industry practices, and publicly available forecasts
- evaluating the lengths of the historical periods, reversion periods and reasonable and supportable forecast periods by comparing them to specific portfolio risk characteristics and trends
- evaluating and challenging the expert judgment, together with the credit attributes specific to certain loan types that they are based on, by inspecting underlying documentation, comparing underlying methodologies to the applicable industry and regulatory practices, and assessing external publicly available credit metrics used in such methodologies by comparing them to specific portfolio risk characteristics
- determining whether the loan pools are segmented by similar risk characteristics by comparing to the Bank's business environment and internal metrics, and relevant industry practices
- evaluating the systematic methodology used to develop the qualitative factors and the effect of those factors on the collective ACLL compared with relevant credit risk factors and consistency with credit trends and identified limitations of the underlying quantitative models

We also assessed the sufficiency of the audit evidence obtained related to the collective ACLL by evaluating the:

- cumulative results of the audit procedures
- qualitative aspects of the Company's accounting practices
- potential bias in the accounting estimate.

/s/ KPMG LLP

We have served as the Bank's auditor since 2010.

San Francisco, California
February 26, 2021

FIRST REPUBLIC BANK
MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of First Republic Bank and subsidiaries (the Bank) is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. The Bank's internal control over financial reporting is designed by, or under the supervision of the Bank's principal executive and principal financial officers and effected by the Bank's board of directors, management and other personnel, 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. The Bank's internal control over financial reporting includes those policies and procedures that:

(i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Bank;

(ii) 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 Bank are being made only in accordance with authorizations of management and directors of the Bank; and

(iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Bank'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.

The Bank's management assessed the effectiveness of the Bank's internal control over financial reporting as of December 31, 2020, using the criteria for effective internal control over financial reporting set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in *Internal Control—Integrated Framework (2013)*. Based on this assessment, management concluded that, as of December 31, 2020, the Bank's internal control over financial reporting was effective.

KPMG LLP, the independent registered public accounting firm that audited the Bank's consolidated financial statements as of December 31, 2020 included in this Annual Report on Form 10-K, issued an audit report on the Bank's internal control over financial reporting. KPMG's audit report appears on page 207.

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

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

As required by SEC rules, we carried out an evaluation of the effectiveness of the design and operation of our "disclosure controls and procedures," as such term is defined in Rule 13a-15(e) under the Securities Exchange Act as of the end of the period covered by this report. Our management, including our chief executive officer and chief financial officer, supervised and participated in the evaluation. Based on that evaluation, the chief executive officer and the chief financial officer concluded that our disclosure controls and procedures, as of December 31, 2020, were effective for providing reasonable assurance that information required to be disclosed by us in such reports was accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

See "Item 8. Financial Statements and Supplementary Data."

Changes in Internal Control Over Financial Reporting

There was no significant change in our internal control over financial reporting during the quarter ended December 31, 2020 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

This information is incorporated by reference to the Bank's 2021 Proxy Statement that will be filed with the FDIC pursuant to Regulation 14A not later than 120 days after the end of the Bank's fiscal year.

Item 11. Executive Compensation.

This information is incorporated by reference to the Bank's 2021 Proxy Statement that will be filed with the FDIC pursuant to Regulation 14A not later than 120 days after the end of the Bank's fiscal year.

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

The information is incorporated by reference to the Bank's 2021 Proxy Statement that will be filed with the FDIC pursuant to Regulation 14A not later than 120 days after the end of the Bank's fiscal year.

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

This information is incorporated by reference to the Bank's 2021 Proxy Statement that will be filed with the FDIC pursuant to Regulation 14A not later than 120 days after the end of the Bank's fiscal year.

Item 14. Principal Accountant Fees and Services.

This information is incorporated by reference to the Bank's 2021 Proxy Statement that will be filed with the FDIC pursuant to Regulation 14A not later than 120 days after the end of the Bank's fiscal year.

PART IV

Item 15. Exhibit and Financial Statement Schedules.

(1) Financial Statements:

See "Item 8. Financial Statements and Supplementary Data."

(2) Financial Statement Schedules:

Financial Statement schedules are omitted either because they are not required or are not applicable, or because the required information is shown in the Financial Statements or notes thereto.

(3) Exhibits:

The exhibits to this Annual Report on Form 10-K listed below have been included with, or incorporated into, the copy of this report filed with the Federal Deposit Insurance Corporation and on our website. Copies of individual exhibits will be furnished to shareholders upon written request to First Republic Bank.

Exhibit No.	Description
3.1	Restated Articles of Incorporation of First Republic Bank, incorporated by reference to Exhibit 3.1 of Form 8-K filed on December 1, 2020.
3.2	Certificate of Determination for the Bank's 4.125% Noncumulative Perpetual Series K Preferred Stock, par value $0.01 per share, incorporated by reference to Exhibit 3.1 of Form 8-K filed on September 16, 2020.
3.3	Certificate of Determination for the Bank's 4.250% Noncumulative Perpetual Series L Preferred Stock, par value $0.01 per share, incorporated by reference to Exhibit 3.1 of Form 8-K filed on February 3, 2021.
3.4	Amended and Restated Bylaws of First Republic Bank, effective as of January 29, 2021, incorporated by reference to Exhibit 3.1 of Form 8-K filed on February 1, 2021.
4.1	Specimen stock certificate of First Republic Bank's common stock, incorporated by reference to Exhibit 4.1 of Amendment No. 2 to the Bank's Registration Statement on Form 10 filed on December 7, 2010.
4.2	Deposit Agreement, dated February 10, 2016, by and among the Bank, Computershare Inc., Computershare Trust Company, N.A. and the holders from time to time of the Depositary Receipts described therein, incorporated by reference to Exhibit 4.1 of Form 8-K filed on February 10, 2016.
4.3	Form of Depositary Receipt (included in Exhibit 4.2).
4.4	Fiscal and Agency Paying Agreement, dated August 1, 2016, between the Bank and The Bank of New York Mellon Trust Company, N.A., incorporated by reference to Exhibit 4.1 of Form 8-K filed on August 1, 2016.
4.5	Form of Note (included in Exhibit 4.4).
4.6	Fiscal and Agency Paying Agreement, dated February 13, 2017, between the Bank and The Bank of New York Mellon Trust Company, N.A., incorporated by reference to Exhibit 4.1 of Form 8-K filed on February 13, 2017.

Exhibit No.	Description
4.7	Form of Note (included in Exhibit 4.6).
4.8	Fiscal and Paying Agency Agreement, dated June 6, 2017, between the Bank and The Bank of New York Mellon Trust Company, N.A., incorporated by reference to Exhibit 4.1 of Form 8-K filed on June 6, 2017.
4.9	Form of Note (included in Exhibit 4.8).
4.10	Deposit Agreement, dated June 7, 2017, by and among the Bank, Computershare Inc., Computershare Trust Company, N.A. and the holders from time to time of the Depositary Receipts described therein, incorporated by reference to Exhibit 4.1 of Form 8-K filed on June 7, 2017.
4.11	Form of Depositary Receipt (included in Exhibit 4.10).
4.12	Deposit Agreement, dated June 12, 2018, by and among the Bank, Computershare Inc., Computershare Trust Company, N.A. and the holders from time to time of the Depositary Receipts described therein, incorporated by reference to Exhibit 4.1 of Form 8-K filed on June 12, 2018.
4.13	Form of Depositary Receipt (included in Exhibit 4.12).
4.14	Deposit Agreement, dated December 3, 2019, by and among the Bank, Computershare Inc., Computershare Trust Company, N.A. and the holders from time to time of the Depositary Receipts described therein, incorporated by reference to Exhibit 4.1 of Form 8-K filed on December 3, 2019.
4.15	Form of Depositary Receipt (included in Exhibit 4.14).
4.16	Fiscal and Paying Agency Agreement, dated February 12, 2020, between the Bank and The Bank of New York Mellon Trust Company, N.A., incorporated by reference to Exhibit 4.1 of Form 8-K filed on February 14, 2020.
4.17	Form of Note (included in Exhibit 4.16).
4.18	Deposit Agreement, dated September 16, 2020, by and among the Bank, Computershare Inc., Computershare Trust Company, N.A. and the holders from time to time of the Depositary Receipts described therein, incorporated by reference to Exhibit 4.1 of Form 8-K filed on September 16, 2020.
4.19	Form of Depositary Receipt (included in Exhibit 4.18).
4.20	Deposit Agreement, dated February 9, 2021, by and among the Bank, Computershare Inc., Computershare Trust Company, N.A. and the holders from time to time of the Depositary Receipts described therein, incorporated by reference to Exhibit 4.1 of Form 8-K filed on February 9, 2021.
4.21	Form of Depositary Receipt (included in Exhibit 4.20).
4.22	Other instruments defining the rights of debt holders. The registrant hereby agrees to furnish to the FDIC, upon request, copies of instruments defining the rights of holders of long-term debt of the registrant and its consolidated subsidiaries; currently no issuance of debt of the registrant exceeds 10% of the assets of the registrant and its subsidiaries on a consolidated basis.
4.23	Description of Securities.
10.1	Employment Agreement, dated June 15, 2010, between First Republic Bank and James H. Herbert, II, incorporated by reference to Exhibit 10.1 of Form 10-Q filed on May 8, 2012. (1)
10.2	(i) Amendment No. 1, dated February 23, 2012, to the Employment Agreement, dated June 15, 2010, between James H. Herbert, II and the Bank, and (ii) the Restricted Stock Agreement, dated as of February 27, 2012, between James H. Herbert, II and the Bank, attached as Attachment A thereto, incorporated by reference to Exhibit 10.3 of Form 10-Q filed on May 8, 2012. (1)

Exhibit No.	Description
10.3	Employment Agreement Amendment No. 2, effective February 25, 2014, to the Employment Agreement, dated June 15, 2010, as amended effective February 27, 2012, between James H. Herbert, II and the Bank, incorporated by reference to Exhibit 10.6 of Form 10-K filed on February 28, 2014. (1)
10.4	Employment Agreement Amendment No. 3, effective December 1, 2015, to the Employment Agreement, dated June 15, 2010, as amended effective February 27, 2012 and February 25, 2014, between James H. Herbert, II and the Bank, incorporated by reference to Exhibit 10.1 of Form 8-K filed on December 2, 2015. (1)
10.5	Employment Agreement Amendment No. 4, effective May 10, 2017, to the Employment Agreement dated June 15, 2010, as amended effective February 27, 2012, February 25, 2014 and December 1, 2015, between James H. Herbert, II and the Bank, incorporated by reference to Exhibit 10.1 of Form 8-K filed on May 12, 2017. (1)
10.6	Employment Agreement Amendment No. 5, effective February 13, 2019, to the Employment Agreement dated June 15, 2010, as amended effective February 27, 2012, February 25, 2014, December 1, 2015 and May 10, 2017, between James H. Herbert, II and the Bank, incorporated by reference to Exhibit 10.1 of Form 8-K filed on February 19, 2019. (1)
10.7	Employment Agreement Amendment No. 6, effective February 24, 2021, to the Employment Agreement dated June 15, 2010, as amended effective February 27, 2012, February 25, 2014, December 1, 2015, May 10, 2017 and February 13, 2019, between James H. Herbert, II and the Bank, filed herewith. (1)
10.8	Advances and Security Agreement, dated as of July 1, 2010, between the Federal Home Loan Bank of San Francisco and First Republic Bank, incorporated by reference to Exhibit 10.6 of the Bank's Registration Statement on Form 10 filed on November 10, 2010.
10.9	Form of Director and Officer Indemnification Agreement, incorporated by reference to Exhibit 10.7 of the Bank's Registration Statement on Form 10 filed on November 10, 2010. (1)
10.10	2010 Omnibus Award Plan, as amended and restated effective May 12, 2015, incorporated by reference to the Bank's Definitive Proxy Statement for the 2015 Annual Meeting of Shareholders on Schedule 14A filed on March 31, 2015.
10.11	Form of Nonqualified Stock Option Agreement under the 2010 Omnibus Award Plan—Time Vesting for California Resident, incorporated by reference to Exhibit 10.9 of the Bank's Registration Statement on Form 10 filed on November 10, 2010. (1)
10.12	Form of Nonqualified Stock Option Agreement under the 2010 Omnibus Award Plan—Performance Vesting for California Resident, incorporated by reference to Exhibit 10.10 of the Bank's Registration Statement on Form 10 filed on November 10, 2010. (1)
10.13	Form of Nonqualified Stock Option Agreement under the 2010 Omnibus Award Plan—Time Vesting for Non-California Resident, incorporated by reference to Exhibit 10.11 of the Bank's Registration Statement on Form 10 filed on November 10, 2010. (1)
10.14	Form of Nonqualified Stock Option Agreement under the 2010 Omnibus Award Plan—Performance Vesting for Non-California Resident, incorporated by reference to Exhibit 10.12 of the Bank's Registration Statement on Form 10 filed on November 10, 2010. (1)
10.15	Form of Supplemental Executive Retirement Plan, incorporated by reference to Exhibit 10.13 of the Bank's Registration Statement on Form 10 filed on November 10, 2010. (1)
10.16	Form of Endorsement Method Split-Dollar Agreement, incorporated by reference to Exhibit 10.14 of the Bank's Registration Statement on Form 10 filed on November 10, 2010. (1)
10.17	Form of Performance Share Unit Agreement—Performance Vesting under the 2010 Omnibus Award Plan, incorporated by reference to Exhibit 10.2 of Form 10-Q filed on August 5, 2016. (1)

Exhibit No.	Description
10.18	First Republic Bank 2017 Executive Incentive Plan, incorporated by reference to Annex A of the Bank's Definitive Proxy Statement for the 2017 Annual Meeting of Shareholders on Schedule 14A filed on March 27, 2017. [(1)]
10.19	First Republic Bank 2017 Omnibus Award Plan, incorporated by reference to Annex B of the Bank's Definitive Proxy Statement for the 2017 Annual Meeting of Shareholders on Schedule 14A filed on March 27, 2017. [(1)]
10.20	Form of Performance Share Unit Agreement—Performance Vesting under the 2017 Omnibus Award Plan, incorporated by reference to Exhibit 10.2 of Form 10-Q filed on August 8, 2017. [(1)]
10.21	Form of Performance Share Unit Agreement—Performance Vesting under the 2017 Omnibus Award Plan, incorporated by reference to Exhibit 10.1 of Form 10-Q filed on May 9, 2018. [(1)]
10.22	Performance Share Unit Agreement, dated as of June 15, 2018, between James H. Herbert, II and the Bank, incorporated by reference to Exhibit 10.1 of Form 10-Q filed on August 8, 2018. [(1)]
10.23	Form of Performance Share Unit Agreement—Performance Vesting under the 2017 Omnibus Award Plan, incorporated by reference to Exhibit 10.2 of Form 10-Q filed on August 8, 2018. [(1)]
10.24	Form of Performance Share Unit Agreement—Performance Vesting under the 2017 Omnibus Award Plan, incorporated by reference to Exhibit 10.35 of Form 10-K filed on February 28, 2019. [(1)]
10.25	Form of Restricted Stock Unit Agreement—Time Vesting under the 2017 Omnibus Award Plan, incorporated by reference to Exhibit 10.1 of Form 10-Q filed on May 9, 2019. [(1)]
10.26	Form of Restricted Stock Unit Agreement—Time Vesting under the 2017 Omnibus Award Plan, incorporated by reference to Exhibit 10.1 of Form 10-Q filed on May 8, 2020. [(1)]
10.27	Form of Performance Share Unit Agreement—Performance Vesting under the 2017 Omnibus Award Plan, incorporated by reference to Exhibit 10.1 of Form 10-Q filed on November 6, 2020. [(1)]
10.28	Form of Performance Share Unit Agreement—Performance Vesting under the 2017 Omnibus Award Plan, incorporated by reference to Exhibit 10.2 of Form 10-Q filed on November 6, 2020. [(1)]
10.29	Form of Restricted Stock Unit Agreement—Time Vesting under the 2017 Omnibus Award Plan, filed herewith. [(1)]
10.30	First Republic Bank Deferred Compensation Plan, as amended effective July 1, 2018, incorporated by reference to Exhibit 10.36 of Form 10-K filed on February 28, 2019. [(1)]
21	Subsidiaries of First Republic Bank.
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

[(1)] This exhibit is a management contract or a compensatory plan or arrangement.

Item 16. Form 10-K Summary.

None.

SIGNATURES

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

FIRST REPUBLIC BANK

By: /s/ MICHAEL J. ROFFLER **Michael J. Roffler**	Executive Vice President and Chief Financial Officer	February 26, 2021

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 Bank and in the capacities and on the dates indicated.

Signatures	Title	Date
/s/ JAMES H. HERBERT, II **(James H. Herbert, II)**	Chairman, Chief Executive Officer and Director	February 26, 2021
/s/ HAFIZE GAYE ERKAN **(Hafize Gaye Erkan)**	President and Director	February 26, 2021
/s/ MICHAEL J. ROFFLER **(Michael J. Roffler)**	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 26, 2021
/s/ OLGA TSOKOVA **(Olga Tsokova)**	Senior Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 26, 2021
/s/ KATHERINE AUGUST-DEWILDE **(Katherine August-deWilde)**	Vice Chair and Director	February 26, 2021
/s/ FRANK J. FAHRENKOPF, JR. **(Frank J. Fahrenkopf, Jr.)**	Director	February 26, 2021
/s/ BORIS GROYSBERG **(Boris Groysberg)**	Director	February 26, 2021
/s/ SANDRA R. HERNÁNDEZ **(Sandra R. Hernández)**	Director	February 26, 2021
/s/ PAMELA J. JOYNER **(Pamela J. Joyner)**	Director	February 26, 2021
/s/ REYNOLD LEVY **(Reynold Levy)**	Director	February 26, 2021
/s/ DUNCAN L. NIEDERAUER **(Duncan L. Niederauer)**	Director	February 26, 2021
/s/ GEORGE G.C. PARKER **(George G.C. Parker)**	Director	February 26, 2021

EXHIBIT 21

FIRST REPUBLIC BANK

SUBSIDIARIES

The following is a list of the subsidiaries of First Republic Bank as of December 31, 2020:

Subsidiary [1]	State of Incorporation or Organization
First Republic Lending Corporation	Nevada
First Republic Investment Management, Inc.	New York
First Republic Securities Company, LLC	Nevada
First Republic Trust Company of Delaware LLC	Delaware
First Republic Trust Company of Wyoming LLC	Wyoming

(1) Excluded from the above list are subsidiaries which in the aggregate do not constitute a significant subsidiary.

EXHIBIT 31.1

Certification of Chief Executive Officer
Pursuant to §302 of The Sarbanes-Oxley Act of 2002

I, James H. Herbert, II, certify that:

1. I have reviewed this annual report on Form 10-K of First Republic Bank;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant, and we have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and

   (d) Disclosed in this annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of the annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2021

/s/ James H. Herbert, II

Name: James H. Herbert, II
Title: Chairman and Chief Executive Officer

EXHIBIT 31.2

Certification of Chief Financial Officer
Pursuant to §302 of The Sarbanes-Oxley Act of 2002

I, Michael J. Roffler, certify that:

1. I have reviewed this annual report on Form 10-K of First Republic Bank;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant, and we have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and

    (d) Disclosed in this annual report any change in the registrant's internal controls over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of the annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2021

/s/ Michael J. Roffler

Name: Michael J. Roffler
Title: Executive Vice President and Chief Financial Officer

EXHIBIT 32.1

Certification of Chief Executive Officer
Pursuant to §906 of The Sarbanes-Oxley Act of 2002

The undersigned, the Chairman and Chief Executive Officer of First Republic Bank (the "Company"), hereby certifies on the date hereof, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K for the year ended December 31, 2020 (the "Form 10-K"), filed concurrently herewith by the Company, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that the information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 26, 2021

/s/ James H. Herbert, II

Name: James H. Herbert, II
Title: Chairman and Chief Executive Officer

EXHIBIT 32.2

Certification of Chief Financial Officer
Pursuant to §906 of The Sarbanes-Oxley Act of 2002

The undersigned, the Executive Vice President and Chief Financial Officer of First Republic Bank (the "Company"), hereby certifies on the date hereof, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K for the year ended December 31, 2020 (the "Form 10-K"), filed concurrently herewith by the Company, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that the information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 26, 2021

/s/ Michael J. Roffler

Name: Michael J. Roffler
Title: Executive Vice President and Chief Financial Officer