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, 2022

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 5.125% 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
Depositary Shares, Each Representing a 1/40th Interest in a Share of 4.000% Noncumulative Perpetual Series M Preferred Stock	FRC-PrM	New York Stock Exchange
Depositary Shares, Each Representing a 1/40th Interest in a Share of 4.500% Noncumulative Perpetual Series N Preferred Stock	FRC-PrN	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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☐ No ☐

Indicate by check mark 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 ☐	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. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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 $144.20 as of June 30, 2022 was approximately $18.1 billion.

The number of shares outstanding of the Bank's common stock, par value $0.01 per share, as of February 13, 2023 was 186,218,729.

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 2023 annual meeting of shareholders (the "2023 Proxy Statement") are incorporated in Part III of the Form 10-K.

The index to Exhibits appears on page 203.

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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 Custody or Administration
AUM	Assets Under Management
Basel Committee	Basel Committee on Banking Supervision
BHCA	Bank Holding Company Act of 1956
Board	Board of Directors of the Bank
bp	Basis Point
BSA	The Bank Secrecy Act, as amended by the USA PATRIOT Act of 2001
CAGR	Compounded Annual Growth Rate
CCPA	California Consumer Privacy Protection Act of 2018
CCyB	Countercyclical Capital Buffer
CD	Certificate of Deposit
CECL	Current Expected Credit Losses
CECL Capital Rule	Regulatory Capital Rule: Revised Transition of the Current Expected Credit Losses Methodology for Allowances
CET1	Common Equity Tier 1
CFPB	Consumer Financial Protection Bureau
CFTC	Commodity Futures Trading Commission
CIBCA	Change in Bank Control Act
CIDI	Covered Insured Depository Institution
CLTV	Combined LTV
CMT	Constant Maturity Treasury
COFI	11th District Monthly Weighted Average Cost of Funds Index
COFI Repl Index	Freddie Mac's Enterprise 11th District COFI Institutional Replacement Index
Commissioner	Commissioner of the DFPI
COSO	Committee of Sponsoring Organizations of the Treadway Commission
COVID-19	COVID-19 Pandemic
CPRA	California Privacy Rights Act
CRA	Community Reinvestment Act
DFPI	California Department of Financial Protection and Innovation
DFS	Department of Financial Services
DIF	FDIC's Deposit Insurance Fund
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act
DOJ	U.S. Department of Justice
DTA	Deferred Tax Asset
DTI	Debt-to-income
DTL	Deferred Tax Liability
EFC	Economic Forecast Committee
EGRRCPA	Economic Growth, Regulatory Relief, and Consumer Protection Act
EPS	Earnings Per Common Share
ERISA	U.S. Employee Retirement Income Security Act of 1974, as amended
ESPP	Employee Stock Purchase Plan
Fannie Mae	Federal National Mortgage Association
FASB	Financial Accounting Standards Board
FCA	Financial Conduct Authority
FCRA	Fair Credit Reporting Act
FDIA	Federal Deposit Insurance Corporation Improvement Act of 1991
FDIC	Federal Deposit Insurance Corporation
Federal COFI	Federal Cost of Funds Index
Federal Reserve	Federal Reserve System
FHLB	Federal Home Loan Bank
FINRA	Financial Industry Regulatory Authority
FinTech	Financial Technology
FOMC	Federal Open Market Committee of the Federal Reserve System
Freddie Mac	Federal Home Loan Mortgage Corporation

Term	Definition
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
G-SIBs	Global Systemically Important Banks
GAAP	Accounting Principles Generally Accepted in the United States of America
GLBA	Gramm-Leach-Bliley Act
HELOC	Home Equity Line of Credit
HQLA	High-Quality Liquid Assets
IBA	ICE Benchmark Administration
ICE	Intercontinental Exchange
Investment Advisers Act	Investment Advisers Act of 1940, as amended
IRC	Internal Revenue Code of 1986, as amended
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
LIBOR	London Interbank Offered Rate
LMI	Low- and Moderate- Income
LTV	Loan-to-Value Ratio
MBS	Mortgage-Backed Securities
MSA	Mortgage Servicing Asset
MSR	Mortgage Servicing Right
NAV	Net Asset Value
NSFR	Net Stable Funding Ratio
OCC	Office of the Comptroller of the Currency
PD	Probability of Default
PPP	SBA's Paycheck Protection Program
PPPLF	PPP Liquidity Facility
PSU	Performance Share Unit
Repo	Repurchase Agreement in U.S. Government Securities
RESPA	Real Estate Settlement Procedures Act
RSU	Restricted Stock Unit
RWA	Risk-Weighted Asset
SBA	U.S. Small Business Administration
SEC	U.S. Securities and Exchange Commission
Series F Preferred Stock	Noncumulative Perpetual Series F Preferred Stock
Series G Preferred Stock	Noncumulative Perpetual Series G Preferred Stock
Series H Preferred Stock	Noncumulative Perpetual Series H Preferred Stock
Series I Preferred Stock	Noncumulative Perpetual Series I Preferred Stock
Series J Preferred Stock	Noncumulative Perpetual Series J Preferred Stock
Series K Preferred Stock	Noncumulative Perpetual Series K Preferred Stock
Series L Preferred Stock	Noncumulative Perpetual Series L Preferred Stock
Series M Preferred Stock	Noncumulative Perpetual Series M Preferred Stock
Series N Preferred Stock	Noncumulative Perpetual Series N Preferred Stock
Simplifications Rule	Simplifications to the Capital Rule Pursuant to the Economic Growth and Regulatory Paperwork Reduction Act of 1996
SLR	Supplementary Leverage Ratio
SOFR	Secured Overnight Financing Rate
TDR	Troubled Debt Restructuring
TILA	Truth-in-Lending Act
Trust Company	First Republic Trust Company, a division of the Bank, First Republic Trust Company of Delaware LLC, and First Republic Trust Company of Wyoming LLC
USD LIBOR	U.S. Dollar LIBOR
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.

Some amounts presented within this Annual Report on Form 10-K may not recalculate due to rounding.

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, net interest income, net interest margin, capital expenditures, liquidity, dividends, capital structure, investments or other financial items;
- Forecasts of future economic conditions generally and in our market areas in particular, including expectations relating to interest rates and inflation, which may affect our net interest margin, the ability of borrowers to repay their loans and the value of real property or other property held as collateral for such loans;
- Expectations regarding the banking and wealth management industries;
- Descriptions of plans or objectives of management for future operations, products or services;
- 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;
- 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;

- Expectations regarding our executive transitions;
- 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:

- Economic and market conditions, including volatility in the financial and securities markets, which may negatively impact the valuation of our investment securities portfolio, credit losses on our loans and debt securities, and the performance of our wealth management business;
- Inflation;
- Interest rate risk and credit risk;
- 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, floods, pandemics, other public health emergencies or acts of terrorism affecting the markets in which we operate;
- The adverse effects of climate change on our business, clients and counterparties;
- The negative impacts and disruptions resulting from COVID-19 or any other public health emergencies, or fear thereof, on our colleagues and clients, the communities we serve and the domestic and global economy;
- Our ability to maintain and follow high underwriting standards;
- 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;
- The regulatory environment in which we operate, our regulatory compliance and future regulatory requirements, which may result in costs, fees, penalties, business restrictions, reputational harm or other adverse consequences;
- Any changes to liquidity and regulatory capital requirements applicable to us, including more stringent liquidity requirements and heightened capital requirements applicable if we become a Category III banking organization under the FDIC's regulations by reporting $250 billion or more in total consolidated assets or $75 billion or more in weighted short-term wholesale funding, nonbank assets or off-balance sheet exposure, based on a four quarter trailing average;
- Legislative and regulatory actions affecting us and the financial services industry, such as the Dodd-Frank Act and changes thereto, which have resulted in and may in the future result in increased compliance costs, limitations on activities and requirements to hold additional capital;
- Changes in federal, state or local tax laws;

- 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
- 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. We specialize in delivering exceptional, relationship-based service and provide a complete line of products, including residential, commercial and personal loans, deposit services, and private wealth management, including investment, brokerage, insurance, trust and foreign exchange services. 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; Jackson, Wyoming; and Bellevue, Washington. We provide our services through 93 offices, of which 84 are licensed deposit-taking offices and 9 offices offer exclusively lending, wealth management or trust services. We have been continuously headquartered in San Francisco since our inception. As of December 31, 2022, we had total assets of $212.6 billion, total deposits of $176.4 billion, total equity of $17.4 billion and wealth management AUM and AUA of $271.2 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 racial equality and educational and health programs to economically disadvantaged students and families.

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 previously, also through 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 Part II, "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Business Segments" and Note 25 in Part II, "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 37 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 bankers 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, brokerage, trust, custody, financial planning, insurance 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 "Wealth Management" 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, and other business loans, and from April 2020 to June 2021, PPP loans, until the program ceased new loan originations. In addition, we originate stock secured loans, other secured loans and unsecured 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 underserved and underrepresented communities. As of December 31, 2022, single family real estate secured loans represented $98.8 billion, or 59% of our total loan portfolio and had a weighted average LTV at origination of 59%. Our average loan commitment size was $1 million based on outstanding loans at December 31, 2022. Our relationship managers and the executive loan approval team carefully review loans as part of our credit approval process to 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, 2022, HELOCs were $2.8 billion, or 2% of our total loan portfolio. As of December 31, 2022, the average HELOC commitment size was $577,000, and the weighted average CLTV including the first residential mortgage, if any, at origination was 49%.

Single Family Construction. Our single family construction loan portfolio includes loans to individual clients for the construction and ownership of 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. As of December 31, 2022, single family construction loans were $1.2 billion, or 1% of our total loan portfolio. As of December 31, 2022, the average single family construction loan commitment size was $4 million, and the weighted average LTV at origination was 55%.

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, 2022, multifamily loans were $21.6 billion, or 13% of our total loan portfolio. As of December 31, 2022, the average multifamily mortgage loan commitment size was $3 million, and the weighted average LTV at origination was 52%.

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, 2022, commercial real estate loans were $10.8 billion, or 6% of our loan portfolio. As of December 31, 2022, the average commercial real estate loan commitment size was $4 million, and the weighted average LTV at origination was 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, 2022, multifamily/commercial construction loans were $2.1 billion, or 1% of our loan portfolio. As of December 31, 2022, the average multifamily/commercial construction loan commitment size was $8 million, and the weighted average LTV at origination was 54%.

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 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, and museums. In addition, we provide operating lines of credit and term loans to other business clients to meet their working capital needs. As of December 31, 2022, business loans and lines of credit were $18.8 billion, or 11% of total loans outstanding. Of this total, $12.3 billion was in the form of lines of credit. The utilization rate for these lines of credit was 33.4% at December 31, 2022.

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, 2022, stock secured and other secured loans totaled $7.7 billion, or 5% 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 and access additional financing at fixed interest rates. As of December 31, 2022, unsecured loans totaled $3.0 billion, or 2% 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	$900,000
LTV	60%
Liquidity	$685,000
Credit Score	780

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 $240.7 billion of single family residential loans (including HELOCs and single family construction loans) and have experienced cumulative net loan losses of only $45 million, or 2 bps, in 37 years (including losses on loans sold).

Our loan charge-off experience on all loan types for the last fifteen years is presented in the following table. Net loan losses include charge-offs against the ACL and beginning in 2009, any charge-offs recorded as a reduction in unaccreted discounts established in purchase accounting.

($ in millions)	Net Loan Charge-offs	
	Ratio [1]	Amount
Year ended December 31:		
2022	0.00%	$ 3
2021	0.00%	$ 2
2020	0.00%	$ 2
2019	0.01%	$ 5
2018	0.00%	$ 3
2017	0.00%	$ 1
2016	0.00%	$ 2
2015	0.01%	$ 2
2014	0.01%	$ 2
2013	0.05%	$ 14
2012	0.01%	$ 2
2011	0.03%	$ 5
2010	0.09%	$ 16
2009	0.48%	$ 84
2008	0.08%	$ 12

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

Our net loan charge-off ratio was less than 0.5% of average loans at its highest in 2009, and net loan charge-offs have averaged 2 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, business bankers, related loan production staff and credit administration staff, at which credit risk management is frequently discussed. Since 1986, our compensation program for bankers has included meaningful credit clawback provisions on all loan originations to encourage our personnel to avoid and monitor for credit delinquency issues, which we believe leads the relationship managers and business bankers 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 and business bankers 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 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, we sold single family loans through a securitization in 2020. 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.

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 $3.5 billion as of December 31, 2022. 31% of total loans serviced as of December 31, 2022 had outstanding balances greater than $970,800, which is the maximum conforming loan amount for a single family loan. Of the total loans serviced as of December 31, 2022, 53% were fixed-rate loans with a weighted average contractual rate of 3.45%, 19% were hybrid ARMs with a weighted average contractual rate of 3.33%, and 29% were adjustable-rate loans with a weighted average contractual rate of 6.14%. The weighted average contractual rate of the total loans serviced was 4.20% as of December 31, 2022. The weighted average servicing fee collected was 0.26% for 2022. 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.

Deposits

As of December 31, 2022, we held $176.4 billion of total deposits, and deposit funding comprised 92% of total funding liabilities. Total deposits have grown at a CAGR of 21% 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, the service skills of our employees, and other funding sources. Based on the most recent publicly available regulatory filings, as of December 31, 2022, we were the 12th largest bank in the nation measured by total deposits.

As of December 31, 2022, our deposit base consisted of 59% in checking deposits, 27% in money market checking, savings and passbook deposits, and 14% in CDs. Our deposit base is also well-diversified geographically and by client type. As of December 31, 2022, 40% of our total deposits came from the San Francisco Bay Area, 19% from New York, 9% from Boston, 8% from Los Angeles, 6% from wealth management sweep programs and 18% from other deposits (which consist of Preferred Banking and Preferred Banking Office deposits in other locations, as well as other deposits that are not attributable to any specific deposit location). As of December 31, 2022, 63% of our total deposits were from business clients and 37% of our total deposits were from consumer clients.

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, public deposits, third-party broker dealer sweeps, negotiable CDs, foreign exchange and other deposits that are not attributable to any specific deposit location. As of December 31, 2022, we held $100.1 billion of deposits associated with our Preferred Banking activities, $49.6 billion of deposits associated with our Preferred Banking Offices, $10.2 billion of wealth management deposits generated through our sweep programs, and $16.6 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, 55% had total deposits over $500 million at December 31, 2022.

Brokered deposits, public deposits, third-party broker dealer sweeps, negotiable CDs, foreign exchange and other deposits not attributable to any specific deposit location have also been a significant source of deposit growth during 2022. The Bank has access to a number of liquidity resources that can be used as an alternative to funding sources such as FHLB advances. The year-over-year increase in other deposits is a reflection of the Bank's funding cost optimization.

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 loan origination products and services and deposit services, which provides us with an opportunity for our relationship managers to refer other products and services, such as wealth management. Wealth management AUM and AUA were, in aggregate, $271.2 billion at December 31, 2022.

Investment Management Services. We provide traditional full-service portfolio management and customized client portfolios through FRIM. When appropriate, 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 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 $112.2 billion as of December 31, 2022.

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. 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, 2022, AUA for brokerage and investment activities were $138.9 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 firm, 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 previously, also through 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 $20.1 billion of AUA as of December 31, 2022.

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.

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.

In early 2022, the Bank successfully migrated to a new core banking system. The core conversion project was the largest technology project that the Bank has undertaken, spanning several years and requiring strong collaboration across many teams. The new system will further enable exceptional client service and strengthen the Bank's regulatory and operational infrastructure as the Bank continues to grow.

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, 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, 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 may result 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 firms, 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.

Attracting, Retaining, and Developing Employees

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, 2022, we had 7,213 full-time equivalent employees, including temporary employees and independent contractors, compared to 6,295 full-time equivalent employees as of December 31, 2021, an increase of 15%. Our 5-year average voluntary employee turnover, excluding temporary employees and independent contractors, from 2018-2022, was 8%.

We believe that internal mobility and professional development opportunities lead to greater employee engagement. We have implemented several cultural and educational programs designed to promote opportunities for advancement in keeping with our culture and values. We support the long-term career aspirations of our employees through education and personal development.

Diversity, Equity & Inclusion (DEI)

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 having a diverse team and inclusive culture creates opportunities to better serve our diverse communities. We are also focused on increasing education, mentorship, and understanding within our workforce to promote racial equity.

First Republic has always been and remains committed to fostering an inclusive workplace culture that embraces and encourages diverse perspectives and backgrounds. For example, we have 10 employee resource groups called Colleague Communities, which offer a place for colleagues to foster networks and build strong relationships with members who share a common interest. These networks embrace our values and further our community outreach, education and professional development efforts.

Community Development

We are committed to supporting our communities through our lending and investing activities as well as through volunteering and giving. As a leading financial institution, we place a focus on affordable housing and homeownership, financial literacy and education. Our community engagement strategy is informed by our Community Advisory Board and is aligned with the CRA. First Republic is proud to have achieved a satisfactory CRA rating for 30 consecutive years.

As part of our commitment to our communities, we committed to taking action to create a more sustainable future. This includes, among other actions, our efforts to remain carbon neutral across our Scope 1 and Scope 2 emissions and purchase renewable energy to cover 100% of the Bank's electricity needs. Additionally, we maintain a lending policy that restricts lending to many environmentally sensitive industries.

In 2021, as part of our effort to expand support for extraordinary nonprofit organizations in our communities, we established the First Republic Foundation. We are committed to responsibly and strategically deploying resources to provide opportunities for the underserved and underrepresented in the communities we serve. We provide grants and professional development opportunities to entrepreneurial nonprofit organizations to seed innovative initiatives in the areas of education, affordable housing, and arts and culture. The Foundation's grants are in addition to the Bank's long standing philanthropic support through its many community reinvestment activities and partnerships with nonprofit organizations.

Health, Safety, and Wellness

The Bank is committed to supporting employees' physical, emotional, and financial wellness by offering flexible and competitive benefits. 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.

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 (our primary regulator as a California state-chartered bank) and the FDIC (our primary federal prudential regulator) as an insured state bank without a holding company and that is not a member of the Federal Reserve. We are also subject to supervision, regulation, examination and enforcement by the CFPB with respect to consumer

protection laws and regulations. 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 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.

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. Existing and future rulemakings have resulted, and may continue to result, in a significant cost of compliance.

Changes in banking laws and regulations that have had 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. Additional changes to applicable laws or regulations could result in additional costs and have a material effect on our operations. In particular, changes in Congress as well as changes in the leadership of the federal financial regulatory agencies in the United States could result in further changes to banking laws and regulations, although the timing and extent to which this may occur is presently uncertain. In addition, actions by the current 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. 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.

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%.

As a "non-advanced approaches" banking organization under the Basel III Capital Rules, the Bank is subject to rules that provide for simplified capital requirements relating to the threshold deductions for MSAs; certain DTAs arising from temporary differences; and investments in the capital of unconsolidated financial institutions.

During 2020, the federal banking agencies adopted the CECL Capital Rule, which provided 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 until January 2022 and subsequently to phase in the effects through December 2024. The Bank elected to adopt the CECL Capital Rule and delay the estimated impact of CECL on its regulatory capital.

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 (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 for the four calendar quarters preceding the current calendar quarter).

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 0% risk weight to all PPP covered loans that are not pledged to the PPPLF. The Bank did not participate in the PPPLF, and therefore, has applied a 0% 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, commonly referred to as "Basel III end-game" or 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, the Basel III end-game standards will generally be effective on January 1, 2023, with an aggregate output floor phasing in through January 1, 2028. However, the FDIC and other federal banking agencies have not yet proposed a rulemaking to implement the Basel III-end game standards into U.S. bank capital rules. 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 these standards on the Bank will depend on the manner in which they are 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 have taken significant steps to address the impact of COVID-19. The U.S. Government enacted legislation providing emergency assistance, direct stimulus payments and opportunities for forbearance for certain loans among other forms of relief. There have also been a number of responsive bank regulatory actions, including mandates requiring financial institutions to work constructively with borrowers affected by COVID-19. In addition, states and local authorities adopted temporary bans on evictions and foreclosures, and flexibility regarding rental payments. Federal moratoriums on evictions and foreclosures that were implemented during COVID-19 were extended late into 2021. Although many of these programs have expired, governmental authorities may take additional actions in the future to limit the adverse impact of COVID-19 on borrowers and tenants.

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, 2022, 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.

Tailoring Rules

In November 2019, the federal banking agencies adopted regulations under the EGRRCPA for tailoring the applicability of enhanced prudential standards for banking organizations with total consolidated assets of $100 billion or more (the "Tailoring Rules"). Under the Tailoring Rules, the most stringent requirements are applied to U.S. G-SIBs as Category I institutions, and the least stringent requirements are applied to large domestic banking organizations with $100 billion in total consolidated assets but 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. Under the Tailoring Rules, a standalone bank without a holding company, is not subject to enhanced capital and liquidity standards like the LCR and NSFR Rules, SLR and CCyB requirements, or company-run stress testing requirements under the FDIC's regulations until it meets the asset thresholds of a Category III banking organization. Therefore, the Bank will not be subject to such requirements until it reports, based on a four-quarter trailing average, total consolidated assets of $250 billion or more, or $100 billion in total consolidated assets and $75 billion in nonbank assets, off-balance sheet exposure, or weighted short-term wholesale funding.

Nevertheless, we maintain on balance sheet liquidity and a portfolio of HQLA. In addition, in the normal course of operations, the Bank periodically performs internal capital stress tests as a part of its overall capital planning process. 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. For example, after meeting the asset threshold(s) for a Category III banking organization, based on a four-quarter trailing average, the Bank expects to be subject to SLR, LCR, and NSFR requirements, as implemented under the FDIC's regulations, and the CCyB (which is currently set at zero) in addition to the capital conservation buffer. These additional requirements would result in the Bank having to increase its holdings of HQLA, such as Federal Reserve Bank balances, U.S. Treasury and agency securities, or other liquidity sources, 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 could potentially reduce our net interest margin 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 condition.

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.

Climate-Related Risk Management and Environmental Regulation

In recent years, the federal banking agencies have increased their focus on climate-related risks affecting the operations of banks, the communities they serve and the broader financial system. Accordingly, the agencies have begun to enhance their supervisory expectations regarding banks' climate risk management practices, including by encouraging banks to: ensure that management of climate-related risk exposures has been incorporated into existing governance structures; evaluate the potential impact of climate-related risks on the bank's financial condition, operations and business objectives as part of its strategic planning process; account for the effects of climate change in stress testing scenarios and systemic risk assessments; revise expectations for credit portfolio concentrations based on climate-related factors; consider investments in climate-related initiatives and lending to communities disproportionately impacted by the effects of climate change; evaluate the impact of climate change on the bank's borrowers and consider possible changes to underwriting criteria to account for climate-related risks to mortgaged properties; incorporate climate-related financial risk into the bank's internal reporting, monitoring and escalation processes; and prepare for the transition risks to the bank associated with the adjustment to a low-carbon economy and related changes in laws, regulations, governmental policies, technology, and consumer behavior and expectations.

On October 21, 2021, the Financial Stability Oversight Council, of which the FDIC is a member, published a report identifying climate-related financial risks as an "emerging threat" to financial stability. On March 30, 2022, the FDIC published proposed principles similar to those issued by the other federal financial agencies for FDIC-supervised banks with $100 billion in total consolidated assets. As climate-related supervisory guidance is formalized, and relevant risk areas and corresponding control expectations are further refined, we may be required to incur compliance, operating, maintenance and remediation costs in order to conform to such requirements.

In addition, states, such as California and New York, are considering taking similar actions on climate-related financial risks. State and local climate-related legislative and regulatory initiatives may also require us to expend capital to conform to applicable requirements.

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. The FDIC's regulations 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 2020, the FDIC amended its brokered deposits rule to clarify and modernize the FDIC's regulatory framework, and thereby established a new framework for analyzing a "deposit broker" and determining whether deposits should be treated as brokered deposits. The final rule took effect on April 1, 2021 and full compliance was required as of January 1, 2022.

Resolution Plans

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.

After a suspension of resolution plan submission due to rulemaking efforts, 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 would resume requiring resolution plan submissions for insured depository institutions with $100 billion or more in assets, including the Bank, under a modified

approach. On June 25, 2021, the FDIC issued a policy statement on its modified approach for resolution plans for insured depository institutions, which describes how the agency will implement certain aspects of the CIDI Rule with respect to CIDIs with $100 billion or more in total assets. As instructed by the FDIC, the Bank submitted its resolution plan under the modified approach by December 2022.

On October 24, 2022, the FDIC and the Federal Reserve issued an advanced notice of proposed rulemaking seeking comment on whether the agencies should impose Total Loss Absorbing Capacity, Long-Term Debt, and other resolvability requirements that currently apply to G-SIBs to large banking organizations. Proposed changes to the CIDI Rule could impact the Bank's resolution planning requirements. The prospects and timing for the adoption of a final rule amending the CIDI Rule, as well as the potential application of any final rule to the Bank, are uncertain at this time.

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. 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 the second quarter of 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. On October 18, 2022, the FDIC adopted a final rule, applicable to all insured depository institutions, to increase initial base deposit insurance assessment rate schedules uniformly by 2 bps beginning the first quarterly assessment period of 2023. The FDIC also concurrently maintained the Designated Reserve Ratio for the DIF at 2% for 2023. According to the FDIC, the growth in insured deposits during the first and second quarters of 2020 caused the DIF reserve ratio to drop below the statutory minimum of 1.35%. The increase in the assessment rate schedules is intended to increase the likelihood that the DIF reserve ratio will reach the statutory minimum of 1.35% by the statutory deadline of September 30, 2028.

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, which became effective on April 1, 2021, removed 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.

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 BSA and its implementing regulations, impose significant compliance and due diligence obligations on financial institutions, and include criminal and civil penalties for noncompliance and an expanded extra-territorial reach. 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 written customer identification and customer due diligence programs. 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, monetary, and reputational consequences for the institution.

Consumer Financial Protection Bureau Supervision

The CFPB 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 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 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 DTI 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 mandatory compliance date under the first final rule was July 1, 2021, but subsequently was delayed by the CFPB to October 1, 2022. The second final rule will apply to covered transactions for which institutions receive an application after the compliance date for the first final rule.

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; however, in October of 2022, the SEC adopted a final regulation implementing the incentive-based recovery (or "clawback") provisions of the Dodd-Frank Act. The final regulation directs stock exchanges to require listed companies to implement clawback policies to recover incentive-based compensation paid to current or former executive officers in the event of material noncompliance with any financial reporting requirement under the securities laws, and to disclose their clawback policies and their actions under those policies. Once the stock exchanges publish requirements pursuant to the regulation, companies, including the Bank, will have 60 days from the effective date of the listing standards to comply.

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 under the Home Mortgage Disclosure Act (HMDA), requiring the bank to maintain, report, and publicly disclose loan-level information about mortgages. 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. We are also subject to analogous CRA requirements in certain states in which we have or may establish branch offices.

On May 5, 2022, the federal banking agencies issued a joint notice of proposed rulemaking to revise the regulations implementing the CRA. Under the proposed rule, the agencies would evaluate bank performance across the varied activities they conduct and the communities in which they operate, and tailor CRA evaluations and data collection based on bank size and type. Further, the agencies would also emphasize smaller value loans and investments that may have a greater impact on and be more responsive to the needs of LMI persons, and would update CRA assessment areas to include activities associated with online and mobile banking, branchless banking, and

hybrid models. In addition, the proposed rule would establish a metrics-based approach to CRA evaluations of retail lending and community development financing activities, including through the establishment of public benchmarks, and would clarify eligible CRA activities, such as affordable housing, that are focused on LMI, underserved and rural communities. The prospects and timing for the adoption by the agencies of a final rule are not certain at this time.

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. If a pattern or practice of lending discrimination is alleged by a regulator, then that agency may refer the matter to the DOJ for investigation. In December 2012, the DOJ and CFPB entered into a Memorandum of Understanding under which the agencies have agreed to share information, coordinate investigations and have generally committed to strengthen their coordination efforts. In October 2021, the DOJ announced a new initiative to enforce fair lending requirements and combat redlining.

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."

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 its implementing regulations, but are not required to report quantitative metrics or otherwise demonstrate compliance with the Volcker Rule's 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. FRIM, an SEC-registered investment adviser subsidiary of the Bank, advises a number of entities that are deemed to be "covered funds" and must comply with the Volcker Rule's "covered fund" provisions in its provision of service and interactions with such entities. The amendments to the regulations that implement the Volcker Rule have not thus far had material impact on our business or operations.

Privacy and Cybersecurity

Under federal and state statutes and FDIC and SEC regulations, we are limited in our ability to disclose certain non-public information about consumers to third parties. These statutes and regulations require notices to consumers of our privacy policies and practices and, in some circumstances, allow consumers to prevent disclosure of certain personal information to a third party. These regulations affect how consumer information is transmitted through diversified financial companies or conveyed to outside vendors. Changes or additions to these regulations, including those implementing the GLBA, the FCRA, or the CCPA, for example, may result in implementation and risk management costs, as well as risk to the Bank. The CCPA, which became effective on January 1, 2020 and was amended on November 1, 2020 by the California Privacy Rights Act ballot initiative, gives consumers rights to: request access to personal information we have collected about them, obtain documentation of whether that information has been sold or shared with others, seek deletion of their personal information (subject to certain exceptions), opt out of the sale of their personal information, and not to be discriminated against for exercising these rights. The CPRA both modified the CCPA substantially through amendments that will take effect on January 1, 2023, and created the California Privacy Protection Agency, a government agency with the authority to issue regulations and guidance and to enforce the CCPA. Although the CPRA expanded the scope of the CCPA, it did not alter the CCPA's exemption for financial institutions with respect to personal information that is protected under the GLBA or FCRA, which means the CCPA will not apply to our practices with respect to personal information of customers seeking or obtaining products for personal, family, or household purposes. Similar privacy laws have been and may be adopted by other states where we or our subsidiaries do business or by the federal government.

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.

Cybersecurity is a key operational risk area for banking organizations. Malicious actors continue to focus on critical infrastructure sectors, including the financial sector, and have sought to take advantage of the increased reliance by certain institutions on third-party hardware and software systems. These developments, among others, have resulted in enhanced supervisory expectations regarding the security and resiliency of banks' information technology systems and cyber risk management practices, and their use of third parties in the provision of financial services.

In addition, every state has enacted data breach statutes that require, in some instances, notifications to individuals or state agencies. With regard to rulemaking activity in this area at the federal level, in November 2021, the federal banking agencies issued a final rule that imposes upon banking organizations and their service providers new notification requirements for significant cybersecurity incidents. Specifically, the final rule requires banking organizations to notify their primary federal regulator as soon as possible and no later than 36 hours after the discovery of an incident that has materially disrupted or degraded, or is reasonably likely to materially disrupt or degrade, the banking organization's ability to deliver services to a material portion of its customer base, jeopardize the viability of key operations of the banking organization, or pose a threat to the financial stability of the United States. Banks' service providers are required under the final rule to notify any effected bank to or on behalf of which the service provider provides services "as soon as possible" after determining that it has experienced an incident that materially disrupts or degrades, or is reasonably likely to materially disrupt or degrade, covered services provided to such bank for as much as four hours. The final rule took effect on April 1, 2022 and banks and their service providers were required to be in compliance with the requirements of the rule by May 1, 2022. Additional cybersecurity laws have been proposed and may be adopted by states where we or our subsidiaries do business or by the federal government.

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.

Guidance for Managing Third-Party Risks

The FDIC regulates its supervised institutions' relationships with and management of third parties. Interagency guidance of the federal banking agencies requires us to conduct due diligence and oversight in third-party business relationships and to control risks in the relationship to the same extent as if the activity were directly performed by the Bank. On July 13, 2021, the FDIC along with the Federal Reserve and OCC published for comment proposed interagency guidance on managing risks associated with third-party relationships. The proposed guidance includes a framework based on sound risk management principles in developing risk management practices throughout the life cycle of a third-party relationships (e.g., due diligence, contract negotiation, oversight, ongoing monitoring and termination). The proposed guidance also discusses the agencies' supervisory reviews of third-party relationships. In the proposed guidance, the agencies identify the types of third-party relationships covered, and clarified that the guidance covers relationships with affiliates and subsidiaries that provide services to the banking organization. On August 27, 2021, the federal banking agencies issued guidance on expectations for banks in selecting and entering into relationships with financial technology companies that support critical aspects of a bank's operations, such as its information technology infrastructure. The guidance encourages banks to consider a number of factors when engaging such companies, including their business experience and qualifications, financial condition, record of legal and regulatory compliance, risk management plans and practices and internal controls, and operational resilience, among others.

Cryptocurrency Activities

The financial services industry is undergoing rapid technological changes, with frequent introductions of new technology-driven products and services including internet services, cryptocurrencies and payment systems. At present, digital assets and digital asset service providers and markets are not subject to extensive regulation. On April 7, 2022, the FDIC issued a financial institution letter requiring its supervised institutions to provide notice and obtain supervisory feedback prior to engaging in any crypto-related activities. Additionally, on January 3, 2023, the federal banking agencies issued a joint statement on crypto-asset risks to banking organizations,

highlighting key risks associated with crypto assets that could affect banks, and reminding banks to engage in supervisory discussions with their supervisory office regarding proposed and existing crypto-asset related activities, and ensure that the bank can perform any crypto-related activities in a safe and sound manner and in compliance with applicable laws and regulations prior to launching any such activities.

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 current presidential administration continues to 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, although we expect that Congress will continue to devote substantial attention in 2023 to consumer protection matters, through greater oversight of the CFPB's and the and the federal banking agencies' efforts in this area. There have been several changes in the leadership and senior staffs of the federal banking agencies, the CFPB, CFTC, SEC, and the Treasury Department. The potential impact of any changes in agency personnel, policies and priorities on the financial services sector, including the Bank, cannot be predicted at this time. Of note, the agencies have adopted more aggressive enforcement policies in respect of a range of regulatory compliance matters. 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 current 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. Congress may also consider additional relief measures in light of the spread and impact of new variants of the COVID-19 virus.

Available Information

We make available, free of charge through the Investor Relations section of 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. The address for our website is firstrepublic.com. The information on our website is not incorporated by reference into this Form 10-K.

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. 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. 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 7.

Risk Factor Summary

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.
- 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 has been and may in the future be adversely affected by conditions in the global 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 has been, and may in the future 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.
- Fiscal challenges facing the U.S. government could negatively impact financial markets, which in turn could have an adverse effect on our financial position or results of operations.
- 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.

Business and 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.
- Leadership transitions and our ability to attract and retain key personnel could adversely affect our business.
- 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 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 have been and could continue to be interrupted to the extent our third-party service providers experience difficulties, terminate their services or fail to comply with banking regulations.
- We and our third-party service providers have been, and may in the future be, adversely affected by disruptions to our respective network and computer systems as a result of denial-of-service and other cyber attacks, any of which could cause substantial harm.
- 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 additional security breaches.
- 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 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.
- Pandemics or other public health emergencies have caused and may in the future cause 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.

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.
- The investment management and brokerage businesses are highly regulated.

- We are subject to stringent capital requirements, which impact our ability to conduct business.
- If we continue to grow and if we report $250 billion or more in total consolidated assets or $75 billion or more in weighted short-term wholesale funding, nonbank assets or off-balance sheet exposure, we would become subject to new and more stringent regulatory requirements.
- Differences in regulation can affect our ability to compete effectively.
- Reforms of Fannie Mae and Freddie Mac and the FHLBs could adversely impact us.
- We could be held responsible for environmental liabilities of properties acquired through foreclosure.
- We are subject to legal and litigation risk.
- Tax regulations could be subject to potential legislative, administrative or judicial changes or interpretations.
- The transition away from LIBOR and other 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.

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, 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 or underinsured 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, 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. Increases in prevailing market interest rates 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 compared to conforming loans and may result in higher levels of realized losses. Furthermore, a substantial portion of our single family loans consists of jumbo loans. 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 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.

A 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, typically slow the execution of new leases and could result in rent volatility and increased vacancies. 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, the loans or portions thereof often lack real estate collateral, 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 market-wide 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.

The physical risk of climate change, including the increased frequency and severity of extreme weather events and natural disasters, could disrupt our operations and those of our third-party service providers, clients and counterparties, which may cause loan and other losses, increase our costs and negatively affect our ability to service and interact with our clients. The transition risk of climate change, including the transition to a less carbon-dependent economy, may also have a

negative impact on the financial condition or operations of our clients and counterparties, which may decrease revenues from those clients and counterparties and increase the credit risk associated with loans and other credit exposures to those clients and counterparties. We have made commitments to offset certain emissions, purchase renewable energy and restrict lending to certain environmentally sensitive industries. Our efforts to meet these commitments could strain our resources, put us at a disadvantage to our competitors, or otherwise adversely affect our business. 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 well as any decisions we make to continue or conduct or change our activities in response to considerations relating to climate change. If we are unable to achieve our objectives or commitments relating to climate change or our response to climate change is perceived to be ineffective or insufficient, our business and reputation may suffer. Climate change has also impacted, and may continue to impact, the broader economy, including through disruptions to supply chains. As a result, our business, results of operations or financial condition may be adversely affected.

Concerns regarding climate risk have led to, and are expected to 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 the perspectives of regulators, shareholders, employees, clients and other stakeholders, may affect our product and service offerings. Federal and state banking regulators and supervisory authorities, shareholders and other stakeholders have increasingly viewed financial institutions such as us as playing an important role in helping to address risks related to climate change, both directly and with respect to their clients, which has resulted in increased pressure regarding the disclosure and management of climate risks and related lending, investment and advisory activities. We may also become subject to new or heightened regulatory requirements related to climate change, such as climate-related disclosure requirements and requirements relating to operational resiliency or stress testing for various climate stress scenarios. Any such new or heightened requirements could result in increased regulatory compliance or other costs or higher capital requirements. In addition, we could face increased regulatory, reputational and legal scrutiny as a result of our climate and other sustainability-related commitments.

The risks associated with, and the perspective of regulators, shareholders, employees, clients and other stakeholders regarding climate change are continuing to evolve rapidly, which can make it difficult to assess the ultimate impact on us of climate change-related risks and uncertainties, and we expect that climate change-related risks will increase over time.

Market and Interest Rate Risk

Our business has been and may in the future be adversely affected by conditions in the global 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. These conditions can change suddenly and negatively.

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 our wealth management business. Unfavorable market conditions can result in, among other things, 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, and 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. In difficult market conditions, our usual process may be less reliable than when market conditions are favorable.

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, including as a result of the current or anticipated impact of military conflicts, such as the conflict between Russia and Ukraine, terrorism or other geopolitical events, 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 volume, pricing and mix of both interest-earning assets and interest-bearing liabilities which, in turn, may be impacted by external factors such as the 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. The timing, pace, and methods of monetary stimulus withdrawal by the FOMC can meaningfully impact the interest rate environment, which may affect our net interest income and net interest margin.

The rate paid on a portion of 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 and levels of liquidity in markets. 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 continue to move noninterest-bearing deposits into interest-bearing accounts, thus increasing overall deposit costs. Higher funding costs may continue to reduce the Bank's net interest margin and net interest income. For example, given the significant and rapid increases in interest rates in 2022, we experienced rapid migration of deposits to higher yielding products and asset classes. A prolonged period of high or increasing interest rates may cause us to experience an acceleration of deposit migration, which could adversely affect our liquidity.

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 would likely 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. However, 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 prolonged periods with a flatter or inverted yield curve could cause our net interest income and net interest margin to contract. Changes in the yield curve may also adversely affect the duration and expected cash flows of certain callable investment securities or loans by increasing call option exercise or prepayment risks. We have experienced net interest margin compression and expect to continue to experience compression while higher interest rates and inflationary pressures persist, which could have a material adverse effect on our financial results and condition.

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 decreases in servicing income. Moreover, due to the magnitude and pace of interest rate increases over the past year, and anticipated interest rate increases in 2023, the mortgage market may continue to experience challenges, and our loan portfolio may grow at a slower rate than we have experienced in the past.

Our wealth management business has been, and may in the future 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 has been, and may in the future 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 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.

Fiscal challenges facing the U.S. government could negatively impact financial markets, which in turn could have an adverse effect on our financial position or results of operations.

A U.S. government debt default, threatened debt default, or downgrade of the sovereign credit ratings of the United States by credit rating agencies, could have an adverse impact on financial markets, interest rates and economic conditions in the United States and worldwide.

U.S. debt ceiling and budget deficit concerns in recent years have increased the possibility of U.S. government shutdowns, forced federal spending reductions, debt defaults, credit-rating downgrades and an economic slowdown or recession in the United States. Although U.S. lawmakers have in the past enacted legislation to raise the federal debt ceiling on multiple occasions, ratings agencies have in the past lowered or threatened to lower the U.S. long-term sovereign credit rating.

Political tensions may make it difficult for Congress to agree on any further increases to or suspensions of the debt ceiling in a timely matter or at all, which may lead to default by the U.S. government or downgrades of its credit ratings, which could have an adverse effect on our financial position or results of operations. Specifically, interest rates may rise for many consumer loans, which would result in increases in payments on consumer loans.

In addition, many of the investment securities held in the Bank's portfolio are issued by the U.S. government and government agencies and sponsored entities. As a result of uncertain domestic political conditions, including potential future federal government shutdowns, the possibility of the federal government defaulting on its obligations for a period of time due to debt ceiling limitations or other unresolved political issues, investments in financial instruments issued or guaranteed by the federal government pose economic and liquidity risks.

In addition to affecting the price and liquidity of U.S. government securities, a government default or threat of default could disrupt the market for or affect the pricing of Repos, a type of secured financing transaction used by many financial institutions to manage short-term funding needs, invest short-term cash balances and manage inventories of government securities. Overnight rates on Repo transactions are used by the Federal Reserve to calculate SOFR, the benchmark interest rate that is replacing LIBOR on loans and other financial contracts. A disruption in the Repo markets could affect interest rates paid on SOFR-benchmarked loans and could have an adverse impact on overall money markets and the cost of overnight or short-term borrowings, a funding source for the Bank.

A debt default or further downgrades to the U.S. government's sovereign credit rating or its perceived creditworthiness could also adversely affect the ability of the U.S. government to support the financial stability of Fannie Mae, Freddie Mac and the FHLBs, with which the Bank does business, obtains financing, engages with for securitizations of mortgages, and in whose securities the Bank invests.

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 has resulted and may continue to 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. In addition, demand for loans may continue to be impacted while interest rates remain high or increase further.

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.

Business and 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, 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. As a result, 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 firms, 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 driver 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, 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.

Leadership transitions and our ability to attract and retain key personnel could adversely affect our business.

Effective March 13, 2022, Mr. James H. Herbert, II, our founding CEO who led First Republic since it was founded in 1985, transitioned to Executive Chairman and Michael J. Roffler, our former CFO, transitioned to the position of CEO. Leadership changes may create uncertainty among investors, employees, business partners and other stakeholders of the Bank concerning an organization’s future and performance.

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.

In addition, 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. In recent years, the availability of remote working arrangements has increased and has intensified, and could continue to intensify, competition for prospective new employees or impair our ability to retain current employees. Our current or future in-office or remote working arrangements may not meet the needs or expectations of our employees or may not be perceived as favorable compared to the policies of our competitors. The loss of the services of any senior management personnel, relationship managers or wealth managers, or the inability to recruit and retain qualified, diverse 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 diverse 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 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. Deposit balances in the financial system are also partly influenced by factors such as the size of the Federal Reserve balance sheet. 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.

Given the magnitude and pace of rising interest rates, competition with respect to deposit pricing has intensified. Our ability to offer competitive pricing on our deposit products is critical to retaining our deposit base. In 2022, we have needed to offer higher interest rates for deposits, as a result of which our interest expense has increased and net interest margin compressed. If we need to offer higher interest rates to maintain current clients or attract new clients, our interest expense on deposits could continue to 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. For example, in 2022, due to rising interest rates, we continued to see a shift in deposit product mix to higher yielding instruments. We expect this trend will continue, and we may experience higher deposit outflows while high or rising interest rates continue to persist. 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 us and our long-term debt and preferred stock are 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, the rating agencies may, from time to time, 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 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 or that the synergies or benefits are not as great as expected;
- 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, which can be difficult to obtain. 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. 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 have been and could continue to be interrupted to the extent our third-party service providers experience difficulties, 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 (including due to cyber attacks or other incidents described below), 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 and our third-party service providers have been, and may in the future be, adversely affected by disruptions to our respective network and computer systems as a result of denial-of-service and other cyber attacks, any of which could cause substantial harm.

We and our third-party service providers have experienced, and may in the future experience, disruptions and failures in our respective computer systems and network infrastructure or otherwise as a result of denial-of-service and other cyber attacks or other security incidents. Like the financial services industry generally, we are under continuous threat of loss as a common target of cyber attacks and we routinely experience denial-of-service and other cyber attacks or other security incidents. Examples of recent matters that could impact our operations or data (including client data) include two incidents in early 2023 that impacted our third party service providers and their computer systems (and for which our investigation remains ongoing). 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, increased interconnectedness of operating environments, devices and delivery channels, 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. Cyber attacks at third-party service providers are also becoming increasingly common, and, as a result, risks relating to cyber attacks on our vendors have been increasing. Some of these vendors supply essential services to us such as providers of financial information, systems and analytical tools, and providers of electronic payment and settlement systems. Computer break-ins, whether physical or electronic, and other disruptions could jeopardize the security of information stored in and

transmitted through our computer systems and network infrastructure, which may result in significant liability to us and deter potential clients.

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. Any cyber incidents, such as those of our third party vendors, could result, among other things, in increased regulatory scrutiny and adverse regulatory or civil litigation consequences.

The occurrence of a cyber-threat scenario could cause interruptions in our operations and result in the incurrence of significant costs, including those related to forensic analysis and legal counsel, each of which may be required to ascertain the extent of any potential harm to our customers, or employees, or damage to our information systems and any legal or regulatory obligations that may result therefrom. The occurrence of a cyber-threat may therefore have a material adverse effect on our financial condition and results of operations. Risks and exposures related to cybersecurity attacks are expected to remain high for the foreseeable future due to the rapidly evolving nature and sophistication of these threats, as well as due to the expanding use of Internet banking, mobile banking and other technology-based products and services by us and our clients.

Due to the increasing sophistication of such attacks, we have not been able, and may in the future 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 or disclosure 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 or security incidents, including those described above, 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 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. 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 additional security breaches.

Our computer systems are vulnerable to unforeseen problems and threat actors, 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. From time to time, we and our third-party service providers experience cyber attacks, such as Distributed Denial of Service, ransomware or the exploitation of newly found vulnerabilities such as zero-day attacks. Any damage or failure that causes interruptions to our 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 breaches of 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 are subject to certain operational risks, including fraud by employees and third parties and data processing system failures and errors.

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. We offer workplace flexibility to a portion of our employees, allowing them to work remotely from their homes some of the time, and 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. Remote work practices introduce 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 security breaches resulting in destruction or misuse of 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, liability and reputational damage 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. Since COVID-19, many of these entities continue to 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 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.

Pandemics or other public health emergencies have caused and may in the future cause 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.

Disruptions caused by pandemics or other public health emergencies, or the fear of a pandemic or other public health emergency, 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. Pandemics and other public health emergencies have resulted in, and could in the future result in, interruptions in the supply chain that adversely affect many businesses and contribute to higher rates of inflation. Declines in the financial markets may negatively affect our wealth management business by reducing our wealth management fees, reducing the level of AUM or AUA or subjecting us to greater litigation risk.

These disruptions may also impair our clients' ability to repay loans. Further, as a result of pandemic or health emergency-driven disruptions, clients may seek additional loans that they may be unable to repay, particularly to the extent businesses are 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.

From an operational perspective, pandemics and public health emergencies have in the past resulted in and could in the future result in the temporary closures of certain of our offices and the facilities of many of our clients and service providers. Remote working arrangements 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 also 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, public health crises may impair the availability of key employees who are necessary to conduct our business. Actions taken by U.S. or other governmental authorities that are intended to mitigate the effects of a pandemic or other public health emergency, or delays

in the implementation of prior regulatory measures, may result in regulatory uncertainty and impose additional restrictions.

For any pandemic or other public health emergency, the effects on our business and financial condition will depend on, among other things, the duration and severity of the outbreak, development surrounding new strains of any pathogen, the actions to contain the pathogen or treat its impact, including the availability and effectiveness of vaccines, and how quickly and to what extent normal economic and operating conditions can resume. Any pandemic or public health emergency 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.

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, increases in interest rates, volatile 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 2022 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. Our critical accounting policy and estimate is the ACL on loans. Because of the uncertainty of estimates involved in this matter, we may be required to significantly increase the ACL or sustain credit losses that are significantly higher than the reserve provided. Either of these actions 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.

We record an ACL representing the lifetime expected credit losses on our loans, unfunded loan commitments, and held-to-maturity debt securities. 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. 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 will 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 and other laws, regulations and policies applicable to us govern matters ranging from public and regulatory reporting, 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. Laws, regulations and regulatory guidance may be modified at any time, including as a result in changes in the presidential administration, congress or in key personnel at our regulators, and new legislation may be enacted that will affect us or our subsidiaries. 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 consumer compliance, 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, may divert resources from our ongoing business development activities. Notwithstanding our enhancements to these compliance programs, our compliance programs may not be effective and 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.

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.

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 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 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. 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.

The SEC has adopted rules that are intended to limit conflicts of interest for non-retirement and retirement accounts, 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. 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 capital adequacy requirements of the Basel III Capital Rules, as implemented in the FDIC's regulations, 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.

If we continue to grow and if we report $250 billion or more in total consolidated assets or $75 billion or more in weighted short-term wholesale funding, nonbank assets or off-balance sheet exposure, we would become subject to new and more stringent regulatory requirements relating to capital and liquidity.

New and more stringent regulatory requirements will apply to us if we become a Category III banking institution by having $250 billion or more in total consolidated assets or $75 billion or more in weighted short-term wholesale funding, nonbank assets or off-balance sheet exposure based on a trailing four-quarter average. Among other things, we would be subject to enhanced capital and liquidity requirements including the LCR and NSFR rules. As a result, we would be required to increase our holdings of HQLA and/or change the composition of our funding, which could adversely affect our net interest income and net interest margin. Further, we would be subject to the SLR and CCyB, in addition to the capital conservation buffer, under the Basel III Capital Rules and Dodd-Frank Act capital stress testing requirements. The capital, liquidity and stress testing requirements that would apply if we become a Category III institution could result in limitations on our business, as well as increased compliance costs. Depending on our levels of capital and liquidity, stress test results and other factors, we may be limited in the types of activities we may conduct and be limited as to how we utilize our capital, including with respect to dividends. Further, we may be subject to heightened supervisory expectations, which could result in additional regulatory scrutiny, higher penalties, and more severe consequences if we are unable to meet those expectations.

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 are clarified and/or modified by legislative, administrative or judicial changes or interpretations from time to time. Any such changes could adversely affect the Bank, either directly, or indirectly as a result of effects on the Bank's customers. The 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.

The transition away from LIBOR and other 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 that have become subject to recent regulatory guidance and reforms, including reference rates that have been discontinued or are in the process of being discontinued. The United Kingdom's FCA, which regulates LIBOR, and the IBA, the FCA-regulated and authorized administrator of LIBOR, have announced that the most commonly used USD LIBOR settings will cease to be published or cease to be representative after June 30, 2023. All other LIBOR settings ceased to be published or to be representative as of December 31, 2021. In March 2022, President Biden signed the LIBOR Act into law. The LIBOR Act provides a statutory framework to replace USD LIBOR with a benchmark rate based on SOFR for contracts governed by U.S. law that have no fallbacks or fallbacks that would require the use of a poll or LIBOR-based rate. As contemplated by the LIBOR Act, in December 2022, the Board of Governors of the Federal Reserve adopted a rule which identifies different SOFR-based replacement rates for derivative contracts, for cash instruments such as floating-rate notes and preferred stock, for consumer loans, for certain government-sponsored enterprise contracts and for certain asset-backed securities. As the transition away from LIBOR is ongoing, there continues to be uncertainty as to the ultimate effects of LIBOR and other reference rate transition, including the effect on the financial markets for LIBOR-linked financial instruments. In addition, the FHLB of San Francisco ceased calculating and publishing COFI on January 31, 2022.

If and when reference rates, such as COFI and LIBOR, 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 COFI in the first half of 2018 and to LIBOR in the first half of 2019, have transitioned loans indexed to COFI and are currently implementing a transition plan in place with respect to existing loans indexed to LIBOR. In lieu of COFI or LIBOR, new loan originations are generally indexed to Prime or a 12-month average of 1-year CMT.

Although the LIBOR Act includes safe harbors if the SOFR-based replacement rate identified by the Board of Governors of the Federal Reserve is selected, these safe harbors are untested. As a result, and despite the enactment of the LIBOR Act, for the most commonly used USD LIBOR settings, the selection of a successor rate could result in customer disputes or litigation. 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 use in our loan products, 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" and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Business and Financial Statements—Regulatory and Supervisory Matters" 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. 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, as amended by the CPRA, imposes significant requirements on covered companies with respect to consumer data privacy rights. See "Item 1. Business—Supervision and Regulation—Financial Privacy" for additional information on the CCPA and the CPRA. Compliance with the CCPA 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 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, 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, 2022, we provided our services through 84 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; Jackson, Wyoming; and Bellevue, Washington. We have 9 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 2023 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 13, 2023, there were fewer than 20 shareholders of record, although the Bank believes that its shares are held beneficially by approximately 350,000 shareholders.

Common Stock Dividends

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

	2022	2021
Quarter Ended:		
December 31	$0.27	$0.22
September 30	$0.27	$0.22
June 30	$0.27	$0.22
March 31	$0.22	$0.20

We paid a cash dividend for the fourth quarter of 2022 of $0.27 per share of common stock on February 9, 2023 to shareholders of record as of January 26, 2023.

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, 2022 regarding common stock of First Republic Bank to be issued 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. No stock options were outstanding as of December 31, 2022.

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	4,077,209 [1]	$ —	4,307,854 [2]
Equity compensation plans not approved by security holders	—	—	—
Total	4,077,209	$ —	4,307,854

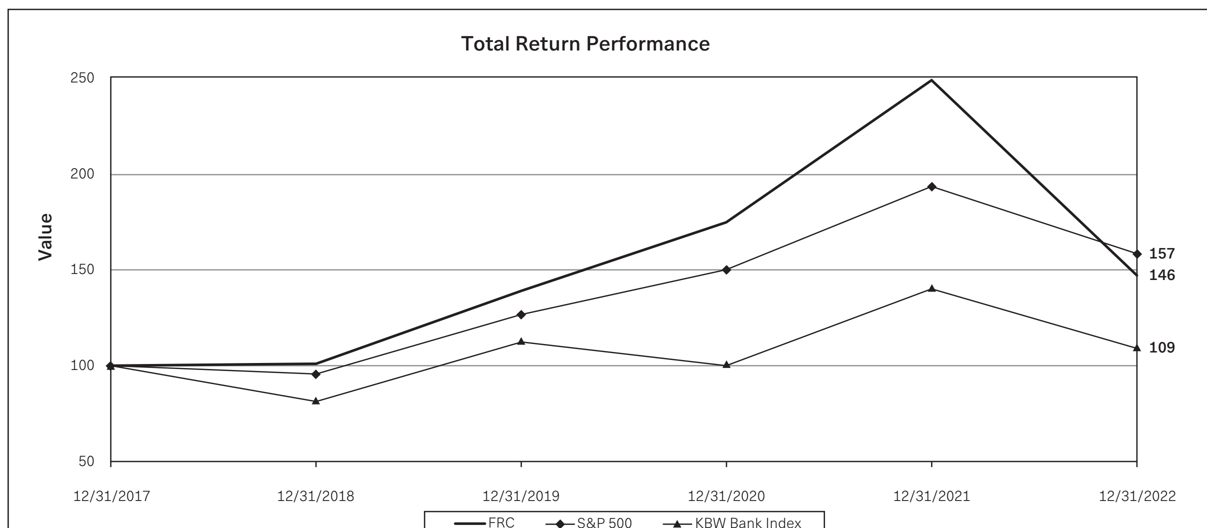
(1) Includes 3,333,832 outstanding RSUs and 743,377 outstanding PSUs, which do not have an exercise price.

(2) The number of shares remaining available for future issuance consists of 324,733 shares reserved for future purchase under the Bank's ESPP and 3,983,121 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, 2017 through December 31, 2022, 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, 2017. The performance of our common stock reflected below is not indicative of our future performance.



	Cumulative Return as of December 31,						5-year CAGR
	2017	2018	2019	2020	2021	2022	
First Republic Bank ("FRC")	$100	$101	$138	$173	$245	$146	8%
S&P 500 Index	$100	$ 96	$126	$149	$191	$157	9%
KBW Bank Index	$100	$ 82	$112	$100	$139	$109	2%

Recent Sales of Unregistered Securities

During the quarter ended December 31, 2022, we sold 63,115 shares of common stock to eligible employees under the ESPP for aggregate cash consideration of $6 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, 2022, we granted 45,743 RSUs, net of forfeitures, that are time vesting. In addition, we granted 15,369 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 officers and employees, and had an aggregate grant date fair value of $8 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.

Purchases of Equity Securities By the Issuer and Affiliated Purchasers

We did not repurchase any of our common stock during the fourth quarter of 2022.

Item 6. [*Reserved*]

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

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, 2021 compared to the year ended December 31, 2020, 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, 2021. 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 7. For a more complete discussion of the factors that could affect our future results, see "Item 1A. Risk Factors."

We earn 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, brokerage, insurance, trust and foreign exchange; (3) fees for deposit services; (4) loan and related fees, including late charge income, loan-related processing fees, prepayment penalties and miscellaneous income on sold loans, and payoff fees; and (5) income from investments in life insurance. We currently operate our business through two business segments: Commercial Banking and Wealth Management.

Averages presented are daily averages unless otherwise indicated.

Non-GAAP Financial Measures

Our management uses and believes that investors benefit from using certain non-GAAP measures of our financial performance, which include tangible book value per common share, return on average tangible common shareholders' equity, and net interest income on a fully taxable-equivalent basis. Management believes that tangible book value per common share and return on average tangible common shareholders' equity are useful additional measures to evaluate our performance and capital position without the impact of goodwill and other intangible assets and preferred stock. In addition, to facilitate relevant comparisons of net interest income from taxable and tax-exempt interest-earning assets, when calculating yields and net interest margin, we adjust interest income on tax-exempt securities and tax-advantaged loans so such amounts are fully equivalent to interest income on taxable sources. We believe that these non-GAAP financial measures, when taken together with the corresponding GAAP financial measures, provide meaningful supplemental information that is not otherwise required by GAAP or other applicable requirements. These non-GAAP financial measures should be considered in addition to, not as a substitute for, financial measures prepared in accordance with GAAP. A reconciliation of each non-GAAP financial measure to the most comparable GAAP financial measure is presented in relevant tables under "—Liquidity and Capital Resources—Return on Average Common Shareholders' Equity and Return on Average Tangible Common Shareholders' Equity," "—Liquidity and Capital Resources—Book Value per Common Share and Tangible Book Value per Common Share," and "Results of Operations—Years Ended December 31, 2022, 2021 and 2020—Net Interest Income and Net Interest Margin."

Selected Financial Data

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

($ in millions, except per share amounts)	As of or for the Year Ended December 31, 2022	2021	2020
Selected Financial Data:			
Interest income	$ 5,722	$ 4,385	$ 3,853
Interest expense	888	271	591
Net interest income	4,834	4,114	3,262
Provision for credit losses	107	59	157
Net interest income after provision for credit losses	4,727	4,055	3,105
Noninterest income	1,031	920	655
Noninterest expense	3,617	3,147	2,426
Net income	1,665	1,478	1,064
Dividends on preferred stock	158	99	59
Net income available to common shareholders	$ 1,507	$ 1,379	$ 1,005
Selected Ratios:			
Basic EPS	$ 8.32	$ 7.78	$ 5.85
Diluted EPS	$ 8.25	$ 7.68	$ 5.81
Return on average assets [1]	0.85%	0.89%	0.82%
Return on average common shareholders' equity [2]	11.60%	12.24%	10.59%
Return on average tangible common shareholders' equity [3]	11.80%	12.49%	10.86%
Average equity to average assets	8.50%	8.28%	8.31%
Dividends per common share	$ 1.03	$ 0.86	$ 0.79
Dividend payout ratio	12.5%	11.2%	13.6%
Book value per common share	$ 75.38	$ 68.34	$ 58.61
Tangible book value per common share [4]	$ 74.19	$ 67.10	$ 57.30
Net interest margin	2.65%	2.67%	2.72%
Efficiency ratio [5]	61.7%	62.5%	61.9%
Selected Asset Quality Ratios:			
Nonperforming assets to total assets	0.05%	0.08%	0.13%
Allowance for loan credit losses to total loans	0.47%	0.51%	0.56%
Allowance for loan credit losses to nonaccrual loans	720%	500%	345%
Net loan charge-offs to average total loans	0.00%	0.00%	0.00%
Capital Ratios:			
Tier 1 leverage ratio	8.51%	8.76%	8.14%
CET1 ratio	9.17%	9.65%	9.67%
Tier 1 risk-based capital ratio	11.56%	12.56%	11.18%
Total risk-based capital ratio	12.60%	13.72%	12.55%

[1] Return on average assets is the ratio of net income to average assets.
[2] Return on average common shareholders' equity is the ratio of net income available to common shareholders to average common shareholders' equity.
[3] Refer to table in "—Liquidity and Capital Resources—Return on Average Common Shareholders' Equity and Return on Average Tangible Common Shareholders' Equity" for a reconciliation of this non-GAAP financial measure to the most comparable GAAP measure.
[4] Refer to table in "—Liquidity and Capital Resources—Book Value per Common Share and Tangible Book Value per Common Share" for a reconciliation of this non-GAAP financial measure to the most comparable GAAP measure.
[5] Efficiency ratio is the ratio of noninterest expense to the sum of net interest income and noninterest income.

Critical Accounting Policies and 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 disclosures. On an ongoing basis, we evaluate our estimates, including those related to ACL on loans. 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 significant accounting policy below to be a critical accounting policy and estimate 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

The Bank estimates its ACL using quantitative models, expert judgment, qualitative factors and individual assessments to determine the 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. 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."

Estimated loss amounts determined by the Bank's quantitative models 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 residential real estate, income property, and tax-exempt business loans, expected credit losses are determined by PD/LGD models. For other business, other secured and certain unsecured loans, expected credit losses are determined by loss rate models. The Bank's ACL measured using these quantitative models is sensitive to various factors, but the most impactful are the residential home price indices, commercial real estate price indices, apartment price indices, unemployment rates, and interest rates.

The ACL determined by the quantitative models and associated qualitative reserve represents the largest portion of the Bank's total ACL on loans. To illustrate the impact of changes in these key variables to the Bank's ACL, the Bank performed a hypothetical sensitivity analysis that forecasted pessimistic trends in these variables over the two-year reasonable and supportable period. The following table presents the key variables used in estimating the Bank's ACL on loans for the period ended December 31, 2022 and the more pessimistic forecasted variables in the hypothetical sensitivity analysis.

	December 31, 2022 ACL Macroeconomic Forecast		**Hypothetical Pessimistic Macroeconomic Forecast**	
Key ACL variables	**Year 1**	**Year 2**	**Year 1**	**Year 2**
Home price index growth (decline)	(1.5)%	0.5%	(14.1)%	2.2%
Commercial real estate price index growth (decline)	(0.7)%	2.1%	(15.8)%	(3.8)%
Apartment price index growth (decline)	5.5%	0.3%	(2.4)%	6.8%
Unemployment rate	4.3%	4.1%	7.7%	6.6%
3-year CMT	3.77%	3.31%	3.28%	2.54%

The impact of this hypothetical pessimistic forecast would result in a net increase of $66 million, or approximately 8%, in the Bank's total ACL on loans as of December 31, 2022, primarily driven by a $99 million increase in ACL from the quantitative models, partially offset by a $33 million decrease in the qualitative reserve.

The hypothetical analysis is intended to illustrate the impact of adverse changes in the macroeconomic environment and is not intended to reflect the full nature and extent of potential future change in the ACL or even what the ACL would be under these adverse economic circumstances. It is difficult to estimate how potential changes in any one of the quantitative inputs or qualitative factors might affect the overall ACL and the Bank's current assessments may not reflect the potential future impact of changes to those inputs or factors.

Current Accounting Developments

The following ASUs have been issued by the FASB, but were not yet effective as of December 31, 2022:

ASU 2022-02—Financial Instruments—Credit Losses (ASC 326): Troubled Debt Restructurings and Vintage Disclosures

The amendments eliminate the accounting guidance on TDRs for entities that have adopted CECL and require enhanced disclosures about certain loan modifications made to borrowers experiencing financial difficulty.

Under the amendments, entities should apply the existing accounting guidance for loan refinancing and restructuring to determine whether a modification results in a new loan or a continuation of an existing loan, rather than applying the accounting guidance for TDRs. For modifications in the form of interest rate reductions, principal forgiveness, other-than-insignificant payment delays or term extensions made to borrowers experiencing financial difficulty, enhanced disclosures include information about the type and magnitude of modifications and the degree of their success in mitigating potential credit losses in the 12-months following the modification.

Additionally, the amendments require entities to present current-period gross write-offs by year of origination in their vintage disclosures.

The Bank adopted this guidance effective January 1, 2023.

The amendments related to TDRs were adopted using a modified retrospective approach with a de minimis adjustment to its consolidated balance sheet effective January 1, 2023.

The amendments requiring enhanced disclosures about certain loan modifications made to borrowers experiencing financial difficulty and current-period gross write-offs by year of origination were adopted prospectively. These disclosures will be included in the notes to the consolidated financial statements beginning in the first quarter of 2023.

Key Factors Affecting Our Business and Financial Statements

Business Environment

During 2022, macroeconomic conditions, including ongoing volatility in the capital markets, prolonged yield curve inversion, continued significant and rapid increases in interest rates and ongoing inflationary pressures, strong competition for deposits, along with geopolitical concerns, such as the war in Ukraine, created uncertainty and volatility in the global economy and in our market areas. In response to these pressures, the Federal Reserve increased interest rates during 2022 at a faster pace than any time in recent history. In 2022, interest rates for mortgage loans reached their highest point in over a decade. As a result of these interest rate increases, we experienced migration of deposits to higher yielding products and asset classes.

The economic outlook remains uncertain, reflecting concerns about inflation, further interest rate increases, continued inverted yield curve, supply chain disruptions, geopolitical conflict,

potential recession and COVID-19 developments. We continue to closely monitor economic conditions, and the potential impacts of substantially higher future interest rates, prolonged yield curve inversion and other economic conditions on our cost of funding, our ACL, and on demand for our products and services. A prolonged period of high or increasing interest rates may cause us to experience an acceleration of deposit migration, which could adversely affect our liquidity and result in further compression of net interest margin.

We expect the macroeconomic conditions to continue to remain challenging, which could affect our business, including, among other things, by impacting inflation, the magnitude and pace of interest rate increases, the demand for our products and services, and changes in regulation. Any of these factors, among others, could have adverse impacts on our operations and profitability in future periods.

See Part I, "Item 1A. Risk Factors" for additional discussion of risks we face in our business.

Interest Rates

Net interest income is our largest source of income and is the difference between the interest income on interest-earning assets, such as loans and investment securities, and the interest expense incurred on interest-bearing liabilities, such as deposits and borrowings. The level of net interest income is driven by the volume, pricing and mix of interest-earning assets and interest-bearing liabilities which, in turn, is impacted by external factors such as local economic conditions, competition for loans and deposits, the monetary policy of the FOMC, market liquidity and interest rates, or other factors.

The rates paid on our interest-bearing 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 influenced 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 magnitude or pace at which such movements occur. Changes in the yield curve, or prolonged periods of flat or inverted yield curve, could have an adverse impact on our net interest margin, net interest income, or both. The FOMC's actions have meaningfully influenced the interest-rate environment, which continues to impact our net interest margin.

For additional information, see Part I, "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—Interest Rate Risk Management" in this Form 10-K.

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 continue to evolve as the legal and regulatory framework changes and as our business grows. As described under Part I, "Item 1. Business—Supervision and Regulation—Capital Requirements," we are subject to regulatory requirements specifying minimum amounts and types of capital that we must maintain. In addition, although we are not yet subject to the LCR or NSFR, we nevertheless

maintain on-balance sheet liquidity and a portfolio of HQLA. It is possible that, as a result of continued growth of the Bank, we will become subject to more stringent capital and liquidity requirements. If we continue to grow and if we report $250 billion or more in total consolidated assets or $75 billion or more in weighted short-term wholesale funding, nonbank assets or off-balance sheet exposure, based on a trailing four-quarter average, we will be a Category III banking organization under the FDIC's regulations and subject to enhanced capital and liquidity requirements under the Basel III Capital Rules and the LCR and NSFR rules. As a result of becoming subject to the LCR and NSFR rules, we would be required to increase our holdings of HQLA and/or change the composition of our funding, which could adversely affect our net interest income and net interest margin. Further, if we become a Category III banking organization, we will be subject to heightened capital requirements, including the SLR and CCyB, in addition to the capital conservation buffer.

As described in under Part I, "Item 1. Business—Supervision and Regulation—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. In October 2022, the FDIC approved a final rule applicable to all insured depository institutions to increase initial base deposit insurance assessment rate schedules uniformly by 2 bps, beginning in the first quarterly assessment period of 2023. The new assessment rate schedules will remain in effect unless and until the reserve ratio of the DIF meets or exceeds 2% in order to support growth in the DIF. Progressively lower assessment rate schedules will take effect when the reserve ratio reaches 2%, and again when it reaches 2.5%. The increase in the deposit insurance assessment rate will result in an increase in the Bank's FDIC assessment expense beginning in the first quarter of 2023.

In addition to these regulatory and supervisory matters, our results of operations may be affected by other legislative developments or reforms, including the potential impact of recent tax legislation, and additional disclosure, risk management or other requirements implemented by our regulators or other governmental authorities. The adoption, details and timing of any such changes are uncertain, and the impact of any changes or developments cannot be predicted.

Financial Highlights

Assets

- Our total assets were $212.6 billion at December 31, 2022 and $181.1 billion at December 31, 2021, a 17% increase. Asset growth was driven primarily by growth in loans and investments, partially offset by a decrease in cash.

Investments

- At December 31, 2022, total investment securities were $31.7 billion, a 23% increase compared to $25.7 billion at December 31, 2021. Total investment securities represented 15% of total assets at December 31, 2022, compared to 14% of total assets at December 31, 2021. The increase in investment securities was primarily due to purchases of agency commercial MBS and municipal securities, partially offset by paydowns and calls. For additional discussion regarding our investment portfolio, see "—Balance Sheet Analysis—Investments."
- Our holdings of assets that are considered HQLA, including eligible cash, totaled $26.0 billion at December 31, 2022, compared to $30.4 billion at December 31, 2021. At December 31, 2022, HQLA represented 13% of average total assets for the fourth quarter of 2022.

Loans

- At December 31, 2022, loans were $166.9 billion, an increase of 24% compared to $135.0 billion at December 31, 2021. Loans increased as a result of growth primarily in single family, multifamily, commercial real estate, stock secured and other business loans, partially offset by a decrease in capital call lines of credit. For additional discussion regarding our loan portfolio, see "—Balance Sheet Analysis—Loan Portfolio."
- Average loan balances in 2022 were $150.2 billion, an increase of 22% compared to $123.1 billion in 2021.
- Our single family mortgage loans, including HELOCs, were $101.5 billion and represented 61% of total loans at December 31, 2022, compared to $79.4 billion, or 59% of total loans at December 31, 2021.
- Loan origination volume was $73.4 billion in 2022, compared to $64.8 billion in 2021 and $52.7 billion in 2020, an increase of 13% in 2022 and an increase of 23% in 2021. Loan originations increased in 2022 primarily due to increases in single family, multifamily and commercial real estate lending.

Deposits and Funding

- Total deposits were $176.4 billion at December 31, 2022, an increase of 13% compared to $156.3 billion at December 31, 2021. Deposits were our primary source of funding and represented 92% of our funding base at December 31, 2022, compared to 97% at December 31, 2021. Deposits increased as a result of referrals from existing clients, new deposit clients, and usage of other deposit funding channels. We continue to emphasize building banking relationships through checking and other transaction deposit accounts. See "—Balance Sheet Analysis—Deposit Gathering" for additional information.
- Average deposit balances were $164.8 billion in 2022, an increase of 18% compared to $139.2 billion in 2021.
- The following table presents percentages of our deposit base, which consist of checking deposits, other liquid deposits including money market checking and money market savings and passbooks, and CDs. As of December 31, 2022, the percentage of checking deposits declined from a year ago, while other liquid deposits and CDs increased from a year ago. The changes in deposit mix were the result of rising interest rates.

Checking, Other Liquid Deposits and CDs as a % of Total	December 31, 2022	December 31, 2021
Checking	59%	72%
Other liquid deposits	27	23
CDs	14	5
Total	100%	100%

- Total deposits had an average rate paid of 0.40% in 2022, compared to 0.07% in 2021. The increase in average rate reflects the shift in our deposit mix to higher yielding products. In the fourth quarter of 2022, average CD balances increased 114% from the prior quarter and increased 40% in 2022. In the fourth quarter of 2022, average total checking deposit balances decreased 8% from the prior quarter and increased 18% in 2022. The average interest rate paid on CDs was 2.69% for the fourth quarter of 2022, compared to 1.26% for the third quarter of 2022. The average interest rate paid on total checking deposits was 0.20% for the fourth quarter of 2022, compared to 0.09% for the third quarter of 2022. We expect this trend to continue while interest rates remain high or increase further.

- The following table presents percentages of our business and consumer deposits:

Business and Consumer Deposits as a % of Total Deposits	December 31, 2022	December 31, 2021
Business deposits	63%	60%
Consumer deposits	37	40
Total	100%	100%

- Other sources of funding at December 31, 2022 included short-term FHLB advances of $6.7 billion and long-term FHLB advances of $7.3 billion, compared to long-term FHLB advances of $3.7 billion at December 31, 2021. See "—Balance Sheet Analysis—Borrowings" for additional information.
- Average total funding costs (total deposits and borrowings) were 0.51% in 2022, compared to 0.18% in 2021.

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

- Our Tier 1 leverage ratio at December 31, 2022 was 8.51%. Our capital ratios exceeded all applicable regulatory requirements at December 31, 2022 for well-capitalized institutions. See "— Liquidity and Capital Resources—Regulatory Capital Components and Ratios" for further discussion of capital ratios and our capital requirements.
- Book value per common share was $75.38 at December 31, 2022, a 10% increase from December 31, 2021.
- Tangible book value per common share was $74.19 at December 31, 2022, an 11% increase from December 31, 2021.

Capital Markets Activity

- In August 2022, we sold 2,587,500 shares of common stock in an underwritten public offering. Net proceeds, after underwriting discounts and expenses, were $402 million.
- In February 2023, we sold 2,875,000 shares of common stock in an underwritten public offering. Net proceeds, after underwriting discounts and estimated expenses, were $397 million.

Dividends

- Cash dividends paid in 2022 were $1.03 per share of common stock, compared to $0.86 in 2021 and $0.79 in 2020.
- On January 13, 2023, we declared a cash dividend for the fourth quarter of 2022 of $0.27 per share, which was paid on February 9, 2023 to shareholders of record as of January 26, 2023. Any future payment of dividends will be subject to ongoing regulatory oversight and Board approval.

Wealth Management Assets

- Wealth management AUM and AUA decreased 3% to $271.2 billion at December 31, 2022, from $279.4 billion at December 31, 2021. The decrease in AUM and AUA was driven by market decline, partially offset by net client inflow. See "—Business Segments" for additional information.

Effective Tax Rate

- The Bank's effective tax rate for 2022, 2021 and 2020 was 22.2%, 19.1% and 20.2%, respectively. See "—Results of Operations—Years Ended December 31, 2022, 2021 and 2020—Provision for Income Taxes" for additional information.

Results of Operations—Years Ended December 31, 2022, 2021 and 2020

Overview

Net income was $1.7 billion in 2022, compared to $1.5 billion in 2021 and $1.1 billion in 2020, an increase of 13% in 2022 and an increase of 39% in 2021. The increase in 2022 was primarily due to higher net interest income and higher noninterest income, partially offset by higher noninterest expense and higher provision for income taxes. Diluted EPS were $8.25 in 2022, compared to $7.68 in 2021 and $5.81 in 2020, an increase of 7% in 2022 and an increase of 32% in 2021.

Net income for the Commercial Banking segment was $1.4 billion in 2022, compared to $1.3 billion in 2021 and $1.0 billion in 2020, an increase of 8% in 2022 and an increase of 33% in 2021. The Wealth Management segment's net income was $292 million in 2022, compared to $202 million in 2021 and $103 million in 2020, an increase of 45% in 2022 and an increase of 96% in 2021. For a discussion of segment results, see "—Business Segments."

Net Interest Income and Net Interest Margin

Net interest income was $4.8 billion in 2022, compared to $4.1 billion in 2021 and $3.3 billion in 2020, an increase of 17% in 2022 and an increase of 26% in 2021.

Net interest margin represents net interest income on a fully taxable-equivalent basis divided by total average interest-earning assets. Net interest margin was 2.65% in 2022, compared to 2.67% in 2021 and 2.72% in 2020. The decrease in 2022 was primarily due to average funding costs increasing more rapidly than the offsetting increases in the average yields on interest-earning assets. We expect this trend to continue while interest rates remain high or increase further.

On an average basis, interest-earning assets and interest-bearing liabilities increased 18% and 17% in 2022, respectively, and increased 28% and 13% in 2021, respectively. Average noninterest-bearing checking deposit balances, a significant source of our funding, increased 18% in 2022 and increased 58% in 2021.

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. Nonaccrual loans are included in the average balances of loans and in the calculation of average loan yields.

	Year Ended December 31,								
	2022			2021			2020		
($ in millions)	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:									
Interest-bearing deposits with banks	$ 6,095	$ 67	1.10%	$ 12,876	$ 17	0.13%	$ 4,018	$ 8	0.19%
Investment securities:									
U.S. Government-sponsored agency securities	153	3	1.92%	98	2	1.56%	193	5	2.56%
Agency residential and commercial MBS	10,251	220	2.14%	6,125	117	1.91%	6,348	160	2.51%
Other residential and commercial MBS	21	0	2.72%	29	1	2.00%	26	1	2.29%
Tax-exempt municipal securities	16,855	653	3.87%	13,704	549	4.01%	11,329	486	4.29%
Taxable municipal securities	1,759	54	3.09%	1,510	45	2.98%	738	25	3.32%
Other investment securities	1,434	41	2.87%	1,157	32	2.80%	52	1	2.77%
Total investment securities	30,473	971	3.19%	22,623	746	3.30%	18,686	678	3.62%
Loans:									
Residential real estate	92,061	2,660	2.89%	72,679	2,048	2.82%	56,628	1,703	3.01%
Multifamily	18,453	656	3.50%	14,735	539	3.61%	13,093	489	3.68%
Commercial real estate	9,399	368	3.86%	8,260	321	3.83%	7,752	313	3.97%
Multifamily/commercial construction	2,026	103	5.03%	2,067	105	4.99%	1,935	95	4.82%
Business	18,366	750	4.03%	16,033	520	3.20%	12,846	465	3.56%
PPP	147	11	7.65%	1,418	51	3.58%	1,432	33	2.26%
Other	9,785	283	2.85%	7,938	169	2.10%	6,842	173	2.48%
Total loans	150,237	4,831	3.20%	123,130	3,753	3.03%	100,528	3,271	3.23%
FHLB stock	260	13	5.13%	266	19	7.14%	442	24	5.40%
Total interest-earning assets	187,065	5,882	3.13%	158,895	4,535	2.84%	123,674	3,981	3.20%
Noninterest-earning assets:									
Noninterest-earning cash	455			404			439		
Goodwill and other intangibles	220			225			231		
Other assets	7,895			6,671			5,104		
Total noninterest-earning assets	8,570			7,300			5,774		
Total Assets	$195,635			$166,195			$129,448		
Liabilities and Shareholders' Equity:									
Deposits:									
Interest-bearing checking	$ 40,732	88	0.21%	$ 33,977	6	0.02%	$ 24,143	16	0.07%
Money market checking	22,114	217	0.98%	20,662	25	0.12%	14,848	56	0.38%
Money market savings and passbooks	18,668	165	0.89%	15,308	25	0.17%	10,659	32	0.30%
CDs	11,119	184	1.66%	7,926	39	0.49%	11,754	172	1.46%
Total interest-bearing deposits [2]	92,633	654	0.71%	77,873	95	0.12%	61,404	276	0.45%
Borrowings:									
Federal funds purchased	245	7	2.74%	0	0	0.09%	83	1	1.37%
Short-term FHLB advances	4,193	108	2.58%	0	0	0.15%	228	4	1.57%
Long-term FHLB advances	4,785	67	1.39%	8,609	115	1.34%	14,330	250	1.74%
Senior notes	670	16	2.32%	997	24	2.42%	938	23	2.44%
Subordinated notes	779	36	4.68%	779	37	4.68%	778	37	4.68%
Total borrowings	10,672	234	2.19%	10,385	176	1.70%	16,357	315	1.92%
Total interest-bearing liabilities [3]	103,305	888	0.86%	88,258	271	0.31%	77,761	591	0.76%
Noninterest-bearing checking	72,135			61,325			38,796		
Other noninterest-bearing liabilities	3,566			2,847			2,131		
Total noninterest-bearing liabilities	75,701			64,172			40,927		
Preferred shareholders' equity	3,633			2,502			1,268		
Common shareholders' equity	12,996			11,263			9,492		
Total Liabilities and Shareholders' Equity	$195,635			$166,195			$129,448		
Net interest spread [4]			2.27%			2.53%			2.44%
Net interest income (fully taxable-equivalent basis) and net interest margin [5]		$ 4,994	2.65%		$ 4,264	2.67%		$ 3,390	2.72%
Reconciliation of tax-equivalent net interest income to reported net interest income: [6]									
Municipal securities tax-equivalent adjustment		(132)			(122)			(101)	
Business loans tax-equivalent adjustment		(28)			(28)			(27)	
Net interest income, as reported		$ 4,834			$ 4,114			$ 3,262	
Supplemental information:									
Total deposits (interest-bearing and noninterest-bearing)	$164,768	$ 654	0.40%	$139,198	$ 95	0.07%	$100,200	$ 276	0.28%
Total deposits (interest-bearing and noninterest-bearing) and borrowings	$175,440	$ 888	0.51%	$149,583	$ 271	0.18%	$116,557	$ 591	0.51%

(continued on following page)

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

(1) Interest income on tax-exempt securities and loans has been adjusted to the fully taxable-equivalent basis using the statutory federal income tax rate in effect for each respective period presented.

(2) Refer to supplemental information in this table for average balances, interest expense and rates for total deposits (interest-bearing and noninterest-bearing).

(3) Refer to supplemental information in this table for average balances, interest expense and rates for total deposits (interest-bearing and noninterest-bearing) and borrowings.

(4) Net interest spread represents the average yield on interest-earning assets less the average rate on interest-bearing liabilities.

(5) Net interest margin represents net interest income on a fully taxable-equivalent basis divided by total average interest-earning assets.

(6) Fully taxable-equivalent net interest income is considered a non-GAAP financial measure, and is reconciled to GAAP net interest income in this table.

Interest Income

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

($ in millions)	Year Ended December 31,			% Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Interest income:					
Loans	$4,803	$3,725	$3,245	29%	15%
Investments	839	624	576	34%	8%
Cash and cash equivalents	67	17	8	293%	126%
Other [1]	13	19	24	(30)%	(21)%
Total interest income	$5,722	$4,385	$3,853	30%	14%
Fully taxable-equivalent interest income: [2]					
Loans	$4,831	$3,753	$3,271	29%	15%
Investments	$ 971	$ 746	$ 678	30%	10%

(1) Represents dividends on FHLB stock.

(2) Refer to the table in "—Net Interest Income and Net Interest Margin—Yields/Rates (Fully Taxable-Equivalent Basis)" for a reconciliation of the fully taxable-equivalent net interest income non-GAAP financial measure to the most comparable GAAP measure.

Total interest income consists of interest income on loans and investments, interest income on cash and cash equivalents, and FHLB stock dividends. The increase in interest income in 2022 was the result of an increase of 18% in average interest-earning assets, which were $187.1 billion, compared to $158.9 billion in 2021, and an increase in the average yield on interest-earning assets to 3.13% from 2.84% in 2021.

Loans

Interest income on loans increased in 2022 due to continued loan growth and an increase in the average yield as a result of increases in interest rates. Average loan balances increased 22% in both 2022 and 2021. The average yield on loans was 3.20% in 2022, compared to 3.03% in 2021 and 3.23% in 2020. The average yield on loans varies based on the volume, mix and pricing of the loan portfolio.

Interest income on loans included prepayment penalty fees of $20 million, $29 million and $19 million in 2022, 2021 and 2020, respectively. The decrease in 2022 was primarily due to lower prepayments on multifamily and single family 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 3.70% at December 31, 2022, compared to 2.97% at December 31, 2021. 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, 2022, 21% of our total loans were adjustable-rate or mature within one year, compared to 26% at December 31, 2021.

Investments

Interest income on investments increased in 2022 primarily due to higher average investment balances, partially offset by a decrease in the average yield. Average investment balances increased 35% in 2022 and increased 21% in 2021. The increase in 2022 was primarily due to investment purchases, partially offset by paydowns and calls. The average yield on investment securities was 3.19% in 2022, compared to 3.30% in 2021 and 3.62% in 2020. The yield decline in 2022 was primarily due to purchases of lower yielding tax-exempt municipal securities, the timing of such purchases, as well as the increase in the cost of funds in 2022, which reduces the average yield on municipal securities.

Interest Expense

The following table presents interest expense:

	Year Ended December 31,			% Change	
($ in millions)	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Interest expense:					
Deposits:					
Interest-bearing checking	$ 88	$ 6	$ 16	NM	(63)%
Money market checking	217	25	56	772%	(55)%
Money market savings and passbooks	165	25	32	555%	(22)%
CDs	184	39	172	377%	(78)%
Total interest expense on deposits	654	95	276	590%	(66)%
Borrowings:					
Federal funds purchased	7	—	1	NM	NM
Short-term FHLB advances	108	—	4	NM	NM
Long-term FHLB advances	67	115	250	(42)%	(54)%
Senior notes	16	24	23	(36)%	6%
Subordinated notes	36	37	37	0%	0%
Total interest expense on borrowings	234	176	315	33%	(44)%
Total interest expense	$ 888	$ 271	$ 591	228%	(54)%

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

Total interest expense consists of interest expense on deposits and borrowings. The increase in interest expense in 2022 was the result of an increase in the average cost of interest-bearing liabilities to 0.86% in 2022 from 0.31% in 2021 and an increase of 17% in average interest-bearing liabilities.

Deposits

Interest expense on deposits increased in 2022 due to increases in both average rates paid and average balances. The average interest rate paid on deposits was 0.71% for 2022, 0.12% for 2021 and 0.45% for 2020. The average interest rates paid on deposits were impacted by the level of the federal funds rate, which averaged 1.88% for 2022, compared to 0.25% for 2021 and 0.54% for 2020. The federal funds rate was 4.50% and 0.25% as of December 31, 2022 and 2021, respectively.

Interest-bearing checking. Interest expense on checking deposits increased in 2022 due to increases in both average rates paid and average balances. The average interest rate paid on interest-bearing checking deposits was 0.21% for 2022, compared to 0.02% for 2021 and 0.07% for 2020. Average interest-bearing checking deposit balances increased 20% in 2022 and increased 41% in 2021.

Total checking (interest-bearing and non-interest bearing). Interest expense on total checking deposits increased in 2022 due to increases in both average rates paid and average balances. The average interest rate paid on total checking deposits was 0.08% for 2022, compared to 0.01% for 2021 and 0.03% for 2020. Average total checking deposit balances increased 18% in 2022 and increased 51% in 2021.

Money market checking. Interest expense on money market checking deposits increased in 2022 due to increases in both average rates paid and average balances. The average interest rate paid on money market checking deposits was 0.98% for 2022, compared to 0.12% for 2021 and 0.38% for 2020. Average money market checking deposit balances increased 7% in 2022 and increased 39% in 2021.

Money market savings and passbooks. Interest expense on money market savings and passbooks deposits increased in 2022 due to increases in both average rates paid and average balances. The average interest rate paid on money market savings and passbooks deposits was 0.89% for 2022, compared to 0.17% for 2021 and 0.30% for 2020. Average money market savings and passbooks deposit balances increased 22% in 2022 and increased 44% in 2021.

CDs. Interest expense on CDs increased in 2022 due to increases in both average rates paid and average balances. The average interest rate paid on CDs was 1.66% for 2022, compared to 0.49% for 2021 and 1.46% for 2020. Average CD balances increased 40% in 2022 and decreased 33% in 2021.

Average total deposit balances increased 18% in 2022 and increased 39% in 2021. The following table presents average deposit balances by deposit type as a percentage of average total deposits:

	Year Ended December 31,		
Average Deposits by Type as a % of Average Total Deposits	**2022**	**2021**	**2020**
Checking	69%	68%	63%
Money market checking	13%	15%	15%
Money market savings and passbooks	11%	11%	10%
CDs	7%	6%	12%

At December 31, 2022, our total deposits were $176.4 billion, compared to $156.3 billion at December 31, 2021, an increase of 13%, and the weighted average contractual rate paid on total deposits was 1.29% and 0.05% for 2022 and 2021, respectively. We will continue to focus on growth in our core deposit base to fund a significant percentage of our future asset growth. Refer to "—Financial Highlights—Deposits and Funding" for additional discussion of our deposit funding. In addition to deposits, we may 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 increased in 2022 primarily due to an increase in average short-term FHLB advances, partially offset by a decrease in average long-term FHLB advances.

Interest expense on short-term FHLB advances increased in 2022 due to higher average balances, which increased 100% in 2022 and decreased 100% in 2021. The average cost of short-term FHLB advances was 2.58%, 0.15% and 1.57% for 2022, 2021 and 2020, respectively.

Interest expense on long-term FHLB advances decreased in 2022 due to a decrease in the average balance, partially offset by an increase in the average cost of long-term FHLB advances. Average long-term FHLB advances decreased 44% in 2022 and decreased 40% in 2021. Average long-term FHLB advances as a proportion of total average interest-bearing liabilities were 5%, 10% and 18% in 2022, 2021 and 2020, respectively. The average cost of long-term FHLB advances was 1.39%, 1.34% and 1.74% for 2022, 2021 and 2020, respectively.

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 amounts have been adjusted to conform to the current period presentation.

	2022 vs. 2021			2021 vs. 2020		
($ in millions)	**Volume**	**Rate**	**Total**	**Volume**	**Rate**	**Total**
Increase (decrease) in interest income:						
Interest-bearing deposits with banks	$ (45)	$ 95	$ 50	$ 13	$ (4)	$ 9
Investment securities:						
U.S. Government-sponsored agency securities	1	0	1	(2)	(1)	(3)
Agency residential and commercial MBS	86	17	103	(5)	(38)	(43)
Other residential and commercial MBS	0	(1)	(1)	—	—	—
Tax-exempt municipal securities	123	(19)	104	97	(34)	63
Taxable municipal securities	7	2	9	23	(3)	20
Other investment securities	8	1	9	31	0	31
Loans:						
Residential real estate	559	53	612	459	(114)	345
Multifamily	132	(15)	117	59	(9)	50
Commercial real estate	45	2	47	19	(11)	8
Multifamily/commercial construction	(2)	0	(2)	7	3	10
Business	84	146	230	106	(51)	55
PPP	(95)	55	(40)	(1)	19	18
Other	45	69	114	25	(29)	(4)
FHLB stock	(1)	(5)	(6)	(12)	7	(5)
Total increase (decrease)	947	400	1,347	819	(265)	554
Increase (decrease) in interest expense:						
Deposits:						
Interest-bearing checking	4	78	82	6	(16)	(10)
Money market checking	3	189	192	20	(51)	(31)
Money market savings and passbooks	10	130	140	12	(19)	(7)
CDs	26	119	145	(49)	(84)	(133)
Federal funds purchased	4	3	7	0	(1)	(1)
Short-term FHLB advances	58	50	108	0	(4)	(4)
Long-term FHLB advances	(53)	5	(48)	(84)	(51)	(135)
Senior notes	(7)	(1)	(8)	1	0	1
Subordinated notes	(1)	0	(1)	—	—	—
Total increase (decrease)	44	573	617	(94)	(226)	(320)
Increase (decrease) in net interest income	$ 903	$(173)	$ 730	$ 913	$ (39)	$ 874

Provision (Reversal of Provision) for Credit Losses

The following table presents information related to the provision (reversal of provision) for credit losses:

($ in millions)	Year Ended December 31, 2022	2021	2020	% Change 2022 vs. 2021	2021 vs. 2020
Provision (reversal of provision) for credit losses:					
Debt securities held-to-maturity	$ 2	$ 2	$ 2	0%	0%
Loans	93	61	143	53%	(58)%
Unfunded loan commitments	12	(4)	12	NM	NM
Total	$ 107	$ 59	$ 157	81%	(62)%

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

The increase in the provision for credit losses in 2022 was primarily driven by loan growth and a change in economic conditions and outlook, partially offset by the decrease in ACL for capital call lines of credit due to the declines in balances and expected utilization. The macroeconomic forecasts, historical loss rates, and historical prepayment (or repayment) speeds 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 millions)	Year Ended December 31, 2022	2021	2020	% Change 2022 vs. 2021	2021 vs. 2020
Noninterest income:					
Investment management fees	$ 612	$554	$ 395	10%	40%
Brokerage and investment fees	118	74	51	59%	47%
Insurance fees	21	19	12	13%	62%
Trust fees	28	25	19	13%	27%
Foreign exchange fee income	98	88	50	11%	77%
Deposit fees	28	27	24	5%	13%
Loan and related fees	39	33	28	17%	20%
Income from investments in life insurance	82	85	53	(3)%	58%
Other income, net	5	15	23	(66)%	(34)%
Total noninterest income	$1,031	$920	$ 655	12%	41%

The increase in 2022 was primarily driven by higher investment management fees and higher brokerage and investment 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, revenue earned from selling life insurance and annuity policies and fees earned for assisting clients with 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 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. The increase in investment management fees in 2022 was primarily driven by growth in AUM. Investment management fees vary with the amount of assets managed and the type of services and investments chosen, which are impacted by market conditions. Generally, higher fees are earned for managing equity securities than for managing a fixed income portfolio. In addition, since our investment management fees are generally based on AUM levels as of the beginning of a quarterly period, the timing of fluctuation in AUM levels also impacts the level of fees. Changes in FRIM's AUM during 2022, 2021 and 2020 are presented in the following table:

	Year Ended December 31,		
($ in millions)	**2022**	**2021**	**2020**
FRIM AUM:			
Balance at beginning of period	$109,130	$ 83,596	$66,029
Net client flow	18,189	11,109	9,941
Market appreciation (decline)	(15,143)	14,425	7,626
Balance at end of period	$112,176	$109,130	$83,596

The future level of investment management fees depends on the level and mix of AUM, type of services and investments, market conditions and our ability to attract new clients.

Brokerage and investment fees. We perform brokerage and investment activities for clients through FRSC. We 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. The increase in brokerage and investment fees in 2022 was primarily due to higher fees from money market mutual funds as a result of rising interest rates. Changes in client assets in brokerage accounts through FRSC and in third-party money market mutual funds during 2022, 2021 and 2020 are presented in the following table:

	Year Ended December 31,		
($ in millions)	**2022**	**2021**	**2020**
Brokerage AUA:			
Balance at beginning of period	$128,258	$ 88,059	$68,807
Net client flow	22,495	22,615	9,395
Market appreciation (decline)	(19,909)	17,584	9,857
Balance at end of period	$130,844	$128,258	$88,059
Money market mutual funds AUA:			
Balance at beginning of period	$ 23,673	$ 9,003	$ 4,268
Net client flow	(15,573)	14,670	4,735
Balance at end of period	$ 8,100	$ 23,673	$ 9,003

Brokerage and investment fees are based on the volume and type of transaction activity, conditions in the securities markets, level of money market mutual fund balances and rates, and our ability to attract new clients, and will vary in the future based on these factors.

Insurance fees. We earn revenue from selling life insurance and annuity policies to our clients through FRSC and previously, also through FRIM. Insurance fees consist of initial commissions when a policy is sold and subsequent commissions each year that a policy is renewed. Such fees vary based on the level of sales of insurance and annuity products and our ability to attract new clients. There is no underwriting risk for the Bank 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 banking and wealth management client base, as well as from outside of our organization. Changes in AUA during 2022, 2021 and 2020 are presented in the following table:

	Year Ended December 31,		
($ in millions)	**2022**	**2021**	**2020**
Trust AUA:			
Balance at beginning of period	$13,695	$ 9,910	$ 7,121
Net client flow	2,463	2,280	2,002
Market appreciation	160	1,505	787
Balance at end of period	$16,318	$13,695	$ 9,910
Custody AUA:			
Balance at beginning of period	$ 4,687	$ 3,889	$ 4,818
Net client flow	65	147	(1,021)
Market appreciation (decline)	(946)	651	92
Balance at end of period	$ 3,806	$ 4,687	$ 3,889

Trust fees are primarily based on the level and mix of AUA 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. The increase in foreign exchange fee income in 2022 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

Loan and related fees. 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 and miscellaneous income 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.

Income from investments in life insurance. Income from investments in life insurance reflects the adjustments in carrying value of the underlying investments to their cash surrender value, including life insurance investments related to the Bank's Deferred Compensation Plan. In addition to purchases of additional investments, changes in cash surrender cash due to market appreciation or decline also impacts the level of income. 2022 included a decrease in the cash surrender value of $16 million for certain life insurance investments related to the Banks' Deferred Compensation Plan, compared to an increase in the cash surrender value of $5 million in 2021. The decrease in income in 2022 was offset by a corresponding decrease in the deferred compensation expense (included in salaries and employee benefits), and the increase in income in 2021 was offset by a corresponding increase in deferred compensation expense.

The book value of this portfolio of tax-exempt investments was $3.4 billion and $2.7 billion at December 31, 2022 and 2021, respectively. The increase was primarily due to additional purchases of investments in life insurance.

Other income, net. Other income, net includes net loan servicing fees, gain (loss) on investment securities, gain on sale of loans and other operating income. The following table presents the main components of net other income:

	Year Ended December 31,		
($ in millions)	**2022**	**2021**	**2020**
Other income, net:			
Loan servicing fees, net	$ 5	$ 4	$ (1)
Gain (loss) on investment securities	(6)	1	4
Gain on sale of loans	—	1	17
Other operating income	6	9	3
Total other income, net	$ 5	$ 15	$ 23

Noninterest Expense

The following table presents noninterest expense:

	Year Ended December 31,			% Change	
($ in millions)	**2022**	**2021**	**2020**	**2022 vs. 2021**	**2021 vs. 2020**
Noninterest expense:					
Salaries and employee benefits	$2,235	$2,003	$1,495	12%	34%
Information systems	468	362	299	29%	21%
Occupancy	285	254	221	12%	15%
Professional fees	108	101	66	7%	51%
Advertising and marketing	71	64	43	10%	49%
FDIC assessments	66	52	44	27%	18%
Other expenses	384	311	258	23%	21%
Total noninterest expense	$3,617	$3,147	$2,426	15%	30%

The increase in noninterest expense in 2022 was primarily due to continued investments in our business expansion, including hiring additional colleagues to support our growth, information systems initiatives and occupancy costs.

Noninterest expense was reduced by certain general and administrative costs that have been capitalized, which primarily were compensation costs directly related to loan originations. We capitalized loan origination costs of $342 million in 2022, compared to $302 million in 2021 and $239 million in 2020. 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 (within loans) 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 61.7% in 2022, compared to 62.5% in 2021 and 61.9% in 2020.

Salaries and employee benefits. Salaries and employee benefits is the largest component of noninterest expense and includes the cost of salaries, incentive compensation, share-based 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. The increase in salaries and employee benefit expenses in 2022 was attributed to the continued expansion of the franchise resulting in the addition of new personnel to support higher levels of lending, deposit growth and expansion of wealth management; and higher incentive compensation, which also varies based on our business activity. This increase was partially offset by a decrease in deferred compensation expense. At December 31, 2022, we had 7,213 full-time equivalent employees, including temporary employees and independent contractors, compared to 6,295 full-time equivalent employees at December 31, 2021, a 15% 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. The increase in information systems expenses in 2022 was primarily due to continued technology initiatives to upgrade our systems, enhance the client experience and support our growth, as well as increased expenses related to our new core banking system.

Occupancy. Occupancy costs increased in 2022 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. The increase in professional fees in 2022 was primarily due to an increase in consulting services supporting various technology initiatives.

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 vary based on the number of marketing initiatives, level of advertising costs and costs associated with holding client events to support our growth. The increase in 2022 was primarily due to an increase in costs associated with holding client events to support our growth and advertising costs, partially offset by decreases in deposit-related promotions.

FDIC assessments. FDIC assessments increased in 2022 primarily due to growth in the assessment base as a result of the growth in average total assets and an increase in the assessment rate.

Other expenses. Other expenses include costs related to lending and deposit activities, client service, hiring, training, insurance, charitable contributions, prepayment penalties on FHLB advances and other costs related to expanding operations. The increases in travel and entertainment and recruiting costs in 2022 was the result of increased activity, including as a result of the lessening of COVID-19 related restrictions, compared to 2021. Other operating expenses include employee event costs, postage, cash management, and other miscellaneous expenses, as well as amortization of intangibles. The following table presents the main components of other expenses:

($ in millions)	Year Ended December 31, 2022	2021	2020
Other expenses:			
Deposit client related costs	$ 65	$ 47	$ 40
Travel and entertainment	39	18	11
Recruiting	31	17	9
Custody and clearing fees	27	17	18
Loan related costs	25	25	21
Subscriptions	22	19	19
Training	19	15	5
Insurance	16	16	13
Charitable contributions	16	14	12
Prepayment penalties on FHLB advances	—	32	27
Other operating expenses	124	91	83
Total other expenses	$384	$311	$258

Included in insurance expense are costs related to a parametric earthquake insurance policy (the "Policy"). Pursuant to this Policy, if we incur a loss the insurer is required to pay us up to: (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 with a depth of 60 miles or less 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 with a depth of 60 miles or less and has an epicenter within an 85-mile radius of 1888 Century Park East, Los Angeles, California (our Los Angeles office). The Policy's term is scheduled to end on December 30, 2023.

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 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 2022 was primarily the result of higher research and development tax credits claimed in the prior year and lower excess tax benefits recognized in the current year.

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

Effective Tax Rate	Year Ended December 31, 2022	2021	2020
Effective tax rate, prior to excess tax benefits—stock awards and other adjustments	22.9%	22.3%	21.5%
Excess tax benefits—stock awards	(0.5)	(2.1)	(1.3)
Research and development tax credit adjustments	(0.2)	(1.1)	—
Effective tax rate	22.2%	19.1%	20.2%

The number of stock options exercised or stock awards vested impact the amount of excess tax benefits recorded as a reduction in provision for income taxes. See Note 18 in "Item 8. Financial Statements and Supplementary Data" for additional information regarding excess tax benefits recognized for stock options and other stock awards.

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 from investments in life insurance. 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 previously, also through 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 in "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 millions)	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Net interest income	$4,452	$3,921	$3,141	14%	25%
Provision for credit losses	107	59	157	81%	(62)%
Noninterest income	150	154	124	(2)%	24%
Noninterest expense	2,763	2,469	1,916	12%	29%
Income before provision for income taxes	1,732	1,547	1,192	12%	30%
Provision for income taxes	359	271	231	32%	17%
Net income	$1,373	$1,276	$ 961	8%	33%

Net interest income for Commercial Banking increased in 2022 primarily due to growth in average interest-earning assets, partially offset by a decrease in net interest margin.

The increase in the provision for credit losses in 2022 was primarily driven by loan growth and a change in economic conditions and outlook, partially offset by the decrease in ACL for capital call lines of credit due to the declines in balances and expected utilization. The macroeconomic forecasts, historical loss rates, and historical prepayment (or repayment) speeds 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 decreased in 2022 primarily due to lower income from investments in life insurance, which reflects a decrease in the cash surrender value from a market decline in certain life insurance investments.

Noninterest expense for Commercial Banking increased in 2022 primarily due to continued investments in our business expansion, including hiring additional colleagues to support our growth, information systems initiatives and occupancy costs.

Provision for income taxes for Commercial Banking increased in 2022 primarily due to an increase in pre-tax income, higher research and development tax credits claimed in the prior year and lower excess tax benefits recognized in the current year.

Wealth Management

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

($ in millions)	Year Ended December 31, 2022	2021	2020	% Change 2022 vs. 2021	2021 vs. 2020
Net interest income	$ 382	$ 193	$ 121	98%	59%
Noninterest income	896	813	571	10%	43%
Noninterest expense	869	725	550	20%	32%
Income before provision for income taxes	409	281	142	46%	98%
Provision for income taxes	117	79	39	49%	103%
Net income	$ 292	$ 202	$ 103	45%	96%

Net interest income for Wealth Management is earned from Wealth Management client deposits with the Bank, for which Wealth Management earns a deposit earnings credit and fees for Wealth Management sweep deposit accounts. The deposit earnings credit and fees vary based on the amounts, allocated credit rates, and type of Wealth Management client deposits. Net interest income increased in 2022 primarily as a result of growth in Wealth Management client deposits, including sweet deposit accounts, as well as a result of credit rate changes.

Wealth Management client deposits totaled $22.4 billion and $20.2 billion at December 31, 2022 and 2021, respectively, including sweep deposits. Wealth Management client deposits, including sweep accounts, averaged $21.5 billion, $18.5 billion and $11.8 billion in 2022, 2021 and 2020, 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 1.78% in 2022, compared to 1.04% in 2021 and 1.03% in 2020.

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 2.65% in 2022, 2.67% in 2021 and 2.72% in 2020. 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 $569 million in 2022, $493 million in 2021 and $322 million in 2020.

Noninterest income for Wealth Management increased in 2022 primarily due to increases in investment management fees due to growth in AUM, brokerage and investment fees primarily due to higher fees from money market mutual funds as a result of rising interest rates, and foreign exchange fee income primarily driven by higher transaction volume from both existing and new clients. For additional information, see "—Results of Operations—Years Ended December 31, 2022, 2021 and 2020—Noninterest income—Wealth Management Fees."

Noninterest expense for Wealth Management increased in 2022 primarily due to higher salaries and employee benefits, which reflect the overall growth in our business and the addition of new wealth managers, as well as the level of incentive compensation, which also varies based on our business activity.

Provision for income taxes for Wealth Management increased in 2022 primarily due to higher pre-tax income.

AUM and AUA, in aggregate, decreased 3% compared to December 31, 2021 due to market decline, meaningfully offset by net client inflow. 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 client assets served by different areas with multiple revenue streams, such assets are included in more than one type of Wealth Management asset category in the following table.

The following table presents the AUM and AUA by the entities comprising our Wealth Management segment:

($ in millions)	December 31, 2022	December 31, 2021
First Republic Investment Management	$112,176	$109,130
Brokerage and investment:		
Brokerage	130,844	128,258
Money market mutual funds	8,100	23,673
Total brokerage and investment	138,944	151,931
Trust Company:		
Trust	16,318	13,695
Custody	3,806	4,687
Total Trust Company	20,124	18,382
Total AUM and AUA	$271,244	$279,443

The following table presents changes in AUM and AUA for our Wealth Management segment. 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 (decline). For additional discussion of the changes in AUM and AUA for First Republic Investment Management, brokerage and investment, and the Trust Company for 2022, 2021 and 2020, refer to "—Results of Operations—Years Ended December 31, 2022, 2021 and 2020—Noninterest Income—Wealth Management Fees."

($ in millions)	Year Ended December 31, 2022	2021	2020
Beginning balance	$279,443	$194,457	$151,043
Net client flow	27,639	50,821	25,051
Market appreciation (decline)	(35,838)	34,165	18,363
Ending balance	$271,244	$279,443	$194,457

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

Investment Type	% of AUM December 31, 2022	% of AUM December 31, 2021
Equities	53%	61%
Fixed income	27	25
Cash and cash equivalents	11	5
Alternative investments	9	9
Total	100%	100%

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

	Year Ended December 31, 2022	2021	2020
First Republic Investment Management	0.58%	0.57%	0.56%
Brokerage and investment:			
Brokerage	0.07%	0.07%	0.06%
Money market mutual funds	0.25%	0.02%	0.13%
Total brokerage and investment	0.08%	0.06%	0.06%
Trust Company:			
Trust	0.16%	0.18%	0.19%
Custody	0.10%	0.09%	0.10%
Total Trust Company	0.15%	0.15%	0.16%
Total	0.29%	0.28%	0.29%

Balance Sheet Analysis

Investments

The following table presents the investment portfolio:

($ in millions)	December 31, 2022	December 31, 2021
Debt securities available-for-sale:		
Agency residential MBS	$ 2,160	$ 1,829
Other residential MBS	10	15
Agency commercial MBS	1,130	1,490
Securities of U.S. states and political subdivisions—taxable	47	47
Total	$ 3,347	$ 3,381
Debt securities held-to-maturity:		
U.S. Government-sponsored agency securities	$ 165	$ 100
Agency residential MBS	2,003	1,380
Other residential MBS	8	9
Agency commercial MBS	5,331	2,719
Securities of U.S. states and political subdivisions:		
Tax-exempt municipal securities	17,644	15,011
Tax-exempt nonprofit debentures	69	72
Taxable municipal securities	1,726	1,632
Corporate debt securities	1,413	1,378
Total	28,359	22,301
Less: Allowance for credit losses	(11)	(9)
Debt securities held-to-maturity, net	$28,348	$22,292
Equity securities (fair value):		
Mutual funds and marketable equity securities	$ 24	$ 28

The total combined investment securities portfolio (consisting of available-for-sale, held-to-maturity and equity securities, excluding any ACL) represented 15% and 14% of total assets at December 31, 2022 and 2021, respectively.

The weighted average duration of the available-for-sale portfolio was 4.4 and 3.9 years at December 31, 2022 and 2021, respectively. The weighted average duration of the held-to-maturity portfolio was 10.8 and 10.6 years at December 31, 2022 and 2021, respectively.

At December 31, 2022, 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 $39 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, 2022. 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. Interest income on tax-exempt securities has been adjusted to the fully taxable-equivalent basis using the statutory federal income tax rate.

			Contractual Principal—Remaining Maturity							
			Within 1 Year		After 1 Through 5 Years		After 5 Through 10 Years		After 10 Years	
($ in millions)	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield
Available-for-sale:										
Agency residential MBS	$ 2,160	2.27%	$ —	—%	$ 0	2.06%	$ —	—%	$ 2,160	2.27%
Other residential MBS	10	5.80%	—	—%	—	—%	—	—%	10	5.80%
Agency commercial MBS	1,130	4.07%	—	—%	30	4.71%	937	4.31%	163	2.68%
Securities of U.S. states and political subdivisions—taxable	47	5.78%	—	—%	—	—%	—	—%	47	5.78%
Total carrying value of available-for-sale debt securities	$ 3,347		$ —		$ 30		$ 937		$ 2,380	
Held-to-maturity:										
U.S. Government-sponsored agency securities	$ 165	2.05%	$ —	—%	$ 65	2.75%	$ 50	1.57%	$ 50	1.61%
Agency residential MBS	2,003	2.34%	—	—%	3	2.72%	—	—%	2,000	2.34%
Other residential MBS	8	2.61%	—	—%	—	—%	—	—%	8	2.61%
Agency commercial MBS	5,331	2.36%	—	—%	—	—%	—	—%	5,331	2.36%
Securities of U.S. states and political subdivisions:										
Tax-exempt municipal securities [(1)]	17,644	3.97%	340	5.95%	371	4.82%	116	5.81%	16,817	3.90%
Tax-exempt nonprofit debentures [(1)]	69	5.13%	—	—%	—	—%	—	—%	69	5.13%
Taxable municipal securities	1,726	3.06%	—	—%	—	—%	—	—%	1,726	3.06%
Corporate debt securities	1,413	2.89%	—	—%	—	—%	—	—%	1,413	2.89%
Total carrying value of held-to-maturity debt securities	$28,359		$ 340		$ 439		$ 166		$27,414	
Estimated fair value of held-to-maturity debt securities	$23,587		$ 345		$ 444		$ 167		$22,632	

(1) Weighted average yield on tax-exempt municipal securities and tax-exempt nonprofit debentures has been adjusted to the fully taxable-equivalent basis using the statutory federal income tax rate.

Allowance for Credit Losses on Debt Securities

As of December 31, 2022, no ACL was recognized on available-for-sale debt securities.

As of December 31, 2022, the ACL on held-to-maturity debt securities totaled $11 million and consisted primarily of the ACL on securities of U.S. states and political subdivisions (including tax-exempt municipal securities and taxable municipal securities) and corporate debt securities. The ACL on these securities is determined by expert judgment, which is based on historical ratings-based average probabilities of default and industry average LGD 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.

Loan Portfolio

The following table presents the Bank's loan portfolio and ACL:

	December 31,	
($ in millions)	**2022**	**2021**
Residential real estate		
Single family	$ 98,768	$ 76,793
Home equity lines of credit	2,775	2,584
Single family construction	1,217	993
Total residential real estate	102,760	80,370
Income property		
Multifamily	21,588	15,966
Commercial real estate	10,830	8,531
Multifamily/commercial construction	2,139	1,927
Total income property	34,557	26,424
Business		
Capital call lines of credit	9,988	10,999
Tax-exempt	3,713	3,680
Other business	5,072	3,961
PPP	20	545
Total business	18,793	19,185
Other		
Stock secured	4,553	3,435
Other secured	3,191	2,457
Unsecured	3,014	3,085
Total other	10,758	8,977
Total loans held for investment	166,868	134,956
Less: Allowance for credit losses	(784)	(694)
Loans, net	$166,084	$134,262

The following table presents an analysis of our loan portfolio at December 31, 2022, by major geographic location:

($ in millions)	San Francisco Bay Area	New York Metro Area	Los Angeles Area	Boston Area	Other California Areas	Other	Total	%
Residential real estate								
Single family	$ 35,006	$ 18,969	$20,488	$ 8,937	$ 4,344	$11,024	$ 98,768	59%
Home equity lines of credit	1,057	369	624	298	100	327	2,775	2
Single family construction	246	304	319	52	55	241	1,217	1
Total residential real estate	36,309	19,642	21,431	9,287	4,499	11,592	102,760	62
Income property								
Multifamily	7,372	3,213	5,500	1,166	2,447	1,890	21,588	13
Commercial real estate	3,861	1,766	3,021	357	778	1,047	10,830	6
Multifamily/commercial construction	365	152	1,123	117	83	299	2,139	1
Total income property	11,598	5,131	9,644	1,640	3,308	3,236	34,557	20
Business								
Capital call lines of credit	3,200	3,766	837	560	90	1,535	9,988	6
Tax-exempt	1,061	709	908	381	306	348	3,713	2
Other business	1,716	766	848	385	271	1,086	5,072	3
PPP	10	2	6	1	—	1	20	—
Total business	5,987	5,243	2,599	1,327	667	2,970	18,793	11
Other								
Stock secured	747	646	754	300	233	1,873	4,553	3
Other secured	563	1,208	108	388	11	913	3,191	2
Unsecured	862	670	529	238	159	556	3,014	2
Total other	2,172	2,524	1,391	926	403	3,342	10,758	7
Total	$ 56,066	$ 32,540	$35,065	$13,180	$ 8,877	$21,140	$166,868	100%
% by location at December 31, 2022	34%	19%	21%	8%	5%	13%	100%	
% by location at December 31, 2021	36%	20%	20%	8%	5%	11%	100%	

At December 31, 2022 and 2021, 52% and 51%, respectively, of total loans were secured by real estate properties located in California. Future economic or political conditions, natural disasters (including the increasing prevalence or intensity of natural disasters as a result of the effects of climate change), 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 loan portfolio as of December 31, 2022. The maturity dates were determined based on the remaining scheduled principal repayment dates, without consideration of prepayments.

($ in millions)	1 Year or Less	>1 Through 5 Years	>5 Through 15 Years	>15 Years	Total
Residential real estate					
Single family	$ 129	$ 300	$ 1,396	$ 96,493	$ 98,318
Home equity lines of credit	76	150	80	2,418	2,724
Single family construction	589	633	—	—	1,222
Total residential real estate	794	1,083	1,476	98,911	102,264
Income property					
Multifamily	170	2,860	17,267	1,269	21,566
Commercial real estate	394	2,605	7,699	136	10,834
Multifamily/commercial construction	1,150	912	91	—	2,153
Total income property	1,714	6,377	25,057	1,405	34,553
Business					
Capital call lines of credit	9,281	717	—	—	9,998
Tax-exempt	2	39	375	3,299	3,715
Other business	1,325	1,488	2,080	185	5,078
PPP	1	19	—	—	20
Total business	10,609	2,263	2,455	3,484	18,811
Other					
Stock secured	3,885	651	11	—	4,547
Other secured	64	2,553	573	—	3,190
Unsecured	593	599	1,817	—	3,009
Total other	4,542	3,803	2,401	—	10,746
Total	$17,659	$ 13,526	$ 31,389	$103,800	$166,374

The following table presents the distribution (based on unpaid principal balance) of our loan portfolio outstanding as of December 31, 2022 that are due after one year between fixed and adjustable interest rates:

($ in millions)	Fixed	Adjustable	Total
Residential real estate			
Single family	$ 92,528	$ 5,661	$ 98,189
Home equity lines of credit	2	2,646	2,648
Single family construction	633	—	633
Total residential real estate	93,163	8,307	101,470
Income property			
Multifamily	19,512	1,884	21,396
Commercial real estate	9,325	1,115	10,440
Multifamily/commercial construction	633	370	1,003
Total income property	29,470	3,369	32,839
Business			
Capital call lines of credit	12	705	717
Tax-exempt	3,552	161	3,713
Other business	2,565	1,188	3,753
PPP	19	—	19
Total business	6,148	2,054	8,202
Other			
Stock secured	150	512	662
Other secured	158	2,968	3,126
Unsecured	2,299	117	2,416
Total other	2,607	3,597	6,204
Total	$131,388	$ 17,327	$148,715

The Bank's loan portfolio includes: (1) adjustable-rate loans tied to Prime, LIBOR, COFI Repl Index (which is based on Federal COFI plus/minus a spread adjustment equal to the five-year historical median spread between COFI and Federal COFI), and other reference rates, including a 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, 2022, by rate type:

	Adjustable Rate							
($ in millions)	Prime	LIBOR	COFI Repl Index [1]	Other	Total	Hybrid Rate	Fixed Rate	Total
Residential real estate								
Single family	$ 310	$2,373	$ 1,759	$ 169	$ 4,611	$61,957	$32,200	$ 98,768
Home equity lines of credit	2,774	—	—	—	2,774	1	—	2,775
Single family construction	—	—	—	—	—	—	1,217	1,217
Total residential real estate	3,084	2,373	1,759	169	7,385	61,958	33,417	102,760
Income property								
Multifamily	168	403	1,052	91	1,714	8,957	10,917	21,588
Commercial real estate	371	475	212	63	1,121	2,655	7,054	10,830
Multifamily/commercial construction	834	—	—	28	862	8	1,269	2,139
Total income property	1,373	878	1,264	182	3,697	11,620	19,240	34,557
Business								
Capital call lines of credit	9,284	201	—	249	9,734	234	20	9,988
Tax-exempt	105	144	—	—	249	456	3,008	3,713
Other business	1,821	158	5	221	2,205	279	2,588	5,072
PPP	—	—	—	—	—	—	20	20
Total business	11,210	503	5	470	12,188	969	5,636	18,793
Other								
Stock secured	1,379	318	—	2,569	4,266	—	287	4,553
Other secured	1,342	895	—	754	2,991	4	196	3,191
Unsecured	629	—	—	8	637	1	2,376	3,014
Total other	3,350	1,213	—	3,331	7,894	5	2,859	10,758
Total	$19,017	$4,967	$ 3,028	$4,152	$31,164	$74,552	$61,152	$166,868
% by rate type at December 31, 2022	11%	3%	2%	2%	18%	45%	37%	100%
% by rate type at December 31, 2021	14%	5%	3%	2%	24%	44%	32%	100%

[1] As a result of the discontinuation of COFI, the Bank transitioned loans formerly indexed to COFI to the COFI Repl Index in February 2022.

At December 31, 2022, included in the hybrid-rate and fixed-rate loan portfolios are $4.0 billion, or 2% of the total loan portfolio, that either (1) mature within one year or (2) are within one year of adjusting from the initial fixed-rate period.

LIBOR Transition

Many of our loan products determine the amount of interest by reference to certain benchmark rates or indices. The FHLB of San Francisco ceased calculating and publishing COFI on January 31, 2022. Additionally, in March 2021, the FCA announced the dates that panel bank submissions for all LIBOR settings will cease, after which the respective LIBOR settings will no longer be provided by any administrator, including the cessation of the one-week and two-month USD LIBOR tenors after December 31, 2021 and all other USD LIBOR tenors after June 30, 2023. In March 2022, President Biden signed the LIBOR Act into law. The LIBOR Act provides a statutory framework to replace USD LIBOR with a benchmark rate based on SOFR for contracts governed by U.S. law that have no fallbacks or fallbacks that would require the use of a poll or LIBOR-based rate. As contemplated by the LIBOR Act, in December 2022, the Board of Governors of the Federal Reserve adopted a rule which identifies different SOFR-based replacement rates for derivative contracts, for cash instruments such as floating-rate notes and preferred stock, for consumer loans, for certain government-sponsored enterprise contracts and for certain asset-backed securities. The Bank ceased offering new loans indexed to COFI in the first half of 2018 and to LIBOR in the first half of 2019. In lieu of COFI or LIBOR, new loan originations are generally indexed to Prime or a 12-month average of 1-year CMT. As the replacement index for COFI, the Bank selected COFI Repl Index and in February 2022, the Bank transitioned outstanding loans indexed to COFI to this new index. In July 2023, the Bank will transition outstanding loans indexed to USD LIBOR to Consumer Spread-Adjusted Term SOFR or Institutional Spread-Adjusted Term SOFR, as applicable. Consumer and Institutional Spread-Adjusted Term SOFR are based on term SOFR plus a spread adjustment equal to the five-year historical median spread between LIBOR and SOFR. For Consumer Spread-Adjusted Term SOFR, a portion of the spread adjustment will be phased in over the course of one year.

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 that fully and evenly amortizes until maturity following an initial interest-only period of generally ten years:

	December 31,			
	2022		2021	
($ in millions)	Unpaid Principal Balance	% of Total Single Family	Unpaid Principal Balance	% of Total Single Family
Interest-only single family	$57,943	59%	$46,620	61%

At December 31, 2022, 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 765 at origination. At December 31, 2022, 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.

The following table presents the years in which amortization begins for single family loans:

($ in millions)	December 31, 2022 Unpaid Principal Balance
Currently amortizing	$ 40,375
Amortization period starts in:	
2023	496
2024	546
2025	742
2026	1,823
2027	2,598
2028 and thereafter	51,738
Total	$ 98,318

The following table presents LTV information at origination for all single family loans:

($ in millions)	December 31, 2022	
	Unpaid Principal Balance	% of Total
LTV at Origination		
Less than or equal to 60%	$49,544	50.4%
Greater than 60% to 70%	29,902	30.4
Greater than 70% to 80%	18,365	18.7
Greater than 80%	507	0.5
Total	$98,318	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, 2022, 39% of HELOCs are in first lien position, and 50% of HELOCs are in second lien position behind a first residential mortgage originated by us, including loans subsequently sold to investors, based on total commitment.

The following table presents CLTV information at origination for HELOCs:

($ in millions)	December 31, 2022		
	Unpaid Principal Balance	Total Commitment	% of Unpaid Principal Balance
CLTV at Origination			
Less than or equal to 60%	$ 1,961	$ 7,854	72.0%
Greater than 60% to 70%	570	1,880	20.9
Greater than 70% to 80%	179	422	6.6
Greater than 80%	14	15	0.5
Total	$ 2,724	$ 10,171	100.0%

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

($ in millions)	December 31, 2022	
	Unpaid Principal Balance	Total Commitment
Currently amortizing	$ 66	$ 68
Amortization period starts in:		
2023	141	419
2024	170	503
2025	143	532
2026	199	740
2027	186	761
2028 and thereafter	1,819	7,148
Total	$ 2,724	$ 10,171

Single Family Construction

Our single family construction loan portfolio includes loans to individual clients for the construction and ownership of 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, 2022 and 2021, the unpaid principal balance of single family construction loans was $1.2 billion and $996 million, respectively, and the total commitment was $3.0 billion and $2.0 billion, respectively.

Income property

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

Multifamily

The following table presents multifamily loans and multifamily 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:

	Unpaid Principal Balance	
	December 31,	
($ in millions)	2022	2021
Multifamily	$ 21,566	$ 15,960
Multifamily—interest-only [(1)]	$ 11,738	$ 7,518

(1) Excludes lines of credit.

At December 31, 2022, interest-only multifamily loans (excluding lines of credit) had a weighted average LTV of 52% 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 interest-only lines of credit secured by the equity in multifamily real estate:

	December 31,					
	2022			2021		
($ in millions)	Unpaid Principal Balance	Total Commitment	% of Total Multifamily	Unpaid Principal Balance	Total Commitment	% of Total Multifamily
Multifamily lines of credit—interest-only	$ 848	$ 1,408	3.9%	$ 432	$ 827	2.7%

At December 31, 2022, interest-only multifamily lines of credit had a weighted average LTV of 55% based on the appraised value at the time of origination.

Commercial Real Estate

The following table presents 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:

	Unpaid Principal Balance	
	December 31,	
($ in millions)	2022	2021
Commercial real estate	$ 10,834	$ 8,537
Commercial real estate—interest-only [(1)]	$ 4,200	$ 2,886

(1) Excludes lines of credit.

At December 31, 2022, 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 interest-only lines of credit secured by the equity in commercial real estate:

	December 31,					
	2022			2021		
($ in millions)	Unpaid Principal Balance	Total Commitment	% of Total Commercial Real Estate	Unpaid Principal Balance	Total Commitment	% of Total Commercial Real Estate
Commercial real estate lines of credit—interest-only	$ 541	$ 1,008	5.0%	$ 442	$ 939	5.2%

At December 31, 2022, interest-only commercial real estate lines of credit had a weighted average LTV of 43% based on the appraised value at the time of origination.

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, 2022 and 2021, the unpaid principal balance of multifamily/commercial construction loans was $2.2 billion and $1.9 billion, respectively, and the total commitment was $4.0 billion and $3.4 billion, respectively.

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 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, and museums. 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 our business loan portfolio by type:

($ in millions)	December 31, 2022 Amortized Cost	2022 Total Commitment	2022 % of Amortized Cost	2021 Amortized Cost	2021 Total Commitment	2021 % of Amortized Cost
Private Equity/Venture Capital Funds	$ 10,664	$ 31,648	57%	$ 11,657	$ 27,244	61%
Schools/Non-Profit Organizations	4,197	5,518	22	4,053	5,244	21
Investment Firms	638	1,478	3	425	1,229	2
Real Estate Related Entities	937	1,329	5	792	1,130	4
Professional Service Firms	385	764	2	369	689	2
Aviation/Marine	617	625	3	454	475	2
Vineyards/Wine	162	253	1	143	235	1
Clubs and Membership Organizations	144	213	1	114	160	1
Other	1,029	1,565	6	633	1,140	3
Total excluding PPP	18,773	43,393	100	18,640	37,546	97
PPP [1]	20	20	—	545	555	3
Total including PPP	$ 18,793	$ 43,413	100%	$ 19,185	$ 38,101	100%

(1) Total commitment related to PPP excludes net deferred fees unamortized balance of $10 million for December 31, 2021.

The following table presents our business lines of credit by type:

($ in millions)	December 31, 2022 Unpaid Principal Balance	2022 Total Commitment	2022 Utilization Percentage	2021 Unpaid Principal Balance	2021 Total Commitment	2021 Utilization Percentage
Private Equity/Venture Capital Funds	$10,406	$ 31,378	33.2%	$11,620	$ 27,200	42.7%
Schools/Non-Profit Organizations	535	1,855	28.8%	631	1,820	34.7%
Investment Firms	459	1,298	35.4%	266	1,070	24.9%
Real Estate Related Entities	232	623	37.2%	276	613	45.0%
Professional Service Firms	225	605	37.2%	238	559	42.6%
Vineyards/Wine	62	153	40.5%	45	137	32.8%
Clubs and Membership Organizations	47	115	40.9%	30	75	40.0%
Aviation/Marine	33	41	80.5%	23	43	53.5%
Other	345	878	39.3%	311	816	38.1%
Total	$12,344	$ 36,946	33.4%	$13,440	$ 32,333	41.6%

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, 2022, the unpaid principal balance and total commitment for capital call lines of credit was $10.0 billion and $30.5 billion, respectively, resulting in a utilization rate for these lines of credit of 32.8% at December 31, 2022.

The following table presents our business term loans by type:

($ in millions)	Unpaid Principal Balance December 31, 2022	Unpaid Principal Balance December 31, 2021
Schools/Non-profit Organizations	$ 3,663	$ 3,424
Real Estate Related Entities	706	517
Aviation/Marine	584	432
Private Equity/Venture Capital Funds	270	44
Investment Firms	180	159
Professional Service Firms	159	130
Vineyards/Wine	100	98
Clubs and Membership Organizations	98	85
Other	687	324
Total excluding PPP	6,447	5,213
PPP	20	555
Total including PPP	$ 6,467	$ 5,768

Other

The following table presents other loans which include stock secured, other secured and unsecured loans:

($ in millions)	December 31, 2022 Unpaid Principal Balance	2022 Total Commitment	December 31, 2021 Unpaid Principal Balance	2021 Total Commitment
Stock secured	$ 4,547	$ 12,336	$ 3,430	$ 9,273
Other secured	3,190	7,063	2,456	5,053
Unsecured	3,009	4,428	3,080	4,347
Total	$10,746	$ 23,827	$ 8,966	$ 18,673

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 professional loan program loans, including term loans and lines of credit, which offer individuals an ability to borrow for capital and partnership requirements. Such loans had an unpaid principal balance of $3.1 billion and $2.3 billion at December 31, 2022 and 2021, respectively, and total commitments of $6.8 billion and $4.8 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 $2.2 billion and $2.1 billion at December 31, 2022 and 2021, respectively, and total commitments of $2.7 billion and $2.5 billion at December 31, 2022 and 2021, respectively.

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	**2022**	**2021**
Home equity lines of credit	26.3%	27.5%
Single family construction	41.0%	50.1%
Multifamily	60.2%	52.4%
Commercial real estate	53.9%	47.0%
Multifamily/commercial construction	50.6%	54.9%
Capital call lines of credit	32.8%	41.8%
Tax-exempt	40.2%	62.2%
Other business	35.6%	36.4%
Stock secured	36.0%	36.8%
Other secured	42.1%	44.8%
Unsecured	47.7%	47.0%

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, 2022, we have originated $457.9 billion of loans, of which $36.1 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 millions)	Year Ended December 31, 2022	2021	2020
Residential real estate			
Single family	$31,907	$29,575	$23,986
Home equity lines of credit	2,640	2,440	1,905
Single family construction	1,579	968	639
Total residential real estate	36,126	32,983	26,530
Income property			
Multifamily	8,278	4,815	3,701
Commercial real estate	3,402	2,094	1,414
Multifamily/commercial construction	1,731	1,129	1,301
Total income property	13,411	8,038	6,416
Business			
Capital call lines of credit	11,825	12,871	9,448
Tax-exempt	555	590	919
Other business	3,304	2,729	2,549
PPP	—	725	1,982
Total business	15,684	16,915	14,898
Other			
Stock secured	3,818	3,205	2,467
Other secured	2,883	2,130	1,375
Unsecured	1,475	1,539	998
Total other	8,176	6,874	4,840
Total loans originated	$73,397	$64,810	$52,684

Total loan originations were $73.4 billion in 2022, compared to $64.8 billion in 2021, and $52.7 billion in 2020, an increase of 13% in 2022 and an increase of 23% in 2021. Loan originations increased in 2022 primarily due to increases in single family, multifamily and commercial real estate lending. 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. Due to the magnitude and pace of interest rate increases over 2022, and anticipated continued interest rate increases in 2023, our loan portfolio may grow at a slower rate than we have experienced in the past.

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, 2022	2021	2020
Single family	61%	59%	56%
Home equity lines of credit [1]	49%	50%	49%
Single family construction	54%	55%	58%
Multifamily	53%	51%	51%
Commercial real estate	46%	45%	46%
Multifamily/commercial construction	55%	54%	53%

(1) 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 borrower's 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.

	Year Ended December 31,		
Weighted Average Credit Scores	**2022**	**2021**	**2020**
Single family	770	769	771
Home equity lines of credit	770	773	770

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:

	Year Ended December 31,		
Purchase and Refinance Composition	**2022**	**2021**	**2020**
Purchase loans	54%	45%	34%
Refinance loans	46	55	66
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:

	December 31,	
Portfolio LTVs	**2022**	**2021**
Single family [1]	59%	58%
Home equity lines of credit [2]	49%	50%
Single family construction	55%	56%
Multifamily	52%	51%
Commercial real estate	46%	46%
Multifamily/commercial construction	54%	54%

[1] Includes any loans held for sale, when applicable.
[2] 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. Our ARMs provide for a life cap 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 (i.e., 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.

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.

Nonaccrual and Other Information

The following table presents total 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:

	December 31,	
($ in millions)	**2022**	**2021**
Nonperforming assets:		
Nonaccrual loans	$ 109	$ 139
Other real estate owned	—	—
Total nonperforming assets	$ 109	$ 139
Nonperforming assets to total assets	0.05%	0.08%
Accruing loans 90 days or more past due	$ —	$ —
Restructured accruing loans	$ 12	$ 13

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, 2022, 2021, and 2020.

Of the loans on nonaccrual status, $58 million were current at December 31, 2022, compared to $52 million at December 31, 2021.

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

Allowance for Credit Losses on Loans

The Bank estimates its ACL on loans 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.

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." In addition, see Note 4 in "Item 8. Financial Statements and Supplementary Data" for information related to changes in the ACL for loans for the years ended December 31, 2022, 2021, and 2020. For further discussion of the Bank's ACL on loans, see "—Critical Accounting Policies and Estimates—Allowance for Credit Losses on Loans."

The following table presents our net loan charge-offs, ACL on loans, average total loans, total loans and total nonaccrual loans, as well as ratios related to these measures:

($ in millions)	At or for the Year Ended December 31, 2022	At or for the Year Ended December 31, 2021
Net loan charge-offs	$ 3	$ 2
Allowance for credit losses on loans	$ 784	$ 694
Average total loans	$ 150,218	$123,106
Total loans	$ 166,868	$134,956
Total nonaccrual loans	$ 109	$ 139
Ratios:		
Net loan charge-offs to average total loans	0.00%	0.00%
Nonaccrual loans to total loans	0.07%	0.10%
Allowance for credit losses on loans to:		
Total loans	0.47%	0.51%
Nonaccrual loans	720.5%	500.5%

The following table presents net loan charge-offs (recoveries) to average loans outstanding:

	Year Ended December 31,								
	2022			2021			2020		
($ in millions)	Net loan charge-offs (recoveries)	Average Balance	%	Net loan charge-offs (recoveries)	Average Balance	%	Net loan charge-offs (recoveries)	Average Balance	%
Single family	$ 2	$ 88,256	0.00%	$ 1	$ 69,330	0.00%	$ 2	$ 53,135	0.00%
Home equity lines of credit	1	2,689	0.04%	—	2,437	0.00%	—	2,481	0.00%
Single family construction	—	1,097	0.00%	—	888	0.00%	—	743	0.00%
Multifamily	—	18,453	0.00%	—	14,735	0.00%	—	13,092	0.00%
Commercial real estate	—	9,399	0.00%	—	8,260	0.00%	—	7,752	0.00%
Multifamily/ commercial construction	—	2,026	0.00%	—	2,067	0.00%	—	1,935	0.00%
Capital call lines of credit	—	10,403	0.00%	—	8,947	0.00%	—	6,619	0.00%
Tax-exempt	—	3,641	0.00%	—	3,533	0.00%	—	3,195	0.00%
Other business	—	4,322	0.00%	(1)	3,553	(0.03)%	—	3,032	0.00%
PPP	—	147	0.00%	—	1,418	0.00%	—	1,432	0.00%
Stock secured	—	3,998	0.00%	—	2,872	0.00%	—	2,079	0.00%
Other secured	—	2,777	0.00%	—	2,043	0.00%	—	1,635	0.00%
Unsecured	—	3,010	0.00%	2	3,023	0.07%	—	3,128	0.00%
Total	$ 3	$150,218	0.00%	$ 2	$123,106	0.00%	$ 2	$100,258	0.00%

The following table presents the allocation of the ACL on loans:

	December 31,					
	2022		2021		2020	
($ in millions)	Allowance for Credit Losses	% of Loan Portfolio	Allowance for Credit Losses	% of Loan Portfolio	Allowance for Credit Losses	% of Loan Portfolio
Single family	$ 203	59%	$ 157	57%	$ 137	54%
Home equity lines of credit	5	2	4	2	8	2
Single family construction	8	1	5	1	4	1
Multifamily	187	13	121	12	121	12
Commercial real estate	96	6	82	6	71	7
Multifamily/commercial construction	25	1	24	1	36	2
Capital call lines of credit	61	6	123	8	90	7
Tax-exempt	51	2	47	3	40	3
Other business	99	3	78	3	68	3
PPP	—	—	—	—	—	2
Stock secured	—	3	—	3	—	2
Other secured	10	2	8	2	8	2
Unsecured	39	2	45	2	52	3
Total	$ 784	100%	$ 694	100%	$ 635	100%

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. 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." In addition, see Note 4 in "Item 8. Financial Statements and Supplementary Data" for information related to changes in the ACL on unfunded loan commitments for the years ended December 31, 2022, 2021, and 2020.

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 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 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.

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, 2022, the Bank has an obligation to reimburse Freddie Mac for losses up to $30 million, or 12% of the multifamily loans securitized in 2018. As of December 31, 2022, the weighted average LTV of those loans was 54% based on the appraised value at the time of origination. There was no liability for estimated losses related to this reimbursement obligation at December 31, 2022, and the Bank has experienced no cumulative losses on the loans within this securitization through December 31, 2022. The remaining unpaid principal balance of multifamily loans securitized was $43 million at December 31, 2022, compared to $71 million at December 31, 2021 and $252 million at the time of securitization in 2018.

In connection with single family loans securitized in 2020, 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 securities was $8 million as of December 31, 2022, compared to $10 million as of December 31, 2021. There have been no cumulative losses on the loans within the securitization through December 31, 2022. The remaining unpaid principal balance

of single family loans securitized was $164 million at December 31, 2022, compared to $195 million at December 31, 2021 and $300 million at the time of securitization in 2020.

Mortgage loans serviced for investors decreased to $3.5 billion at December 31, 2022, from $4.7 billion at December 31, 2021, due to repayments in the servicing portfolio exceeding loan sales over the past twelve months. The average servicing portfolio was $4.0 billion in 2022, a decrease of 32% compared to $5.8 billion in 2021, and a decrease in 2021 of 31% compared to $8.4 billion in 2020. The overall repayment speed experienced on loans serviced was 26% in 2022, compared to 35% in 2021, and 31% in 2020. At December 31, 2022, MSRs were $11 million (33 bps of loans serviced), compared to $16 million (35 bps of loans serviced) at December 31, 2021.

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 $10 million on single family loans sold. At December 31, 2022, single family loans serviced for investors that are 90 days or more past due were $5 million, or 14 bps of such loans serviced.

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, 2022, our total deposits were $176.4 billion, a 13% increase from $156.3 billion at December 31, 2021, as we continued to expand relationships with existing clients and acquire new deposit clients, both business and consumer. However, our total deposits grew at a slower rate in 2022 than 2021. Refer to "—Financial Highlights—Deposits and Funding" for additional discussion of our deposit funding. Estimated uninsured deposits totaled $119.5 billion and $116.7 billion as of December 31, 2022 and 2021, respectively. Estimates of uninsured deposits are based on the methodologies and assumptions used in our Consolidated Reports of Condition and Income ("Call Report") filings.

The following table presents the balances and average contractual cost of deposits:

	December 31,			
	2022		2021	
($ in millions)	Amount	Weighted Average Cost	Amount	Weighted Average Cost
Noninterest-bearing checking	$ 62,579	—%	$ 70,840	—%
Interest-bearing checking	41,178	0.70%	41,248	0.01%
Money market checking	25,805	2.64%	20,303	0.10%
Money market savings and passbooks	21,663	2.34%	16,573	0.15%
CDs	25,212	3.15%	7,357	0.41%
Total	$176,437	1.29%	$156,321	0.05%

Total deposits included $5.3 billion of brokered deposits at December 31, 2022, compared to $851 million at December 31, 2021. The weighted average contractual rate paid on brokered deposits was 3.81% and 0.02% at December 31, 2022 and 2021, 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, public deposits, third-party broker dealer sweeps, negotiable CDs, foreign exchange 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 millions)	December 31, 2022	December 31, 2021
Preferred Banking:		
San Francisco Bay Area	$ 44,026	$ 41,464
New York Metro Area	25,117	26,059
Boston Area	13,776	13,378
Los Angeles Area	9,147	9,102
Other [1]	8,048	7,489
Subtotal	100,114	97,492
Preferred Banking Offices:		
San Francisco Bay Area	26,921	25,523
New York Metro Area	8,087	7,556
Los Angeles Area	4,821	4,126
Boston Area	2,971	3,021
Other [2]	6,799	5,958
Subtotal	49,599	46,184
Wealth management sweep	10,150	10,540
Other	16,574	2,105
Total deposits	$176,437	$156,321

(1) Consists of deposits domiciled in San Diego, California; Portland, Oregon; Bellevue, Washington; and the Palm Beach, Florida region.
(2) Consists of deposits domiciled in San Diego, California; Portland, Oregon; Bellevue, Washington; Jackson, Wyoming; and the Palm Beach, Florida region.

The following table presents business and consumer deposits:

($ in millions)	December 31, 2022	December 31, 2021
Business deposits:		
Checking	$ 74,112	$ 74,709
Money market checking	17,440	11,542
Money market savings	11,420	5,232
CDs	7,931	1,568
Subtotal	110,903	93,051
Percentage of total deposits	63%	60%
Consumer deposits:		
Checking	29,644	37,379
Money market checking	8,365	8,762
Money market savings and passbooks	10,244	11,341
CDs	17,281	5,788
Subtotal	65,534	63,270
Percentage of total deposits	37%	40%
Total deposits	$176,437	$156,321

At December 31, 2022, the weighted average contractual rate paid on CDs was 3.15%, and the weighted average remaining maturity of CDs was 3.0 months. The contractual maturities and weighted average contractual rate of our CDs were as follows:

($ in millions)	December 31, 2022 Amount	December 31, 2022 Rate
CDs maturing in:		
2023	$24,496	3.15%
2024	596	3.27%
2025	75	1.83%
2026	23	0.70%
2027	20	0.91%
2028 and thereafter	2	1.44%
Total	$25,212	3.15%

We fund a portion of our assets with CDs that have balances greater than the FDIC insurance limit of $250,000. At December 31, 2022, our CDs having balances greater than the FDIC insurance limit by account totaled $12.0 billion, and the maturities of such CDs are presented in the following table:

($ in millions)	December 31, 2022
Remaining maturity:	
Three months or less	$ 9,535
Over three through six months	1,329
Over six through twelve months	938
Over twelve months	205
Total	$ 12,007

Borrowings

Our other sources of funding include both short-term and long-term borrowings. 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. The level and mix of short-term and long-term borrowings vary based on funding needs and market conditions. The following table presents the carrying values and weighted average contractual rates of short-term borrowings and long-term debt:

	Carrying Value		Rate	
	December 31,		December 31,	
($ in millions)	2022	2021	2022	2021
Short-term borrowings:				
FHLB advances	$6,700	$ 0	4.40%	—%
Long-term debt:				
FHLB advances	$7,300	$3,700	2.35%	0.95%
Senior notes	500	998	1.91%	2.21%
Subordinated notes	779	779	4.50%	4.50%
Total long-term debt	$8,579	$5,477	2.52%	1.69%

The increases in short-term and long-term borrowings were driven primarily by new FHLB advances, which were utilized as additional sources of funding in 2022. In addition, the 2.500% Senior Notes due 2022 with a principal balance of $500 million were redeemed in the second quarter of 2022, and, therefore, were no longer outstanding as of December 31, 2022.

As of December 31, 2022, the weighted average remaining maturity of long-term FHLB advances was 1.4 years.

See Note 13 in "Item 8. Financial Statements and Supplementary Data" for further discussion of borrowings. In addition, refer to Note 26 in "Item 8. Financial Statements and Supplementary Data" for information regarding the Bank's redemption of its 1.912% Senior Fixed-to-Floating Rate Notes due 2024 with an outstanding principal balance of $500 million on February 12, 2023.

At December 31, 2022, we had $55.2 billion of unused, available borrowing capacity at the FHLB supported by pledged loans. In addition, we had $6.7 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 29% of total assets.

Liquidity and Capital Resources

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. Our traditional funding sources consist primarily of deposits, borrowings and equity. Other sources of liquidity consist of liquid assets such as cash and cash equivalents, as well as marketable, highly liquid securities and loans.

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, Chief Financial Officer 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

Refer to "—Balance Sheet Analysis—Deposit Gathering" and "—Balance Sheet Analysis—Borrowings" for further discussion of the composition of deposit and borrowing sources. In addition, we issue preferred stock and common stock as funding sources, which are also components of regulatory capital. Refer to "—Regulatory Capital Components and Ratios," as well as Notes 17 and 18 in "Item 8. Financial Statements and Supplementary Data" for additional discussion of the Bank's preferred and common stock.

As discussed in Part I, "Item 1A. Risk Factors—We are subject to liquidity risk, which could impair our ability to fund various obligations," 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. Management believes that the sources of available liquidity are well-diversified and adequate to meet all reasonably foreseeable short-term and long-term demands.

HQLA

At December 31, 2022, assets that are considered HQLA, including eligible cash, were $26.0 billion, or 13% of average total assets for the fourth quarter of 2022. HQLA include $11.3 billion of municipal securities.

Cash Requirements

Our short-term liquidity requirements primarily relate to operating expenses, financing of short-term assets, and payments relating to ongoing commitments and obligations due within one year. Our long-term liquidity requirements primarily relate to loan originations, investment purchases, the funding of long-term assets, and the meeting of ongoing commitments and obligations due in excess of one year. For additional discussion, see "—Commitments and Contractual Obligations."

Cash Flows

The following table presents the Bank's net cash provided by or used for operating, investing and financing activities, as well as cash balances for the periods indicated:

	At or for the Year Ended December 31,			% Change	
($ in millions)	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Net cash provided by operating activities	$ 252	$ 1,204	$ 531	79%	127%
Net cash used for investing activities	$ (38,805)	$ (29,143)	$ (21,855)	(33)%	33%
Net cash provided by financing activities	$ 29,889	$ 35,791	$ 24,719	(16)%	45%
Cash and cash equivalents at the end of period	$ 4,283	$ 12,947	$ 5,095	(67)%	154%

Net cash used for investing activities consisted primarily of loan originations and purchases of investment securities. The increase in investing outflows in 2022, compared to 2021, was primarily attributable to growth in loan originations. Net cash provided by financing activities consisted primarily of growth in deposits and proceeds from borrowings. Lower cash financing inflows in 2022, compared to 2021, was primarily the result of lower growth in deposits, offset by an increase in short-term and long-term FHLB advances. For additional information about the Bank's sources and uses of cash, refer to the Consolidated Statements of Cash Flows in "Item 8. Financial Statements and Supplementary Data."

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 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 these 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.

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 million, or 12% of the multifamily loans securitized. At December 31, 2022, there was no liability for estimated losses related to this reimbursement obligation.

The following table presents information regarding our significant contractual obligations at December 31, 2022, and expected timing of payments for these obligations. Deposit obligations categorized as "indeterminate maturity" include all deposits other than CDs. Our deposit and borrowing obligations in the following table exclude contractual interest. Lease liabilities represent undiscounted lease payments over the lease term and exclude leases signed but not yet commenced.

	Contractual Payments by Period					
($ in millions)	Less Than 1 Year	1 to 3 Years	>3 to 5 Years	> 5 Years	Indeterminate Maturity	Total
Deposits	$ 24,496	$ 671	$ 43	$ 2	$ 151,225	$ 176,437
FHLB advances	$ 9,225	$ 4,375	$ 400	$ —	$ —	$ 14,000
Senior notes	$ 500	$ —	$ —	$ —	$ —	$ 500
Subordinated notes	$ —	$ —	$ —	$ 800	$ —	$ 800
Unfunded commitments—tax credit and other investments	$ 272	$ 400	$ 27	$ 69	$ —	$ 768
Lease liabilities	$ 184	$ 360	$ 320	$ 967	$ —	$ 1,831

See Notes 7, 9, 12, 13 and 26 in "Item 8. Financial Statements and Supplementary Data" for additional information regarding tax credit investments, leases, deposits and borrowings presented in the table above.

Regulatory Capital Components and Ratios

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

	December 31,	
($ in millions)	2022	2021
Regulatory Capital Components		
Shareholders' equity	$ 17,446	$ 15,898
CECL Capital Rule retained earnings adjustments [1]	43	58
CET1 capital adjustments and deductions:		
Preferred stock	(3,633)	(3,633)
Goodwill and other intangible assets, net of DTLs	(185)	(194)
DTAs that arise from tax credit carryforwards, net of DTLs	(82)	(115)
Accumulated other comprehensive loss	331	31
CET1 capital	13,920	12,045
Preferred stock	3,633	3,633
Additional Tier 1 capital	3,633	3,633
Tier 1 capital	17,553	15,678
Tier 2 capital instruments—subordinated notes [2]	779	779
Qualifying ACL [3]	831	727
CECL Capital Rule ACL adjustments [1]	(45)	(60)
Tier 2 capital	1,565	1,446
Total risk-based capital	$ 19,118	$ 17,124
Assets		
Average assets	$206,328	$178,911
CECL Capital Rule average assets adjustments [1]	43	58
Average assets after adjustments	$206,371	$178,969
RWAs	$151,781	$124,825
CECL Capital Rule DTAs adjustments [1]	(4)	(5)
RWAs after adjustments	$151,777	$124,820

(1) Beginning in 2020, amounts reflect the Bank's election to delay the estimated impact of the CECL ACL methodology on its regulatory capital, average assets and RWAs over a five-year transition period ending December 31, 2024.
(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, 2022 and 2021, the Bank's noncumulative perpetual preferred stock was 21% and 23% of Tier 1 capital, respectively.

We may, from time to time, issue additional common stock, preferred stock, or other forms of capital or debt instruments depending on market conditions and subject to any required regulatory approvals. During 2022, the Bank sold 2,587,500 new shares of common stock in an underwritten public offering, which added $402 million to common equity. Refer to Note 26 in "Item 8. Financial Statements and Supplementary Data" for information regarding the Bank's underwritten public offering of 2,875,000 new shares of common stock in February 2023, which added $397 million to common equity.

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 for the four calendar quarters preceding the current calendar quarter).

Our capital ratios exceeded all applicable regulatory requirements at December 31, 2022 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:

	December 31,		Regulatory Requirements		
Capital Ratios [1]	**2022**	**2021**	**Well-Capitalized Ratio**	**Minimum Capital Ratio**	**Minimum Capital Conservation Buffer** [2]
Tier 1 leverage ratio (Tier 1 capital to average assets)	8.51%	8.76%	5.00%	4.00%	—%
CET1 capital to RWAs	9.17%	9.65%	6.50%	4.50%	2.50%
Tier 1 capital to RWAs	11.56%	12.56%	8.00%	6.00%	2.50%
Total capital to RWAs	12.60%	13.72%	10.00%	8.00%	2.50%

(1) Beginning in 2020, ratios reflect the Bank's election to delay the estimated impact of the CECL ACL methodology over a five-year transition period ending December 31, 2024.

(2) As of December 31, 2022, our capital conservation buffer was 4.60%, which exceeded the minimum requirement of 2.5% required to be held by banking institutions.

Return on Average Common Shareholders' Equity and Return on Average Tangible Common Shareholders' Equity

The following table presents the components of return on average common shareholders' equity and return on average tangible common shareholders' equity:

Return on Average Common Shareholders' Equity and Return on Average Tangible Common Shareholders' Equity [1]	Year Ended December 31, 2022	2021	2020
($ in millions)			
Average common shareholders' equity (a)	$ 12,996	$ 11,263	$ 9,492
Less: Average goodwill and other intangible assets	(220)	(225)	(231)
Average tangible common shareholders' equity (b)	$ 12,776	$ 11,038	$ 9,261
Net income available to common shareholders (c)	$ 1,507	$ 1,379	$ 1,005
Return on average common shareholders' equity (c) / (a)	11.60%	12.24%	10.59%
Return on average tangible common shareholders' equity (c) / (b)	11.80%	12.49%	10.86%

(1) Return on average tangible common shareholders' equity is considered a non-GAAP financial measure, and is reconciled to GAAP return on average common shareholders' equity in this table.

Book Value per Common Share and Tangible Book Value per Common Share

The following table presents the components of book value per common share and tangible book value per common share:

Book Value per Common Share and Tangible Book Value per Common Share [1]	December 31, 2022	2021
(in millions, except per share amounts)		
Total shareholders' equity	$17,446	$15,898
Less: Preferred stock	(3,633)	(3,633)
Total common shareholders' equity (a)	13,813	12,265
Less: Goodwill and other intangible assets	(218)	(222)
Total tangible common shareholders' equity (b)	$13,595	$12,043
Number of shares of common stock outstanding (c)	183	179
Book value per common share (a) / (c)	$ 75.38	$ 68.34
Tangible book value per common share (b) / (c)	$ 74.19	$ 67.10

(1) Tangible book value per common share is considered a non-GAAP financial measure, and is reconciled to GAAP book value per common share in this table.

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 short-term borrowings to fund short-term assets or bridge temporary funding needs.

In addition to the volume, 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 wholesale funding, 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.

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 $40.5 billion, or 20% of total earning assets at December 31, 2022. Of these earning assets, the Bank has loans which are currently adjustable and reprice with indices or mature within one year totaling $35.1 billion, or 21% of the total loan portfolio at December 31, 2022. The loan portfolio that reprices at least quarterly to market rate indices, such as Prime or LIBOR, totaled $24.4 billion, or 15% of the total loan portfolio at December 31, 2022. The loan portfolio with lagging indices, such as the COFI Repl Index or CMT, totaled $6.7 billion, or 4% of the total loan portfolio at December 31, 2022. Additionally, the loan portfolio that either (1) matures within one year or (2) is within one year of adjusting from the initial fixed-rate period totaled $4.0 billion, or 2% of the total loan portfolio at December 31, 2022. In addition, at December 31, 2022, the Bank held $3.8 billion in cash and $1.6 billion in investment securities (collectively, 15% 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 $103.8 billion, or 59% of total deposits at December 31, 2022. Total checking deposits include both noninterest-bearing checking accounts and interest-bearing checking accounts, but exclude money market checking accounts. 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 $47.5 billion, or 27% of total deposits at December 31, 2022. CDs were $25.2 billion, or 14% of total deposits and had a weighted average remaining maturity of 3.0 months at December 31, 2022.

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 $7.3 billion at December 31, 2022 and had a weighted average remaining maturity of 1.4 years. We may also utilize short-term borrowings to fund short-term assets or bridge temporary funding needs. Such borrowings totaled $6.7 billion at December 31, 2022. In addition, the Bank has also issued unsecured, term, fixed-to-floating rate senior notes and fixed-rate subordinated notes. At December 31, 2022, the senior notes had a carrying value of $500 million and the subordinated notes had a carrying value of $779 million. The maturity dates and optional redemption dates for the senior and subordinated notes are discussed in Note 13 in "Item 8. Financial Statements and Supplementary Data." In addition, refer to Note 26 in "Item 8. Financial Statements and Supplementary Data" for information regarding the Bank's redemption of its 1.912% Senior Fixed-to-Floating Rate Notes due 2024 with an outstanding principal balance of $500 million on February 12, 2023.

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, direction 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 non-interest bearing and interest-bearing products or non-deposit alternatives, (5) varying sensitivities of financial instruments due to differing underlying rate indices or relevant spreads, (6) loan prepayment speeds for different interest rate and market 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 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, 2022, 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 and 200 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").

	Estimated Increase (Decrease) in Net Interest Income	
Change in Market Interest Rates	**Twelve Months Ending December 31, 2023**	**Twelve Months Ending December 31, 2024**
Shock:		
+200 bps immediately	(6.0)%	(10.3)%
+100 bps immediately	(3.1)%	(5.0)%
-100 bps immediately	2.1%	4.8%
-200 bps immediately	3.7%	7.8%
Ramp:		
+200 bps over next 12 months	(1.5)%	(9.0)%
+100 bps over next 12 months	(0.8)%	(4.4)%
-100 bps over next 12 months	0.1%	4.0%
-200 bps over next 12 months	0.3%	6.5%

The Bank's net interest income sensitivity position is a combined result of the existing balance sheet and future growth projections as of December 31, 2022 and indicates that liabilities are expected to overall reprice or roll off at a pace marginally faster than that of assets over the course of the next 24 months. This would generally be beneficial to net interest income in hypothetical parallel falling rate environments.

With respect to deposit balances, we model non-interest bearing and interest-bearing checking balances, which exclude money market checking, to gradually trend below the current level of 59% of total deposits over the two-year horizon.

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 millions, except share amounts)	December 31, 2022	2021
ASSETS		
Cash and cash equivalents	$ 4,283	$ 12,947
Debt securities available-for-sale (amortized cost of $3,817 and $3,425, respectively, and no allowance for credit losses at each respective period-end)	3,347	3,381
Debt securities held-to-maturity, net of allowance for credit losses of $11 and $9, respectively (fair value of $23,587 and $23,422, respectively)	28,348	22,292
Equity securities (fair value)	24	28
Loans	166,868	134,956
Less: Allowance for credit losses	(784)	(694)
Loans, net	166,084	134,262
Investments in life insurance	3,435	2,650
Tax credit investments	1,383	1,220
Premises, equipment and leasehold improvements, net	483	454
Goodwill and other intangible assets	218	222
Other assets	5,034	3,631
Total Assets	$212,639	$181,087
LIABILITIES AND SHAREHOLDERS' EQUITY		
Liabilities:		
Deposits:		
Noninterest-bearing checking	$ 62,579	$ 70,840
Interest-bearing checking	41,178	41,248
Money market checking	25,805	20,303
Money market savings and passbooks	21,663	16,573
Certificates of deposit	25,212	7,357
Total Deposits	176,437	156,321
Short-term FHLB advances	6,700	—
Long-term FHLB advances	7,300	3,700
Senior notes	500	998
Subordinated notes	779	779
Other liabilities	3,477	3,391
Total Liabilities	195,193	165,189
Shareholders' Equity:		
Preferred stock, $0.01 par value per share; authorized 25,000,000 shares; issued and outstanding 3,632,500 shares at each respective period-end	3,633	3,633
Common stock, $0.01 par value per share; authorized 400,000,000 shares; issued and outstanding 183,249,572 shares and 179,473,451 shares, respectively	2	2
Additional paid-in capital	6,256	5,725
Retained earnings	7,886	6,569
Accumulated other comprehensive loss	(331)	(31)
Total Shareholders' Equity	17,446	15,898
Total Liabilities and Shareholders' Equity	$212,639	$181,087

See accompanying notes to consolidated financial statements.

FIRST REPUBLIC BANK

CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME

($ in millions, except per share amounts)	Year Ended December 31, 2022	2021	2020
Interest income:			
Loans	$4,803	$3,725	$3,245
Investments	839	624	576
Cash and cash equivalents	67	17	24
Other	13	19	8
Total interest income	5,722	4,385	3,853
Interest expense:			
Deposits	654	95	276
Borrowings	234	176	315
Total interest expense	888	271	591
Net interest income	4,834	4,114	3,262
Provision for credit losses	107	59	157
Net interest income after provision for credit losses	4,727	4,055	3,105
Noninterest income:			
Investment management fees	612	554	395
Brokerage and investment fees	118	74	51
Insurance fees	21	19	12
Trust fees	28	25	19
Foreign exchange fee income	98	88	50
Deposit fees	28	27	24
Loan and related fees	39	33	28
Income from investments in life insurance	82	85	53
Other income, net	5	15	23
Total noninterest income	1,031	920	655
Noninterest expense:			
Salaries and employee benefits	2,235	2,003	1,495
Information systems	468	362	299
Occupancy	285	254	221
Professional fees	108	101	66
Advertising and marketing	71	64	43
FDIC assessments	66	52	44
Other expenses	384	311	258
Total noninterest expense	3,617	3,147	2,426
Income before provision for income taxes	2,141	1,828	1,334
Provision for income taxes	476	350	270
Net income	1,665	1,478	1,064
Dividends on preferred stock	158	99	59
Net income available to common shareholders	$1,507	$1,379	$1,005
Net income	$1,665	$1,478	$1,064
Other comprehensive income (loss), net of tax:			
Net unrealized gain (loss) on debt securities available-for-sale	(300)	(54)	19
Other	—	—	(1)
Other comprehensive income (loss)	(300)	(54)	18
Comprehensive income	$1,365	$1,424	$1,082
Basic earnings per common share	$ 8.32	$ 7.78	$ 5.85
Diluted earnings per common share	$ 8.25	$ 7.68	$ 5.81

See accompanying notes to consolidated financial statements.

FIRST REPUBLIC BANK

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(in millions, 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, 2019	**168,620,708**	**$ 1,145**	**$ 2**	**$ 4,215**	**$ 4,485**	**$ 5**	**$ 9,852**
Cumulative adjustments from adoption of new accounting guidance	—	—	—	—	(5)	—	(5)
Balance at January 1, 2020	**168,620,708**	**1,145**	**2**	**4,215**	**4,480**	**5**	**9,847**
Net income	—	—	—	—	1,064	—	1,064
Other comprehensive income	—	—	—	—	—	18	18
Issuance of preferred stock, net	—	500	—	(8)	—	—	492
Redemption of preferred stock	—	(100)	—	—	—	—	(100)
Issuance of common stock, net	4,225,000	—	—	516	—	—	516
Stock compensation expense	—	—	—	149	—	—	149
Net issuance of common stock under stock plans	1,278,154	—	—	(37)	—	—	(37)
Dividends on preferred stock (see Note 17)	—	—	—	—	(59)	—	(59)
Dividends on common stock ($0.79/share)	—	—	—	—	(139)	—	(139)
Balance at December 31, 2020	**174,123,862**	**1,545**	**2**	**4,835**	**5,346**	**23**	**11,751**
Net income	—	—	—	—	1,478	—	1,478
Other comprehensive loss	—	—	—	—	—	(54)	(54)
Issuance of preferred stock, net	—	2,238	—	(48)	—	—	2,190
Redemption of preferred stock	—	(150)	—	—	—	—	(150)
Issuance of common stock, net	4,312,500	—	—	775	—	—	775
Stock compensation expense	—	—	—	240	—	—	240
Net issuance of common stock under stock plans	1,037,089	—	—	(77)	—	—	(77)
Dividends on preferred stock (see Note 17)	—	—	—	—	(99)	—	(99)
Dividends on common stock ($0.86/share)	—	—	—	—	(156)	—	(156)
Balance at December 31, 2021	**179,473,451**	**3,633**	**2**	**5,725**	**6,569**	**(31)**	**15,898**
Net income	—	—	—	—	1,665	—	1,665
Other comprehensive loss	—	—	—	—	—	(300)	(300)
Issuance of common stock, net	2,587,500	—	—	402	—	—	402
Stock compensation expense	—	—	—	199	—	—	199
Net issuance of common stock under stock plans	1,188,621	—	—	(70)	—	—	(70)
Dividends on preferred stock (see Note 17)	—	—	—	—	(158)	—	(158)
Dividends on common stock ($1.03/share)	—	—	—	—	(190)	—	(190)
Balance at December 31, 2022	**183,249,572**	**$ 3,633**	**$ 2**	**$ 6,256**	**$ 7,886**	**$ (331)**	**$ 17,446**

See accompanying notes to consolidated financial statements.

FIRST REPUBLIC BANK

CONSOLIDATED STATEMENTS OF CASH FLOWS

($ in millions)	Year Ended December 31, 2022	2021	2020
Operating Activities:			
Net income	$ 1,665	$ 1,478	$ 1,064
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for credit losses	107	59	157
Depreciation, amortization and accretion, net	192	184	166
Deferred income taxes	20	(79)	(71)
Noncash cost of stock plans	199	240	149
Other, net	7	36	(9)
Loans originated or purchased for sale	(920)	(1,180)	(1,170)
Proceeds from sales and principal repayments of loans held for sale	5	81	317
Net change in other assets	(642)	(57)	(57)
Net change in other liabilities	(381)	442	(15)
Net Cash Provided by Operating Activities	252	1,204	531
Investing Activities:			
Loan originations, net of principal collections	(31,884)	(22,302)	(21,983)
Loans purchased	(53)	(97)	(759)
Loans sold	—	—	954
Purchases of debt securities available-for-sale	—	(1,107)	(388)
Proceeds from sales and paydowns of debt securities available-for-sale	520	663	618
Purchases of debt securities held-to-maturity	(7,212)	(7,848)	(2,517)
Proceeds from sales, calls and paydowns of debt securities held-to-maturity	1,174	2,149	3,108
Purchases of FHLB stock and other investments	(518)	(12)	(127)
Proceeds from FHLB stock redemptions and other investments	248	244	140
Purchases of investments in life insurance	(718)	(518)	(583)
Net change in tax credit and other investments	(175)	(132)	(169)
Additions to premises, equipment and leasehold improvements, net	(197)	(198)	(149)
Other, net	10	15	—
Net Cash Used for Investing Activities	(38,805)	(29,143)	(21,855)
Financing Activities:			
Net change in deposits	20,105	41,394	24,795
Net change in short-term borrowings	6,700	—	(800)
Proceeds from long-term debt	3,600	—	6,955
Repayment of long-term debt	(500)	(8,055)	(6,900)
Net proceeds from issuance of preferred stock	—	2,190	492
Net proceeds from issuance of common stock	402	775	516
Redemption of preferred stock	—	(150)	(100)
Proceeds from ESPP and stock options exercised	34	29	24
Payments of employee taxes withheld from share-based awards	(104)	(106)	(62)
Dividends on preferred stock	(158)	(99)	(59)
Dividends on common stock	(190)	(155)	(139)
Other, net	—	(32)	(3)
Net Cash Provided by Financing Activities	29,889	35,791	24,719
Increase (Decrease) in Cash and Cash Equivalents	(8,664)	7,852	3,395
Cash and Cash Equivalents at the Beginning of Period	12,947	5,095	1,700
Cash and Cash Equivalents at the End of Period	$ 4,283	$ 12,947	$ 5,095
Supplemental Disclosure of Cash Flow Items:			
Cash paid:			
Interest	$ 802	$ 272	$ 615
Income taxes	$ 304	$ 255	$ 157
Non-cash activities:			
Transfer of loans to (from) held for sale	$ —	$ (1)	$ 964
Transfer of loans held for sale to debt securities	$ 917	$ 1,118	$ 837

See accompanying 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 37 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. 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. First Republic specializes in delivering exceptional, relationship-based service and provides a complete line of products, including residential, commercial and personal loans, deposit services, and private wealth management, including investment, brokerage, insurance, trust and foreign exchange services. 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; Jackson, Wyoming; and Bellevue, Washington.

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. A substantial majority 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 previously, also through 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 2022

During the year ended December 31, 2022, the Bank adopted the following ASUs issued by the FASB:

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

Under ASC 848, entities can elect not to apply certain modification accounting requirements to contracts affected by reference rate reform if 1) the contract references LIBOR or another reference rate expected to be discontinued, 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 solely related to the replacement of the reference rate. Contract modifications meeting such criteria can be accounted for as a continuation of the existing contract. The optional relief under ASC 848 was initially available for contracts modified through December 31, 2022. Due to the intended cessation of commonly used tenors of USD LIBOR in 2023, subsequent guidance was issued in December 2022 to defer the expiration of the optional relief to December 31, 2024.

The Bank initially adopted this guidance effective January 1, 2022, and subsequently effective December 21, 2022. This guidance was adopted prospectively with no impact to the Bank's consolidated financial statements. As a result, all eligible loan contract modifications made prior to December 31, 2024 are accounted for as continuations of the existing loan contracts.

The Bank previously had loans that determined the amount of interest by reference to COFI, which the FHLB of San Francisco ceased calculating and publishing on January 31, 2022. In February 2022, the Bank transitioned outstanding loans indexed to COFI to COFI Repl Index, which is based on Federal COFI plus/minus a spread adjustment equal to the five-year historical median spread between COFI and Federal COFI.

The Bank has loans that reference certain tenors of USD LIBOR, which will cease to be published or cease to be representative after June 30, 2023. In July 2023, the Bank will transition outstanding loans indexed to USD LIBOR to Consumer Spread-Adjusted Term SOFR or Institutional Spread-Adjusted Term SOFR, as applicable. Consumer and Institutional Spread-Adjusted Term SOFR are based on term Secured Overnight Financing Rate plus a spread adjustment equal to the five-year historical median spread between LIBOR and SOFR. For Consumer Spread-Adjusted Term SOFR, a portion of the spread adjustment will be phased in over the course of one year.

Debt Securities

Debt securities that the Bank may not hold until maturity are classified as securities available-for-sale and reported at fair value. 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.

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

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. 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.

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.

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 any 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 into noninterest income over the commitment period using a straight-line methodology.

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.

Loan modifications that provide concessions to borrowers in financial difficulty are reported as TDRs. The Bank generally grants concessions in TDRs by reducing the interest rate or deferring payments. 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.

Allowance for Credit Losses on Loans and Unfunded Loan Commitments

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.

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 credit loss expense is recorded as provision for unfunded loan commitments within provision for credit losses in the consolidated statements of income. 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.

Equity Securities

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.

Nonmarketable equity securities do not have readily determinable fair values. These securities are accounted for under the proportional amortization method (refer to "—Tax credit Investments" above), equity method, cost method, or measurement alternative. With exception of tax credit investments, all nonmarketable equity securities are presented within "Other assets" on the consolidated balance sheets.

Equity method is applied when the Bank has the ability to exert significant influence over the investee. These investments are recorded at cost and adjusted for the Bank's share of the investee's earnings and losses, less any impairment. Cost method is applied to FHLB stock, which is recorded at cost and subsequently adjusted for any impairment. Measurement alternative method is applied to all remaining nonmarketable equity securities. These securities are recorded at cost less impairment, adjusted for observable price changes of the same or similar securities of the same issuer. All realized and unrealized gains and losses from nonmarketable equity securities, including impairment losses, are recognized in noninterest income.

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 recognizes a sale only when consideration is received and control is transferred to the buyer.

The Bank retains MSRs on substantially all loans sold. MSRs 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 within "Other noninterest income" on the consolidated statements of income. MSRs are subsequently reported at the lower of amortized cost or fair value and are presented within "Other assets" on the consolidated balance sheets. MSRs are amortized in proportion to and over the period of estimated net servicing income, with amortization presented in "Other noninterest income" on the consolidated statements of income.

At least quarterly, the Bank evaluates MSRs for potential impairment based on their current fair value, actual prepayment experience and other market factors. For this evaluation, the Bank stratifies the loans serviced 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. 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. If the Bank determines that a portion of the valuation allowance is unrecoverable, the Bank records a direct write-down by reducing both the amortized cost of MSRs for a stratum and the related valuation allowance.

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.

Goodwill and Intangible Assets

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.

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. 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 for the amount by which the reporting unit's carrying amount exceeds its fair value, including any deferred tax adjustment for tax deductible goodwill.

Intangible assets with finite lives are amortized on an accelerated basis over their useful lives, and are evaluated for impairment whenever circumstances indicate that the carrying amount may not be recoverable. Intangible assets with indefinite lives are evaluated for impairment annually, and on an interim basis if events or changes in circumstances indicate that their fair value is less than the carrying amount. For all intangible assets, an impairment loss is recognized if the determined fair value is less than the carrying amount.

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. Lease renewal options are included when measuring the lease liability if the Bank is reasonably certain to exercise the option during the lease term. 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 sheets are operating leases. 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 not included in the straight-line lease expense are expensed as incurred.

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. 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, if any, to reduce DTAs to the amount that is more likely than not to be realized.

An uncertain tax position that meets the "more likely than not" recognition threshold is measured to determine the amount of benefits to recognize. The uncertain tax position is measured as the largest amount of benefit that is greater than 50% likely of being realized upon settlement. Tax benefits not meeting the Bank's realization criteria represent unrecognized tax benefits. Interest and penalties are recognized as a component of provision for income taxes.

The Bank files a consolidated U.S. tax return and separate state and local tax returns.

Share-Based Compensation

The Bank's share-based awards, including RSUs and PSUs, 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 the service period required in order for the awards to vest. The requisite service period is generally the vesting period of the awards. For awards with performance conditions, the amount of compensation expense the Bank recognizes over the requisite service period is based on the actual or estimated achievement of the performance condition. 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.

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. Fair value represents 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. Fair value is based on an exit price notion that maximizes the use of observable input and minimizes the use of unobservable inputs. Certain assets and liabilities are recorded at fair value on a recurring basis. Additionally, the Bank may be required to record other assets at fair value on a nonrecurring basis, which typically involve application of lower-of-cost-or-market accounting or adjustments of individual assets including impairments.

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.

Refer to Note 15, “Fair Value Measurements,” for additional discussion of the valuation methodologies used in estimating the fair value of assets and liabilities.

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.

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.

The following table presents information related to cash and cash equivalents:

($ in millions)	December 31, 2022	December 31, 2021
Cash and due from banks	$ 485	$ 368
Interest-bearing deposits with banks	3,798	12,579
Total cash and cash equivalents	$4,283	$12,947

Note 3. Investment Securities and Allowance for Credit Losses

The following table presents information related to available-for-sale debt securities:

($ in millions)	Available-for-sale Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Allowance for Credit Losses	Fair Value
At December 31, 2022					
Agency residential MBS	$ 2,584	$ 1	$ (425)	$ —	$2,160
Other residential MBS	11	—	(1)	—	10
Agency commercial MBS	1,175	—	(45)	—	1,130
Securities of U.S. states and political subdivisions—taxable	47	—	—	—	47
Total	$ 3,817	$ 1	$ (471)	$ —	$3,347
At December 31, 2021					
Agency residential MBS	$ 1,878	$ 2	$ (51)	$ —	$1,829
Other residential MBS	15	—	—	—	15
Agency commercial MBS	1,485	6	(1)	—	1,490
Securities of U.S. states and political subdivisions—taxable	47	—	—	—	47
Total	$ 3,425	$ 8	$ (52)	$ —	$3,381

The following table presents information related to held-to-maturity debt securities:

($ in millions)	Held-to-maturity Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Allowance for Credit Losses	Amortized Cost, Net of Allowance
At December 31, 2022						
U.S. Government-sponsored agency securities	$ 165	$ —	$ (27)	$ 138	$ —	$ 165
Agency residential MBS	2,003	—	(250)	1,753	—	2,003
Other residential MBS	8	—	(1)	7	—	8
Agency commercial MBS	5,331	—	(668)	4,663	—	5,331
Securities of U.S. states and political subdivisions:						
Tax-exempt municipal securities	17,644	65	(2,944)	14,765	(9)	17,635
Tax-exempt nonprofit debentures	69	—	—	69	—	69
Taxable municipal securities	1,726	2	(493)	1,235	(1)	1,725
Corporate debt securities	1,413	—	(456)	957	(1)	1,412
Total	$ 28,359	$ 67	$ (4,839)	$ 23,587	$ (11)	$ 28,348
At December 31, 2021						
U.S. Government-sponsored agency securities	$ 100	$ —	$ (3)	$ 97	$ —	$ 100
Agency residential MBS	1,380	13	(15)	1,378	—	1,380
Other residential MBS	9	—	—	9	—	9
Agency commercial MBS	2,719	35	(12)	2,742	—	2,719
Securities of U.S. states and political subdivisions:						
Tax-exempt municipal securities	15,011	997	(21)	15,987	(8)	15,003
Tax-exempt nonprofit debentures	72	1	—	73	—	72
Taxable municipal securities	1,632	66	(1)	1,697	(1)	1,631
Corporate debt securities	1,378	62	(1)	1,439	—	1,378
Total	$ 22,301	$ 1,174	$ (53)	$ 23,422	$ (9)	$ 22,292

The following table presents information related to equity securities measured at fair value:

($ in millions)	December 31, 2022	2021
Equity securities (fair value):		
Mutual funds and marketable equity securities	$ 24	$ 28

The components of amortized cost for debt securities exclude interest receivable since the Bank elected to present interest receivable within other assets on the consolidated balance sheets. The following table presents interest receivable on debt securities:

($ in millions)	December 31, 2022	2021
Interest receivable on debt securities available-for-sale	$ 6	$ 4
Interest receivable on debt securities held-to-maturity	$ 215	$ 177

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 BB (Ba), which reflect the strong overall credit quality of the investment portfolio. 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.
- BB (Ba) rated securities reflect slightly more than moderate credit risk of an obligor, given that economic uncertainties may result in deterioration of the obligor's ability to meet commitments in the future.

The following tables present the amortized cost of debt securities held-to-maturity by credit quality indicator:

	Held-to-maturity					
($ in millions)	**AAA (Aaa)**	**AA (Aa)**	**A (A)**	**BBB (Baa)**	**BB (Ba)**	**Total**
At December 31, 2022						
U.S. Government-sponsored agency securities	$ —	$ 165	$ —	$ —	$ —	$ 165
Agency residential MBS	—	2,003	—	—	—	2,003
Other residential MBS	8	—	—	—	—	8
Agency commercial MBS	—	5,331	—	—	—	5,331
Securities of U.S. states and political subdivisions:						
Tax-exempt municipal securities	5,001	12,492	151	—	—	17,644
Tax-exempt nonprofit debentures	—	—	—	46	23	69
Taxable municipal securities	618	1,108	—	—	—	1,726
Corporate debt securities	551	862	—	—	—	1,413
Total	$ 6,178	$21,961	$151	$ 46	$ 23	$28,359

($ in millions)	Held-to-maturity AAA (Aaa)	AA (Aa)	A (A)	BBB (Baa)	Total
At December 31, 2021					
U.S. Government-sponsored agency securities	$ —	$ 100	$ —	$ —	$ 100
Agency residential MBS	—	1,380	—	—	1,380
Other residential MBS	9	—	—	—	9
Agency commercial MBS	—	2,719	—	—	2,719
Securities of U.S. states and political subdivisions:					
Tax-exempt municipal securities	4,201	10,585	225	—	15,011
Tax-exempt nonprofit debentures	—	—	—	72	72
Taxable municipal securities	562	1,070	—	—	1,632
Corporate debt securities	525	853	—	—	1,378
Total	$ 5,297	$16,707	$225	$ 72	$22,301

The carrying value of held-to-maturity debt securities that were internally rated and translated to a corresponding external grade, all of which were tax-exempt nonprofit debentures, was $69 million and $72 million at December 31, 2022 and 2021, respectively.

Aging and Nonaccrual

As of both December 31, 2022 and 2021, 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:

	Available-for-sale						
	Less than 12 months		12 months or more		Total		
($ in millions)	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Total Number of Securities
At December 31, 2022							
Agency residential MBS	$ (425)	$2,100	$ —	$ —	$ (425)	$2,100	1,100
Other residential MBS	(1)	10	—	—	(1)	10	9
Agency commercial MBS	(45)	1,130	—	—	(45)	1,130	42
Total	$ (471)	$3,240	$ —	$ —	$ (471)	$3,240	1,151
At December 31, 2021							
Agency residential MBS	$ (26)	$1,113	$ (25)	$627	$ (51)	$1,740	555
Agency commercial MBS	(1)	863	—	—	(1)	863	12
Total	$ (27)	$1,976	$ (25)	$627	$ (52)	$2,603	567

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. 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. Therefore, no ACL was recognized on available-for-sale debt securities as of both December 31, 2022 and 2021.

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) and corporate debt securities is determined by expert judgment, which is based on historical ratings-based average probabilities of default and industry average LGD to determine expected credit losses over the life of the securities.

The following table presents the activity in the ACL on held-to-maturity debt securities:

	Allowance for Credit Losses		
	Held-to-maturity		
($ in millions)	Balance at Beginning of Period	Provision	Balance at End of Period
At or for the Year Ended December 31, 2022			
Securities of U.S. states and political subdivisions:			
Tax-exempt municipal securities	$ 8	$ 1	$ 9
Taxable municipal securities	1	—	1
Corporate debt securities	—	1	1
Total	$ 9	$ 2	$ 11
At or for the Year Ended December 31, 2021			
Securities of U.S. states and political subdivisions:			
Tax-exempt municipal securities	$ 7	$ 1	$ 8
Taxable municipal securities	—	1	1
Total	$ 7	$ 2	$ 9
At or for the Year Ended December 31, 2020 (1)			
Securities of U.S. states and political subdivisions:			
Tax-exempt municipal securities	$ 5	$ 2	$ 7

(1) The beginning balance represents the CECL transition adjustment, which increased the ACL by $5 million upon adoption of CECL.

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, 2022, the carrying value of investment securities pledged was $9.14 billion, of which $9.12 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 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 millions)	Year Ended December 31, 2022	2021	2020
Sales proceeds:			
Debt securities available-for-sale:	$ —	$ —	$ 71
Debt securities held-to-maturity:	$ —	$ —	$ 35

The following table presents gains and losses on investment securities:

($ in millions)	Year Ended December 31, 2022	2021	2020
Debt securities held-to-maturity:			
Gross realized gains on sales	$ —	$ —	$ 3
Equity securities (fair value):			
Net change in fair value	(6)	1	1
Total gain (loss) on investment securities [1]	$ (6)	$ 1	$ 4

[1] Included in other income, net on the consolidated statements of income and comprehensive income.

The following table presents interest income on investment securities:

($ in millions)	Year Ended December 31, 2022	2021	2020
Interest income on tax-exempt securities	$ 520	$ 428	$ 385
Interest income on taxable securities	319	196	191
Total	$ 839	$ 624	$ 576

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 millions)	Amount	Within 1 Year	After 1 Through 5 Years	After 5 Through 10 Years	After 10 Years
At December 31, 2022					
Amortized cost:					
Agency residential MBS	$ 2,584	$ —	$ 0	$ —	$ 2,584
Other residential MBS	11	—	—	—	11
Agency commercial MBS	1,175	—	30	964	181
Securities of U.S. states and political subdivisions— taxable	47	—	—	—	47
Total	$ 3,817	$ —	$ 30	$ 964	$ 2,823
Fair value:					
Agency residential MBS	$ 2,160	$ —	$ 0	$ —	$ 2,160
Other residential MBS	10	—	—	—	10
Agency commercial MBS	1,130	—	30	937	163
Securities of U.S. states and political subdivisions— taxable	47	—	—	—	47
Total	$ 3,347	$ —	$ 30	$ 937	$ 2,380
At December 31, 2021					
Amortized cost:					
Agency residential MBS	$ 1,878	$ —	$ 1	$ —	$ 1,877
Other residential MBS	15	—	—	—	15
Agency commercial MBS	1,485	—	82	1,144	259
Securities of U.S. states and political subdivisions— taxable	47	—	—	—	47
Total	$ 3,425	$ —	$ 83	$ 1,144	$ 2,198
Fair value:					
Agency residential MBS	$ 1,829	$ —	$ 1	$ —	$ 1,828
Other residential MBS	15	—	—	—	15
Agency commercial MBS	1,490	—	82	1,144	264
Securities of U.S. states and political subdivisions— taxable	47	—	—	—	47
Total	$ 3,381	$ —	$ 83	$ 1,144	$ 2,154

	Held-to-maturity				
($ in millions)	Amount	Within 1 Year	After 1 Through 5 Years	After 5 Through 10 Years	After 10 Years
At December 31, 2022					
Amortized cost, net of allowance:					
U.S. Government-sponsored agency securities	$ 165	$ —	$ 65	$ 50	$ 50
Agency residential MBS	2,003	—	3	—	2,000
Other residential MBS	8	—	—	—	8
Agency commercial MBS	5,331	—	—	—	5,331
Securities of U.S. states and political subdivisions:					
Tax-exempt municipal securities	17,635	340	371	116	16,808
Tax-exempt nonprofit debentures	69	—	—	—	69
Taxable municipal securities	1,725	—	—	—	1,725
Corporate debt securities	1,412	—	—	—	1,412
Total	$28,348	$ 340	$ 439	$ 166	$27,403
At December 31, 2021					
Amortized cost, net of allowance:					
U.S. Government-sponsored agency securities	$ 100	$ —	$ —	$ —	$ 100
Agency residential MBS	1,380	—	3	—	1,377
Other residential MBS	9	—	—	—	9
Agency commercial MBS	2,719	—	109	—	2,610
Securities of U.S. states and political subdivisions:					
Tax-exempt municipal securities	15,003	262	647	106	13,988
Tax-exempt nonprofit debentures	72	—	—	—	72
Taxable municipal securities	1,631	—	—	—	1,631
Corporate debt securities	1,378	—	—	—	1,378
Total	$22,292	$ 262	$ 759	$ 106	$21,165

Note 4. Loans and Allowance for Credit Losses

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. The following table presents loans held for investment by portfolio segment and class, and the ACL:

($ in millions)	December 31, 2022	December 31, 2021
Residential real estate		
Single family	$ 98,768	$ 76,793
Home equity lines of credit	2,775	2,584
Single family construction	1,217	993
Total residential real estate	102,760	80,370
Income property		
Multifamily	21,588	15,966
Commercial real estate	10,830	8,531
Multifamily/commercial construction	2,139	1,927
Total income property	34,557	26,424
Business		
Capital call lines of credit	9,988	10,999
Tax-exempt	3,713	3,680
Other business	5,072	3,961
PPP	20	545
Total business	18,793	19,185
Other		
Stock secured	4,553	3,435
Other secured	3,191	2,457
Unsecured	3,014	3,085
Total other	10,758	8,977
Total loans held for investment	166,868	134,956
Less: Allowance for credit losses	(784)	(694)
Loans, net	$166,084	$134,262

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 December 31, 2022 and 2021, 52% and 51%, respectively, of the total loan portfolio was secured by California real estate. At December 31, 2022 and 2021, 59% and 61%, 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, 2022, the Bank had pledged $101.0 billion of loans to secure borrowings of $14.0 billion from the FHLB, although only $20.2 billion of collateral was required in connection with the outstanding FHLB advances.

The components of amortized cost for loans exclude interest receivable since the Bank elected to present interest receivable within other assets on the consolidated balance sheets. The following table presents interest receivable on loans held for investment:

($ in millions)	December 31, 2022	December 31, 2021
Interest receivable	$ 485	$ 319

Aging and Nonaccrual

The following tables present an aging analysis of loans:

($ in millions)	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, 2022						
Residential real estate						
Single family	$ 8	$ 7	$ 38	$ 53	$ 98,715	$ 98,768
Home equity lines of credit	1	—	5	6	2,769	2,775
Single family construction	12	—	—	12	1,205	1,217
Total residential real estate	21	7	43	71	102,689	102,760
Income property						
Multifamily	—	—	—	—	21,588	21,588
Commercial real estate	—	—	—	—	10,830	10,830
Multifamily/commercial construction	2	1	—	3	2,136	2,139
Total income property	2	1	—	3	34,554	34,557
Business						
Capital call lines of credit	—	—	—	—	9,988	9,988
Tax-exempt	—	—	—	—	3,713	3,713
Other business	—	—	—	—	5,072	5,072
PPP	—	—	—	—	20	20
Total business	—	—	—	—	18,793	18,793
Other						
Stock secured	—	—	—	—	4,553	4,553
Other secured	—	—	—	—	3,191	3,191
Unsecured	1	—	—	1	3,013	3,014
Total other	1	—	—	1	10,757	10,758
Total	$ 24	$ 8	$ 43	$ 75	$166,793	$166,868

($ in millions)	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, 2021						
Residential real estate						
Single family	$ 9	$ 10	$ 48	$ 67	$ 76,726	$ 76,793
Home equity lines of credit	2	—	19	21	2,563	2,584
Single family construction	—	—	—	—	993	993
Total residential real estate	11	10	67	88	80,282	80,370
Income property						
Multifamily	—	—	2	2	15,964	15,966
Commercial real estate	—	1	5	6	8,525	8,531
Multifamily/commercial construction	—	—	—	—	1,927	1,927
Total income property	—	1	7	8	26,416	26,424
Business						
Capital call lines of credit	—	—	—	—	10,999	10,999
Tax-exempt	—	—	—	—	3,680	3,680
Other business	—	—	—	—	3,961	3,961
PPP	1	14	—	15	530	545
Total business	1	14	—	15	19,170	19,185
Other						
Stock secured	—	—	—	—	3,435	3,435
Other secured	—	—	—	—	2,457	2,457
Unsecured	—	—	—	—	3,085	3,085
Total other	—	—	—	—	8,977	8,977
Total	$ 12	$ 25	$ 74	$ 111	$134,845	$134,956

The table below presents information on loans 90 days or more past due and accruing and loans on nonaccrual status:

	December 31,					
	2022			2021		
		Nonaccrual			Nonaccrual	
($ in millions)	90 Days or More Past Due and Accruing	Total	Total Without an Allowance	90 Days or More Past Due and Accruing	Total	Total Without an Allowance
Residential real estate						
Single family	$ —	$ 91	$ 79	$ —	$ 92	$ 76
Home equity lines of credit	—	14	13	—	26	24
Total residential real estate	—	105	92	—	118	100
Income property						
Multifamily	—	—	—	—	2	2
Commercial real estate	—	—	—	—	7	7
Multifamily/commercial construction	—	—	—	—	9	9
Total income property	—	—	—	—	18	18
Business						
Other business	—	1	1	—	1	1
Other						
Unsecured	—	3	1	—	2	—
Total	$ —	$109	$ 94	$ —	$139	$ 119

The interest income related to nonaccrual loans is presented in the following table:

($ in millions)	Year Ended December 31, 2022	2021	2020
Interest income recognized	$ —	$ —	$ —
Interest income under original terms	$ 4	$ 4	$ 5

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, 2022 and 2021, the Bank did not have any residential real estate owned (acquired through foreclosure).

The carrying value of residential mortgage loans in the process of foreclosure was $8 million and $6 million at December 31, 2022 and 2021, respectively.

Vintage

The following tables present 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 tables.

($ in millions)	2022	2021	2020	2019	2018	Prior	Revolving lines of credit	Revolving lines of credit converted to term	Total
At December 31, 2022									
Residential real estate									
Single family:									
Pass	$31,392	$27,032	$17,994	$8,612	$3,783	$9,791	$ —	$ —	$ 98,604
Special mention	—	—	6	5	9	32	—	—	52
Substandard	1	11	1	1	6	92	—	—	112
	31,393	27,043	18,001	8,618	3,798	9,915	—	—	98,768
Home equity lines of credit:									
Pass	—	—	—	—	—	—	2,704	54	2,758
Special mention	—	—	—	—	—	—	1	—	1
Substandard	—	—	—	—	—	—	7	9	16
	—	—	—	—	—	—	2,712	63	2,775
Single family construction:									
Pass	407	418	246	91	31	9	—	—	1,202
Special mention	—	2	—	—	—	2	—	—	4
Substandard	—	—	—	11	—	—	—	—	11
	407	420	246	102	31	11	—	—	1,217
Total residential real estate	31,800	27,463	18,247	8,720	3,829	9,926	2,712	63	102,760
Income property									
Multifamily:									
Pass	7,940	4,493	3,207	1,988	1,267	2,128	460	—	21,483
Special mention	60	—	—	—	—	17	—	—	77
Substandard	—	—	—	6	—	22	—	—	28
	8,000	4,493	3,207	1,994	1,267	2,167	460	—	21,588
Commercial real estate:									
Pass	3,485	2,004	1,329	1,047	782	1,841	242	—	10,730
Special mention	14	—	—	—	20	26	10	—	70
Substandard	—	2	5	4	—	19	—	—	30
	3,499	2,006	1,334	1,051	802	1,886	252	—	10,830
Multifamily/commercial construction:									
Pass	632	649	520	220	94	—	18	—	2,133
Special mention	1	—	—	3	1	—	—	—	5
Substandard	—	1	—	—	—	—	—	—	1
	633	650	520	223	95	—	18	—	2,139
Total income property	12,132	7,149	5,061	3,268	2,164	4,053	730	—	34,557

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($ in millions)	2022	2021	2020	2019	2018	Prior	Revolving lines of credit	Revolving lines of credit converted to term	Total
At December 31, 2022									
Business									
Capital call lines of credit:									
Pass	13	—	—	—	—	—	9,975	—	9,988
Tax-exempt:									
Pass	268	673	1,029	120	198	1,357	—	—	3,645
Special mention	—	4	6	—	—	53	—	—	63
Substandard	—	—	—	—	—	5	—	—	5
	268	677	1,035	120	198	1,415	—	—	3,713
Other business:									
Pass	1,491	894	555	235	232	261	1,374	—	5,042
Special mention	2	2	—	—	4	4	—	—	12
Substandard	—	—	—	1	—	14	3	—	18
	1,493	896	555	236	236	279	1,377	—	5,072
PPP:									
Pass	1	16	3	—	—	—	—	—	20
Total business	1,775	1,589	1,593	356	434	1,694	11,352	—	18,793
Other									
Stock secured:									
Pass	148	3	20	1	—	—	4,381	—	4,553
Other secured:									
Pass	188	256	152	111	39	52	2,373	19	3,190
Substandard	—	1	—	—	—	—	—	—	1
	188	257	152	111	39	52	2,373	19	3,191
Unsecured:									
Pass	150	131	241	367	342	426	1,198	147	3,002
Special mention	—	2	—	—	—	—	3	—	5
Substandard	—	1	1	1	1	2	—	—	6
Doubtful	—	—	—	—	—	1	—	—	1
	150	134	242	368	343	429	1,201	147	3,014
Total other	486	394	414	480	382	481	7,955	166	10,758
Total	$46,193	$36,595	$25,315	$12,824	$6,809	$16,154	$ 22,749	$ 229	$166,868

($ in millions)	2021	2020	2019	2018	2017	Prior	Revolving lines of credit	Revolving lines of credit converted to term	Total
At December 31, 2021									
Residential real estate									
Single family:									
Pass	$28,679	$20,002	$10,107	$4,672	$5,178	$7,949	$ —	$ —	$76,587
Special mention	—	3	12	13	23	39	—	—	90
Substandard	7	1	1	6	26	75	—	—	116
	28,686	20,006	10,120	4,691	5,227	8,063	—	—	76,793
Home equity lines of credit:									
Pass	—	—	—	—	—	—	2,489	57	2,546
Special mention	—	—	—	—	—	—	7	1	8
Substandard	—	—	—	—	—	—	16	14	30
	—	—	—	—	—	—	2,512	72	2,584
Single family construction:									
Pass	376	275	217	92	31	2	—	—	993
Total residential real estate	29,062	20,281	10,337	4,783	5,258	8,065	2,512	72	80,370
Income property									
Multifamily:									
Pass	4,803	3,567	2,412	1,647	1,243	1,854	330	—	15,856
Special mention	—	—	30	—	1	—	—	—	31
Substandard	35	—	8	14	—	22	—	—	79
	4,838	3,567	2,450	1,661	1,244	1,876	330	—	15,966
Commercial real estate:									
Pass	2,096	1,498	1,147	924	671	1,711	251	—	8,298
Special mention	2	5	14	26	16	66	—	—	129
Substandard	20	1	39	5	18	19	2	—	104
	2,118	1,504	1,200	955	705	1,796	253	—	8,531
Multifamily/commercial construction:									
Pass	449	725	507	178	23	8	9	—	1,899
Special mention	19	—	—	—	—	—	—	—	19
Substandard	—	—	—	9	—	—	—	—	9
	468	725	507	187	23	8	9	—	1,927
Total income property	7,424	5,796	4,157	2,803	1,972	3,680	592	—	26,424

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($ in millions)	2021	2020	2019	2018	2017	Prior	Revolving lines of credit	Revolving lines of credit converted to term	Total
At December 31, 2021									
Business									
Capital call lines of credit:									
Pass	—	—	3	—	—	—	10,996	—	10,999
Tax-exempt:									
Pass	626	990	164	223	371	1,290	—	—	3,664
Special mention	—	6	7	—	—	3	—	—	16
	626	996	171	223	371	1,293	—	—	3,680
Other business:									
Pass	849	739	355	307	123	271	1,277	—	3,921
Special mention	2	2	2	—	11	11	3	—	31
Substandard	—	—	3	—	2	4	—	—	9
	851	741	360	307	136	286	1,280	—	3,961
PPP:									
Pass	462	83	—	—	—	—	—	—	545
Total business	1,939	1,820	534	530	507	1,579	12,276	—	19,185
Other									
Stock secured:									
Pass	2	20	1	3	—	—	3,409	—	3,435
Other secured:									
Pass	225	197	173	100	35	49	1,641	36	2,456
Substandard	—	—	1	—	—	—	—	—	1
	225	197	174	100	35	49	1,641	36	2,457
Unsecured:									
Pass	333	356	491	456	285	261	891	—	3,073
Substandard	1	1	1	3	2	2	1	—	11
Doubtful	—	—	—	—	—	—	1	—	1
	334	357	492	459	287	263	893	—	3,085
Total other	561	574	667	562	322	312	5,943	36	8,977
Total	$38,986	$28,471	$15,695	$8,678	$8,059	$13,636	$ 21,323	$ 108	$134,956

The following table presents revolving lines of credit that converted to term loans without an additional credit decision:

($ in millions)	Year Ended December 31, 2022	2021	2020
Residential real estate			
Home equity lines of credit	$ 24	$ 32	$ 19
Other			
Other secured	40	28	14
Unsecured	148	—	—
Total other	188	28	14
Total	$ 212	$ 60	$ 33

Allowance for Credit Losses on Loans

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, 2022, the total ACL on loans was $784 million, and $752 million was the portion of the ACL attributable to loans with similar risk characteristics, compared to a total ACL on loans of $694 million as of December 31, 2021, of which $653 million was attributable to loans with similar risk characteristics. The following is a discussion of the models, expert judgment, qualitative factors and individual assessments the Bank uses to determine its ACL.

Quantitative Models

For residential real estate, income property, and tax-exempt business loans, expected credit losses are determined by PD/LGD models. For other business, other secured and certain unsecured loans, expected credit losses are determined by loss rate models. Prior to the fourth quarter of 2022, the expected credit losses for other business loans were determined by a PD/LGD model.

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 EFC 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. The macroeconomic forecast scenario selected by the EFC as of December 31, 2022 forecasts a depreciation in residential real estate, modest appreciation in apartment and commercial real estate prices, and higher interest rates during the reasonable and supportable period. Compared to the scenario as of December 31, 2021, the current scenario forecasts a slow down in residential and commercial real estate price growth and a higher interest rate environment due to the continued tightening of monetary policy.

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. 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 business, 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 12-year historical period. The historical period used by the Bank is reviewed at least annually.

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 loss rates derived using a more adverse macroeconomic forecast scenario than the scenario used for the quantitative models and the Bank's historical loss rates, as well as 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. The following discussion describes these 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, 2022, the Bank's collateral dependent loans were fully collateralized and primarily secured by residential real estate.

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: For criticized or classified loans (that are not collateral dependent or TDRs), 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 (Reversal of Provision) for Credit Losses and Changes in the Allowance for Credit Losses

The following table presents information related to the provision (reversal of provision) for credit losses:

($ in millions)	Year Ended December 31, 2022	2021	2020
Provision (reversal of provision) for credit losses:			
Debt securities held-to-maturity [1]	$ 2	$ 2	$ 2
Loans	93	61	143
Unfunded loan commitments	12	(4)	12
Total provision	$ 107	$ 59	$ 157

[1] Refer to Note 3, "Investment Securities and Allowance for Credit Losses," for disclosures of the ACL on held-to-maturity debt securities.

The following tables present the changes in the ACL on loans:

	At or for the Year Ended December 31, 2022				
($ in millions)	Balance at Beginning of Period	Provision (Reversal of provision)	Charge-offs	Recoveries	Balance at End of Period
Residential real estate					
Single family	$ 157	$ 48	$ (2)	$ —	$ 203
Home equity lines of credit	4	2	(1)	—	5
Single family construction	5	3	—	—	8
Total residential real estate	166	53	(3)	—	216
Income property					
Multifamily	121	66	—	—	187
Commercial real estate	82	14	—	—	96
Multifamily/commercial construction	24	1	—	—	25
Total income property	227	81	—	—	308
Business					
Capital call lines of credit	123	(62)	—	—	61
Tax-exempt	47	4	—	—	51
Other business	78	21	—	—	99
PPP	—	—	—	—	—
Total business	248	(37)	—	—	211
Other					
Stock secured	—	—	—	—	—
Other secured	8	2	—	—	10
Unsecured	45	(6)	(1)	1	39
Total other	53	(4)	(1)	1	49
Total	$ 694	$ 93	$ (4)	$ 1	$ 784

($ in millions)	At or for the Year Ended December 31, 2021				
	Balance at Beginning of Period	Provision (Reversal of provision)	Charge-offs	Recoveries	Balance at End of Period
Residential real estate					
Single family	$ 137	$ 21	$ (1)	$ —	$ 157
Home equity lines of credit	8	(4)	—	—	4
Single family construction	4	1	—	—	5
Total residential real estate	149	18	(1)	—	166
Income property					
Multifamily	121	—	—	—	121
Commercial real estate	71	11	—	—	82
Multifamily/commercial construction	36	(12)	—	—	24
Total income property	228	(1)	—	—	227
Business					
Capital call lines of credit	90	33	—	—	123
Tax-exempt	40	7	—	—	47
Other business	68	9	—	1	78
PPP	—	—	—	—	—
Total business	198	49	—	1	248
Other					
Stock secured	—	—	—	—	—
Other secured	8	—	—	—	8
Unsecured	52	(5)	(2)	—	45
Total other	60	(5)	(2)	—	53
Total	$ 635	$ 61	$ (3)	$ 1	$ 694

($ in millions)	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	$ 102	$ 37	$ (2)	$ —	$ 137
Home equity lines of credit	9	(1)	—	—	8
Single family construction	5	(1)	(1)	1	4
Total residential real estate	116	35	(3)	1	149
Income property					
Multifamily	111	10	—	—	121
Commercial real estate	55	16	—	—	71
Multifamily/commercial construction	24	12	—	—	36
Total income property	190	38	—	—	228
Business					
Capital call lines of credit	67	23	—	—	90
Tax-exempt	30	10	—	—	40
Other business	56	12	—	—	68
PPP	—	—	—	—	—
Total business	153	45	—	—	198
Other					
Stock secured	—	—	—	—	—
Other secured	3	5	—	—	8
Unsecured	32	20	(1)	1	52
Total other	35	25	(1)	1	60
Total	$ 494	$ 143	$ (4)	$ 2	$ 635

[1] Includes the CECL transition adjustment, which decreased the total ACL on loans by $2 million upon adoption of CECL.

As of December 31, 2022, the total ACL on loans was $784 million, compared to $694 million as of December 31, 2021. The increase in the total ACL on loans as of December 31, 2022 was primarily due to loan growth and a change in economic conditions and outlook, partially offset by the decrease in ACL on capital call lines of credit due to the declines in balances and expected utilization.

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. The loss rate represents expected credit losses over the life of the loans. The ACL on unfunded loan commitments increased during the year ended December 31, 2022 primarily due to an increase in unfunded commitments. The following table presents the changes in the ACL on unfunded loan commitments:

	At or for the Year Ended December 31,		
($ in millions)	**2022**	**2021**	**2020**
Balance at beginning of period [1]	$ 24	$ 28	$ 16
Provision (reversal of provision)	12	(4)	12
Balance at end of period	$ 36	$ 24	$ 28

[1] For the year ended December 31, 2020, the beginning balance includes the CECL transition adjustment, which increased the ACL by $4 million upon adoption of CECL.

Troubled Debt Restructurings

The following table presents loans modified in TDRs:

	At December 31, 2022			At December 31, 2021		
($ in millions)	**Restructured - Nonaccrual**	**Restructured - Accruing**	**Total**	**Restructured - Nonaccrual**	**Restructured - Accruing**	**Total**
Residential real estate						
Single family	$ 29	$ 6	$ 35	$ 39	$ 8	$ 47
Home equity lines of credit	4	—	4	11	—	11
Total residential real estate	33	6	39	50	8	58
Income property						
Commercial real estate	—	6	6	1	5	6
Business						
Other business	1	—	1	1	—	1
Other						
Unsecured	1	—	1	—	—	—
Total	$ 35	$ 12	$ 47	$ 52	$ 13	$ 65

During the years ended December 31, 2022, 2021, and 2020, TDRs were primarily modified through extensions of the maturity date, payment deferrals, repayment plans and interest rate reductions. The following table presents loans modified in TDRs during the periods indicated:

($ in millions)	Year Ended December 31, 2022	2021	2020
Residential real estate			
Single family	$ 9	$ 6	$ 43
Home equity lines of credit	2	1	12
Total residential real estate	11	7	55
Income property			
Commercial real estate	—	—	1
Multifamily/commercial construction	—	—	58
Total income property	—	—	59
Business			
Other business	—	—	5
Other			
Unsecured	1	—	—
Total	$ 12	$ 7	$119

No loans defaulted that were modified during the twelve months ended December 31, 2022. TDRs that were modified during the twelve months ended December 31, 2021 and 2020, for which there was a subsequent payment default totaled $1 million and $66 million, respectively. These TDRs consisted of single family loans and multifamily/commercial construction loans. The ACL on these loans was individually assessed at the loan level and was based on the collateral dependent methodology.

Note 5. Mortgage Banking Activities

The Bank retains the MSRs on substantially all loans sold. The following table presents information related to loans serviced for others, MSRs, and net loan servicing fees:

($ in millions)	At or for the Year Ended December 31, 2022	2021	2020
Loans serviced for others:			
Balance at beginning of period	$ 4,677	$ 7,094	$ 9,298
Loans sold	5	80	1,238
Repayments	(1,171)	(2,497)	(3,045)
Loans purchased	(51)	—	(397)
Loans repurchased	(1)	—	—
Balance at end of period	$ 3,459	$ 4,677	$ 7,094
MSRs:			
Balance at beginning of period	$ 16	$ 26	$ 42
Additions due to new loans sold	—	1	8
Amortization expense	(5)	(9)	(13)
Provision for valuation allowance	—	(2)	(9)
Reductions due to purchases	—	—	(2)
Balance at end of period [(1)]	$ 11	$ 16	$ 26
Loan servicing fees, net:			
Contractually specified servicing fees	$ 10	$ 15	$ 21
MSR amortization expense	(5)	(9)	(13)
MSR net provision for valuation allowance	—	(2)	(9)
Total [(2)]	$ 5	$ 4	$ (1)

(1) Included in other assets on the consolidated balance sheets.
(2) Included in other income, net on the consolidated statements of income and comprehensive income.

Refer to Note 11, "Goodwill and Intangible Assets," for disclosures of the gross carrying value, accumulated amortization, valuation allowance and carrying value 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. The discussion below provides information about our variable interests. Since the Bank is not the primary beneficiary of any of its VIEs, it does not consolidate these interests.

The Bank has a variable interest in a securitization trust related to its retention of a 5% interest in the investment securities issued in a securitization of single family loans. The retained investments 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.

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.

The Bank has variable interests in other investments, which are accounted for under the equity method.

In addition, the Bank has a variable interest related to its reimbursement obligation to Freddie Mac for certain losses from the securitization of multifamily loans.

All assets and liabilities recorded associated with transactions with VIEs are not consolidated. The following table summarizes the assets and liabilities recorded on the consolidated balance sheets associated with transactions with VIEs:

	Unconsolidated VIEs	
	December 31,	
($ in millions)	2022	2021
Assets:		
Debt securities	$ 8	$ 10
Tax credit investments	1,383	1,220
Other investments	117	77
Total Assets	1,508	1,307
Liabilities:		
Unfunded commitments—tax credit investments	715	540
Unfunded commitments—other investments	53	18
Total Liabilities	768	558
Net Assets	$ 740	$ 749

The Bank's exposure to loss with respect to VIEs that are not consolidated includes the Bank's investment in these assets of $1.5 billion and $1.3 billion at December 31, 2022 and 2021, respectively. The Bank's exposure to loss related to the reimbursement obligation is 12% of the multifamily loans securitized in 2018, or $30 million at both December 31, 2022 and 2021.

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 following table presents the balances of the Bank's tax credit investments and related unfunded commitments:

	December 31,	
($ in millions)	2022	2021
Tax credit investments	$1,383	$1,220
Unfunded commitments—tax credit investments [1]	$ 715	$ 540

[1] Unfunded commitments—tax credit investments are included in other liabilities on the consolidated balance sheets.

The unfunded commitments related to tax credit investments are estimated to be funded as follows:

($ in millions)	December 31, 2022
Unfunded commitments—tax credit investments:	
2023	$ 256
2024	281
2025	95
2026	14
2027	5
2028 and thereafter	64
Total	$ 715

The following table presents other information related to the Bank's tax credit investments:

	Year Ended December 31,		
($ in millions)	2022	2021	2020
Tax credits and other tax benefits recognized	$ 207	$ 207	$ 187
Tax credit amortization expense included in provision for income taxes	$ 172	$ 174	$ 156

The Bank did not recognize any impairment losses on tax credit investments during 2022, 2021 or 2020.

Note 8. Other Assets

Other assets are summarized in the table below:

	December 31,	
($ in millions)	2022	2021
Lease assets	$1,440	$1,332
DTAs	666	561
Interest receivable	708	501
FHLB stock, at cost	379	115
Other	1,841	1,122
Total	$5,034	$3,631

Dividend income on FHLB stock was $13 million in 2022, compared to $19 million in 2021 and $24 million in 2020.

Refer to Note 9, "Leases," for further discussion on lease assets.

Note 9. Leases

The Bank primarily leases corporate, preferred banking and wealth management offices, as well as equipment, with remaining lease terms ranging from 1 year to 19 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. From time to time, the Bank may also enter into subleases with third parties for certain leased real estate properties.

The following tables present information related to leases:

($ in millions)	December 31, 2022	December 31, 2021
Supplemental balance sheet information:		
Lease assets [1]	$ 1,440	$ 1,332
Lease liabilities [1]	$ 1,552	$ 1,405
Weighted average remaining lease term	10.9 years	11.4 years
Weighted average discount rate	2.4%	2.2%

[1] Lease assets are included in other assets and lease liabilities are included in other liabilities on the consolidated balance sheets.

($ in millions)	Year Ended December 31, 2022	2021	2020
Components of net lease cost:			
Operating lease cost	$184	$164	$131
Less: sublease income	(6)	(1)	(1)
Net lease cost [1]	$178	$163	$130

[1] Included in occupancy expense on the consolidated statements of income and comprehensive income.

($ in millions)	Year Ended December 31, 2022	2021	2020
Supplemental cash flow information:			
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash outflows from operating leases	$143	$135	$119
Non-cash activity related to lease assets:			
Lease assets obtained from new operating lease liabilities	$256	$513	$274

The following table presents the future maturities of lease liabilities:

($ in millions)	December 31, 2022 [1]
Lease liabilities maturing in:	
2023	$ 184
2024	186
2025	174
2026	165
2027	155
2028 and thereafter	967
Total	1,831
Less: imputed interest	(233)
Less: tenant improvement receivable	(46)
Total lease liabilities	$ 1,552

[1] Excludes $376 million of undiscounted minimum lease payments for leases signed but not yet commenced. These leases will commence at various dates from 2023 through 2025 with lease terms ranging from 3 to 21 years.

Note 10. Premises, Equipment and Leasehold Improvements

Premises, equipment and leasehold improvements are summarized in the table below:

	December 31, 2022			December 31, 2021		
($ in millions)	Cost	Accumulated Depreciation and Amortization	Carrying Value	Cost	Accumulated Depreciation and Amortization	Carrying Value
Land, buildings and improvements	$ 4	$ (2)	$ 2	$ 4	$ (2)	$ 2
Furniture and equipment	335	(243)	92	303	(208)	95
Leasehold improvements	452	(268)	184	403	(235)	168
Software	563	(358)	205	462	(273)	189
Premises, equipment and leasehold improvements, net	$1,354	$ (871)	$ 483	$1,172	$ (718)	$ 454

Depreciation and amortization expense was $165 million in 2022, $145 million in 2021 and $125 million in 2020.

Refer to Note 9, "Leases," for further discussion on 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:

($ in millions)	December 31, 2022 Gross Carrying Value	2022 Accumulated Amortization	2022 Carrying Value	2021 Gross Carrying Value	2021 Accumulated Amortization	2021 Carrying Value
Intangible assets:						
Customer relationship and core deposit intangibles	$ 221	$ (218)	$ 3	$ 221	$ (214)	$ 7
Trade name	43	—	43	43	—	43
Intangible assets	$ 264	$ (218)	46	$ 264	$ (214)	50
Goodwill			172			172
Total			$ 218			$ 222

The following table presents the Bank's MSRs:

($ in millions)	December 31, 2022 Gross Carrying Value	2022 Accumulated Amortization	2022 Valuation Allowance	2022 Carrying Value	2021 Gross Carrying Value	2021 Accumulated Amortization	2021 Valuation Allowance	2021 Carrying Value
MSRs	$ 129	$ (118)	$ —	$ 11	$ 131	$ (115)	$ —	$ 16

Refer to Note 5, "Mortgage Banking Activities," for further information about MSRs.

Note 12. Deposits

Total deposits were $176.4 billion at December 31, 2022, and were comprised of noninterest-bearing deposits of $62.6 billion and interest-bearing deposits of $113.9 billion. At December 31, 2021, total deposits were $156.3 billion, and consisted of noninterest-bearing deposits of $70.8 billion and interest-bearing deposits of $85.5 billion. Total deposits included $5.3 billion of brokered deposits at December 31, 2022, compared to $851 million at December 31, 2021. The weighted average contractual rate paid on brokered deposits was 3.81% and 0.02% at December 31, 2022 and 2021, respectively.

At December 31, 2022, the annual contractual maturities of the Bank's CDs were as follows:

($ in millions)	December 31, 2022
CDs maturing in:	
2023	$ 24,496
2024	596
2025	75
2026	23
2027	20
2028 and thereafter	2
Total	$ 25,212

At December 31, 2022, CDs that met or exceeded the FDIC insurance limit of $250,000 totaled $15.2 billion.

The following table presents interest expense on deposits:

($ in millions)	Year Ended December 31, 2022	2021	2020
Interest-bearing checking	$ 88	$ 6	$ 16
Money market checking	217	25	56
Money market savings and passbooks	165	25	32
CDs	184	39	172
Total	$654	$ 95	$276

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 Value		Interest Expense		
	December 31,		Year Ended December 31,		
($ in millions)	2022	2021	2022	2021	2020
Short-term borrowings:					
Federal funds purchased	$ —	$ —	$ 7	$ —	$ 1
FHLB advances	6,700	—	108	—	4
Total [(1)]	6,700	—	115	—	5
Long-term debt:					
FHLB advances	7,300	3,700	67	115	250
Senior notes [(2)]	500	998	16	24	23
Subordinated notes [(2)]	779	779	36	37	37
Total long-term debt	8,579	5,477	119	176	310
Total borrowings	$15,279	$5,477	$ 234	$ 176	$ 315

(1) At December 31, 2022, the weighted average interest rate of our short-term borrowings, which consisted of short-term FHLB advances, was 4.40% At December 31, 2021, the Bank had no short-term borrowings.

(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, 2022, the Bank had $6.7 billion of short-term FHLB advances. At December 31, 2022, all of the long-term FHLB advances were fixed-rate for a specific term. At December 31, 2022, the contractual maturities and weighted average contractual rates of long-term FHLB advances were as follows:

($ in millions)	December 31, 2022 Amount	Rate
FHLB advances maturing in:		
2023	$ 2,525	1.80%
2024	3,375	3.18%
2025	1,000	1.59%
2026	400	0.65%
2027	—	—%
2028 and thereafter	—	—%
Total	$ 7,300	2.35%

The Bank had no prepaid FHLB advances for the year ended December 31, 2022, compared to $8.1 billion for the year ended December 31, 2021 and $5.8 billion for the year ended December 31, 2020. Prepayment penalties for FHLB advances, which are included in other noninterest expense, totaled $32 million and $27 million for the years ended December 31, 2021 and 2020, respectively.

In connection with outstanding FHLB advances, at December 31, 2022 and 2021, the Bank owned FHLB stock of $379 million and $115 million, respectively. At both December 31, 2022 and 2021, 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-to-floating rate senior notes, and fixed-rate subordinated notes as of December 31, 2022. The 2.500% Senior Notes due 2022 with a principal balance of $500 million were redeemed in the second quarter of 2022, and, therefore, were no longer outstanding as of December 31, 2022.

	December 31, 2022				
($ in millions)	Principal Balance	Carrying Value [1]	Rate	Optional Redemption Date [2]	Maturity Date [3]
Senior notes:					
Fixed-to-floating rate, issued February 2020	$ 500	$ 500	1.912% [4]	February 12, 2023	February 12, 2024
Subordinated notes:					
Fixed-rate, issued August 2016	$ 400	$ 389	4.375%	February 1, 2046	August 1, 2046
Fixed-rate, issued February 2017	$ 400	$ 390	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.

Refer to Note 26, "Subsequent Events" for information regarding the Bank's redemption of its 1.912% Senior Fixed-to-Floating Rate Notes due 2024 with an outstanding principal balance of $500 million on February 12, 2023.

Available Borrowing Capacity

Our unused, available borrowing capacity at the FHLB and the Federal Reserve Bank discount window at December 31, 2022 was $55.2 billion and $6.7 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 following table include foreign exchange contracts with both the client and the financial institution counterparties:

	December 31,					
	2022			2021		
		Fair Value			Fair Value	
($ in millions)	Notional or Contractual Amount	Derivative Assets [1]	Derivative Liabilities [1]	Notional or Contractual Amount	Derivative Assets [1]	Derivative Liabilities [1]
Foreign exchange contracts	$ 7,149	$ 95	$ 76	$ 5,505	$ 37	$ 31

[1] Derivative assets are included in other assets and derivative liabilities are 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 millions)	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, 2022								
Derivative assets:								
Foreign exchange contracts	$ 95	$ 45	$ 50	$ —	$ 50	$ 50	$ —	$ —
Derivative liabilities:								
Foreign exchange contracts	$ 76	$ 25	$ 51	$ —	$ 51	$ 50	$ 1	$ —
December 31, 2021								
Derivative assets:								
Foreign exchange contracts	$ 37	$ 8	$ 29	$ —	$ 29	$ 10	$ 17	$ 2
Derivative liabilities:								
Foreign exchange contracts	$ 31	$ 21	$ 10	$ —	$ 10	$ 10	$ —	$ —

(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

Refer to Note 1, "Summary of Significant Accounting Policies," for additional information about assets and liabilities measured at fair value.

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: For most debt securities, the Bank uses quoted prices obtained through third-party valuation sources. Valuation techniques are generally 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. For level 3 taxable municipal securities, the Bank estimates the fair value using discounted expected future cash flows and applies a liquidity risk yield premium to account for liquidity considerations since the bond is not publicly traded. The weighted average liquidity risk yield premium, which is a significant unobservable input, was 50 bps as of both December 31, 2022 and 2021. 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. In addition, 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.

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. The Bank uses current market prices to determine the fair value of foreign exchange contracts.

The following tables present the balances of assets and liabilities measured at fair value on a recurring basis:

($ in millions)	Level 1	Level 2	Level 3	Total
December 31, 2022				
Assets:				
Debt securities available-for-sale:				
Agency residential MBS	$ —	$2,160	$ —	$2,160
Other residential MBS	—	10	—	10
Agency commercial MBS	—	1,130	—	1,130
Securities of U.S. states and political subdivisions—taxable	—	—	47	47
Equity securities (fair value):				
Mutual funds and marketable equity securities	24	—	—	24
Derivative assets	—	95	—	95
Total	$ 24	$3,395	$ 47	$3,466
Liabilities:				
Derivative liabilities	$ —	$ 76	$ —	$ 76
December 31, 2021				
Assets:				
Debt securities available-for-sale:				
Agency residential MBS	$ —	$1,829	$ —	$1,829
Other residential MBS	—	15	—	15
Agency commercial MBS	—	1,490	—	1,490
Securities of U.S. states and political subdivisions—taxable	—	—	47	47
Equity securities (fair value):				
Mutual funds and marketable equity securities	28	—	—	28
Derivative assets	—	37	—	37
Total	$ 28	$3,371	$ 47	$3,446
Liabilities:				
Derivative liabilities	$ —	$ 31	$ —	$ 31

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, 2022, 2021 and 2020.

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.

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.

The following table presents the assets measured at fair value on a nonrecurring basis that were held on the balance sheet:

($ in millions)	Level 1	Level 2	Level 3	Total
December 31, 2022				
Loans	$ —	$ —	$ 9	$ 9
December 31, 2021				
Loans	$ —	$ —	$ 8	$ 8
MSRs	—	—	11	11
Total	$ —	$ —	$ 19	$ 19

The following table presents net losses related to nonrecurring fair value measurements. The net losses relate to assets held on the balance sheet at each respective period end.

($ in millions)	Year Ended December 31, 2022	2021	2020
Loans	$ (1)	$ (1)	$ (2)
MSRs	—	(2)	(9)
Total	$ (1)	$ (3)	$ (11)

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:

	December 31, 2022				
	Carrying Value	Fair Value			
($ in millions)		Total	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	$ 4,283	$ 4,283	$4,283	$ —	$ —
Debt securities held-to-maturity, net: [1]					
U.S. Government-sponsored agency securities	165	138	—	138	—
Agency residential MBS	2,003	1,753	—	1,753	—
Other residential MBS	8	7	—	7	—
Agency commercial MBS	5,331	4,663	—	4,663	—
Securities of U.S. states and political subdivisions:					
Tax-exempt municipal securities	17,635	14,765	—	14,743	22
Tax-exempt nonprofit debentures	69	69	—	—	69
Taxable municipal securities	1,725	1,235	—	1,235	—
Corporate debt securities	1,412	957	—	957	—
Loans, net: [1]					
Real estate secured mortgages	136,793	117,520	—	84,347	33,173
Other loans	29,291	26,405	—	—	26,405
Other assets:					
MSRs	11	26	—	—	26
FHLB stock	379	379	—	—	379
Liabilities:					
Deposits:					
CDs	$ 25,212	$ 25,202	$ —	$ —	$25,202
Short-term FHLB advances	6,700	6,704	—	6,704	—
Long-term FHLB advances	7,300	7,050	—	7,050	—
Senior notes	500	498	—	498	—
Subordinated notes	779	621	—	621	—

[1] Carrying value is presented net of ACL.

($ in millions)	December 31, 2021				
	Carrying Value	Fair Value			
		Total	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	$ 12,947	$ 12,947	$12,947	$ —	$ —
Debt securities held-to-maturity, net: [(1)]					
U.S. Government-sponsored agency securities	100	97	—	97	—
Agency residential MBS	1,380	1,378	—	1,378	—
Other residential MBS	9	9	—	9	—
Agency commercial MBS	2,719	2,742	—	2,742	—
Securities of U.S. states and political subdivisions:					
Tax-exempt municipal securities	15,003	15,987	—	15,959	28
Tax-exempt nonprofit debentures	72	73	—	—	73
Taxable municipal securities	1,631	1,697	—	1,697	—
Corporate debt securities	1,378	1,439	—	1,439	—
Loans, net: [(1)]					
Real estate secured mortgages	106,401	103,269	—	74,708	28,561
Other loans	27,861	26,000	—	—	26,000
Other assets:					
MSRs	16	20	—	—	20
FHLB stock	115	115	—	—	115
Liabilities:					
Deposits:					
CDs	$ 7,357	$ 7,376	$ —	$ —	$ 7,376
Long-term FHLB advances	3,700	3,687	—	3,687	—
Senior notes	998	1,007	—	1,007	—
Subordinated notes	779	983	—	983	—

(1) Carrying value 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 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 commitments to disburse additional funds on existing loans and lines of credit are legally binding lending commitments, which are available for funding as long as there is no violation of any of several credit or other established conditions. Standby letters of credit are conditional lending commitments issued by the Bank to guarantee the performance of a client to a third party. Commitments to disburse additional funds and standby letters of credit generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since these commitments may expire without being drawn, the total commitment amounts do not necessarily represent future cash requirements. At December 31, 2022 and 2021, the Bank had

commitments to disburse additional funds on existing loans and lines of credit of $49.8 billion and $38.5 billion, respectively, and had undisbursed standby letters of credit of $1.2 billion and $1.1 billion, 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 million, or 12%, of the multifamily loans securitized. There was no liability for estimated losses related to this reimbursement obligation at December 31, 2022 and 2021, and the Bank has experienced no cumulative losses through December 31, 2022. The remaining unpaid principal balance of multifamily loans securitized was $43 million and $71 million at December 31, 2022 and 2021, 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, 2022, the Bank was authorized to issue 25,000,000 shares of preferred stock, par value $0.01 per share, of which 3,632,500 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 and carrying value for each series of the Bank's preferred stock:

		December 31,					
		2022			2021		
(in millions, except share amounts)	Dividend Rate	Shares Authorized	Shares Issued and Outstanding	Carrying Value	Shares Authorized	Shares Issued and Outstanding	Carrying Value
Series H Preferred Stock	5.125%	200,000	200,000	$ 200	200,000	200,000	$ 200
Series I Preferred Stock	5.50%	300,000	300,000	300	300,000	300,000	300
Series J Preferred Stock	4.70%	400,000	395,000	395	400,000	395,000	395
Series K Preferred Stock	4.125%	500,000	500,000	500	500,000	500,000	500
Series L Preferred Stock	4.250%	747,500	747,500	748	747,500	747,500	748
Series M Preferred Stock	4.000%	750,000	750,000	750	750,000	750,000	750
Series N Preferred Stock	4.500%	747,500	740,000	740	747,500	740,000	740
Total			3,632,500	$ 3,633		3,632,500	$ 3,633

The Bank's preferred stock activity for 2020 through 2022 was as follows:

On September 16, 2020, the Series K Preferred Stock was issued. Net proceeds, after underwriting discounts and expenses, were $492 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 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 million plus all accrued and unpaid dividends as of the Series F Redemption Date.

On February 9, 2021, the Series L Preferred Stock was issued. Net proceeds, after underwriting discounts and expenses, were $733 million. The public offering consisted of 29,900,000 depositary shares, each representing a 1/40th interest in a share of the Series L Preferred Stock, at a public offering price of $25.00 per depositary share. Dividends on the Series L Preferred Stock commenced on April 30, 2021. The Series L Preferred Stock is redeemable at the option of the Bank, subject to all applicable regulatory approvals, on or after March 30, 2026.

On March 30, 2021 (the "Series G Redemption Date"), the Bank redeemed all of the outstanding shares of its Series G Preferred Stock. All 6,000,000 depositary shares, representing a 1/40th interest in the Series G Preferred Stock, were redeemed at a redemption price of $25.00 per share, representing an aggregate amount of $150 million plus all accrued and unpaid dividends as of the Series G Redemption Date.

On July 21, 2021, the Series M Preferred Stock was issued. Net proceeds, after underwriting discounts and expenses, were $736 million. The public offering consisted of 30,000,000 depositary shares, each representing a 1/40th interest in a share of the Series M Preferred Stock, at a public offering price of $25.00 per depositary share. Dividends on the Series M Preferred Stock commenced on October 30, 2021. The Series M Preferred Stock is redeemable at the option of the Bank, subject to all applicable regulatory approvals, on or after August 30, 2026.

On November 29, 2021, the Series N Preferred Stock was issued. Net proceeds, after underwriting discounts and estimated expenses, were approximately $721 million. The public offering consisted of 29,600,000 depositary shares, each representing a 1/40th interest in a share of the Series N Preferred Stock, at a public offering price of $25.00 per depositary share. Dividends on the Series N Preferred Stock commenced on January 30, 2022. The Series N Preferred Stock is redeemable at the option of the Bank, subject to all applicable regulatory approvals, on or after December 31, 2026.

Dividends on each series of preferred stock are payable quarterly in arrears when, as and if declared by the Board (or a duly authorized committee of the Board). If declared, dividends on the Series H Preferred Stock and Series I Preferred Stock are paid each March 30, June 30, September 30 and December 30. Additionally, dividends on the Series J Preferred Stock, Series K Preferred Stock, Series L Preferred Stock, Series M Preferred Stock and Series N Preferred Stock are paid each January 30, April 30, July 30 and October 30.

The following table presents dividends on the Bank's preferred stock:

	Year Ended December 31,					
	2022		2021		2020	
(in millions, except per share amounts)	**Total**	**Per Share**	**Total**	**Per Share**	**Total**	**Per Share**
Series F Preferred Stock	$ —	$ —	$ —	$ —	$ 4	$ 44.35
Series G Preferred Stock	—	—	2	$ 13.75	8	$ 55.00
Series H Preferred Stock	10	$ 51.25	10	$ 51.25	10	$ 51.25
Series I Preferred Stock	16	$ 55.00	16	$ 55.00	17	$ 55.00
Series J Preferred Stock	18	$ 47.00	19	$ 47.00	17	$ 42.45
Series K Preferred Stock	21	$ 41.25	21	$ 41.25	3	$ 5.04
Series L Preferred Stock	32	$ 42.50	23	$ 30.81	—	$ —
Series M Preferred Stock	30	$ 40.00	8	$ 11.00	—	$ —
Series N Preferred Stock	31	$ 41.38	—	$ —	—	$ —
Total	$158		$ 99		$ 59	

Note 18. Common Stock and Stock Plans

Common Stock

At December 31, 2022, the Bank was authorized to issue 400,000,000 shares of common stock, par value $0.01 per share. At December 31, 2022 and 2021, the Bank had 183,249,572 and 179,473,451 shares issued and outstanding, respectively. During 2022, the Bank sold 2,587,500 shares of common stock in underwritten offerings, which added $402 million to common equity. Refer to Note 26, "Subsequent Events," for information regarding the Bank's offering of 2,875,000 new shares of common stock in February 2023.

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 2022, 2021 and 2020 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 1,675,267 shares have been sold to employees under the ESPP since its inception in 2011, and 324,733 shares remained authorized for future issuance at December 31, 2022. In 2022, a total of 260,390 shares were sold to employees, compared to 181,227 in 2021 and 255,833 in 2020. For 2022, 2021 and 2020, compensation expense for the ESPP was $6 million, $5 million and $4 million, respectively.

First Republic Bank 2017 Omnibus Award Plan

In May 2022, the Bank amended the 2017 Omnibus Award Plan to increase the number of shares reserved for issuance by an additional 3,500,000 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.

Under the Bank's 2017 Omnibus Award Plan, 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, 2022, the Bank had 3,983,121 shares reserved for future stock award grants.

Restricted Stock Units

The Bank grants 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	Number of Awards	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual
Nonvested awards as of December 31, 2019	2,596,064	$ 102.09		367,009	$ 94.17	
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
Granted	1,108,831	$ 189.13		217,005	$ 173.29	
Vested	(945,086)	$ 103.89		(203,631)	$ 105.26	
Canceled or forfeited	(76,303)	$ 131.43		(4,923)	$ 120.54	
Nonvested awards as of December 31, 2021	3,019,706	$ 137.32	3.2 years	471,506	$ 137.93	1.5 years
Granted	1,157,374	$ 146.59		232,657	$ 156.13	
Vested	(1,035,657)	$ 124.38		(260,051)	$ 127.40	
Canceled or forfeited	(247,626)	$ 140.43		(4,077)	$ 136.07	
Nonvested awards as of December 31, 2022	2,893,797	$ 145.39	3.2 years	440,035	$ 153.79	1.7 years

The total fair value of Performance RSUs that vested in 2022, 2021 and 2020 was $146 million, $184 million and $100 million, respectively. The total fair value of Time RSUs that vested in 2022, 2021 and 2020 was $42 million, $37 million and $18 million, respectively. No cash consideration was received in connection with the vesting of these awards.

Performance Share Units

The Bank grants 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, 2019	988,742	$ 99.45	
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
Granted	247,400	$ 195.18	
Vested	(250,582)	$ 91.93	
Canceled or forfeited	—	—	
Nonvested awards as of December 31, 2021	1,022,225	$ 129.17	1.6 years
Granted	193,077	$ 161.77	
Vested	(370,775)	$ 111.12	
Canceled or forfeited	(101,150)	$ 128.44	
Nonvested awards as of December 31, 2022	743,377	$ 146.74	1.3 years

The total fair value of PSUs that vested during 2022, 2021 and 2020 was $47 million, $46 million and $30 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,					
	2022		2021		2020	
($ in millions)	Expense Recognized	Related Tax Benefit	Expense Recognized	Related Tax Benefit	Expense Recognized	Related Tax Benefit
RSUs	$ 158	$ 44	$ 176	$ 49	$ 108	$ 31
PSUs	35	2	59	8	37	7
Total	$ 193	$ 46	$ 235	$ 57	$ 145	$ 38

	At December 31, 2022	
($ in millions)	Unrecognized Expense	Weighted Average Expected Recognition Period
RSUs	$ 377	3.1 years
PSUs	43	1.7 years
Total	$ 420	

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,					
	2022		2021		2020	
($ in millions)	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	—	$ —	17,850	$ 1	301,903	$ 8
RSUs	1,295,708	9	1,148,717	30	1,035,971	7
PSUs	370,775	2	250,582	7	272,585	2
Total	1,666,483	$ 11	1,417,149	$ 38	1,610,459	$ 17

At December 31, 2022 and 2021, there were no stock options outstanding. At December 31, 2020, there were 17,850 stock options outstanding. The intrinsic value of all options exercised was $0 million in 2022, compared to $3 million in 2021 and $28 million in 2020. 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.

Note 19. Accumulated Other Comprehensive Income (Loss)

The following table presents the changes in the components of accumulated other comprehensive income (loss), which relate to debt securities available-for-sale:

	At or for the Year Ended December 31,		
($ in millions)	2022	2021	2020
Beginning balance	**$ (31)**	**$ 23**	**$ 5**
Net unrealized gain (loss) on debt securities available-for-sale	(426)	(77)	27
Related tax effect [1]	126	23	(8)
Amortization of unrealized gain on debt securities transferred from available-for-sale to held-to-maturity [2]	—	—	(1)
Other comprehensive income (loss)	(300)	(54)	18
Ending balance	**$(331)**	**$ (31)**	**$ 23**

(1) Included in provision for income taxes on the consolidated statements of income and comprehensive income.
(2) 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 $41 million, $35 million and $30 million for 2022, 2021 and 2020, 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 a wide array of investment vehicles within the plan. Deferred amounts will be distributed to employees in accordance with their elections. At December 31, 2022 and 2021, the deferred compensation liability was $142 million and $118 million, respectively.

Since inception, the Bank has not offered any other employee benefit plans and, at December 31, 2022, 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:

	Year Ended December 31,		
($ in millions)	**2022**	**2021**	**2020**
Federal:			
Current	$ 74	$ 59	$ 43
Deferred	23	(42)	(58)
Subtotal	97	17	(15)
State:			
Current	210	185	145
Deferred	(3)	(26)	(16)
Subtotal	207	159	129
Tax credit investment amortization	172	174	156
Total provision for income taxes	$ 476	$ 350	$ 270

The following table presents a reconciliation between the effective tax rate and the federal statutory rate:

	Year Ended December 31,		
Effective Tax Rate	**2022**	**2021**	**2020**
Statutory rate	21.0%	21.0%	21.0%
State taxes, net of federal benefits	8.1	8.2	8.3
Tax-exempt income	(5.3)	(5.8)	(6.7)
Investments in life insurance	(0.8)	(1.0)	(0.8)
Tax credits	(9.4)	(10.5)	(13.2)
Tax credit investment amortization	8.0	9.5	11.7
Excess tax benefits—stock awards	(0.5)	(2.1)	(1.3)
FDIC assessments	0.7	0.6	0.7
Research and development tax credit adjustments	(0.2)	(1.1)	—
Other, net	0.6	0.3	0.5
Effective tax rate	22.2%	19.1%	20.2%

The following table presents the tax effects of temporary differences that give rise to our DTAs and DTLs:

($ in millions)	December 31, 2022	December 31, 2021
DTAs:		
Lease liabilities	$ 483	$ 440
Excess tax credit carryforwards	171	219
Allowance for credit losses	245	215
Accrued compensation	170	164
Stock award expense	39	43
Depreciation	48	42
Loan discounts	13	14
State income taxes	27	27
Amortization of research and development expenditures	42	—
Unrealized losses on debt securities available-for-sale	139	13
Other DTAs	8	11
Gross DTAs	1,385	1,188
DTLs:		
Lease assets	(445)	(409)
Deferred loan costs	(246)	(194)
Other intangible assets	(21)	(15)
MSRs	(2)	(5)
Other DTLs	(5)	(4)
Gross DTLs	(719)	(627)
Net DTAs	$ 666	$ 561

Gross DTAs represent recoverable taxes. At December 31, 2022, the Bank had excess tax credit carryforwards of $171 million, which expire in varying amounts between 2040 and 2042. At December 31, 2022 and 2021, 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.

At December 31, 2022 and 2021, the Bank had accrued net current taxes receivable of $17 million and 1 million, respectively.

The table below presents a reconciliation of the beginning and ending amount of unrecognized tax benefits:

($ in millions)	At or for the Year Ended December 31, 2022	At or for the Year Ended December 31, 2021
Balance at beginning of period	$ 11	$ 0
Additions:		
Tax positions related to the current year	4	2
Tax positions related to prior years	2	9
Balance at end of period	$ 17	$ 11

If recognized, the entire amount of unrecognized tax benefits at December 31, 2022 would favorably affect the Bank's consolidated effective tax rate.

For the years ended December 31, 2022, 2021 and 2020, the amount of interest and penalties (recorded in provision for income taxes) was insignificant.

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 2021 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. Stock awards that are anti-dilutive are not included in the calculation of diluted EPS.

	Year Ended December 31,		
(in millions, except per share amounts)	**2022**	**2021**	**2020**
Basic EPS:			
Net income	$1,665	$1,478	$1,064
Less: Dividends on preferred stock	158	99	59
Net income available to common shareholders	$1,507	$1,379	$1,005
Weighted average common shares outstanding	181	177	172
Basic EPS	$ 8.32	$ 7.78	$ 5.85
Diluted EPS:			
Net income available to common shareholders	$1,507	$1,379	$1,005
Weighted average shares:			
Common shares outstanding	181	177	172
Dilutive effect of RSUs and PSUs	2	3	1
Weighted average diluted common shares outstanding	183	180	173
Diluted EPS	$ 8.25	$ 7.68	$ 5.81

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, 2022 and 2021 for well-capitalized institutions. The following table presents the Bank's regulatory capital information and regulatory requirements:

($ in millions)	December 31, 2022	December 31, 2021	Regulatory Requirements: Well-Capitalized Ratio	Regulatory Requirements: Minimum Capital Ratio	Regulatory Requirements: Minimum Capital Conservation Buffer [1]
Capital Ratios [2]					
Tier 1 leverage ratio (Tier 1 capital to average assets)	8.51%	8.76%	5.00%	4.00%	—%
CET1 capital to RWAs	9.17%	9.65%	6.50%	4.50%	2.50%
Tier 1 capital to RWAs	11.56%	12.56%	8.00%	6.00%	2.50%
Total capital to RWAs	12.60%	13.72%	10.00%	8.00%	2.50%
Regulatory Capital [2], [3]					
CET1 capital	$ 13,920	$ 12,045			
Tier 1 capital	$ 17,553	$ 15,678			
Total capital	$ 19,118	$ 17,124			
Assets [2], [3]					
Average assets	$206,371	$178,969			
RWAs	$151,777	$124,820			

(1) As of December 31, 2022, our capital conservation buffer was 4.60%, which exceeded the minimum requirement of 2.5% required to be held by banking institutions.
(2) Beginning in 2020, ratios and amounts reflect the Bank's election to delay the estimated impact of the CECL allowance methodology on its regulatory capital, average assets and RWAs over a five-year transition period ending December 31, 2024.
(3) 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 millions)	Year Ended December 31, 2022	2021	2020
Noninterest income:			
Revenue from contracts with customers:			
Investment management fees	$ 612	$ 554	$ 395
Brokerage and investment fees	106	64	47
Insurance fees	21	19	12
Trust fees	28	25	19
Deposit fees	28	27	24
Other	7	7	6
Total revenue from contracts with customers	802	696	503
Other sources of noninterest income	229	224	152
Total noninterest income	$1,031	$ 920	$ 655

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 previously, also through 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. The Trust Company 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 $23 million and $22 million at December 31, 2022 and 2021, respectively, and consist primarily of investment management, brokerage and trust 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 from investments in life insurance. 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 previously, also through 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.

Provision for income taxes for the segments is presented based on the segment's contribution to total consolidated provision for income taxes. Tax preference items are allocated to the segment responsible for the related investments resulting in the tax preference item.

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.

The following table presents the operating results of the Bank's two reportable segments, as well as any reconciling items:

($ in millions)	Commercial Banking	Wealth Management	Reconciling Items	Consolidated Total
Year Ended December 31, 2022				
Net interest income	$ 4,452	$ 382	$ —	$ 4,834
Provision for credit losses	107	—	—	107
Noninterest income:				
Noninterest income from contracts with customers [(1)]	28	789	(15)	802
Other noninterest income	122	107	—	229
Total noninterest income	150	896	(15)	1,031
Noninterest expense	2,763	869	(15)	3,617
Income before provision for income taxes	1,732	409	—	2,141
Provision for income taxes	359	117	—	476
Net income	$ 1,373	$ 292	$ —	$ 1,665
Year Ended December 31, 2021				
Net interest income	$ 3,921	$ 193	$ —	$ 4,114
Provision for credit losses	59	—	—	59
Noninterest income:				
Noninterest income from contracts with customers [(1)]	26	717	(47)	696
Other noninterest income	128	96	—	224
Total noninterest income	154	813	(47)	920
Noninterest expense	2,469	725	(47)	3,147
Income before provision for income taxes	1,547	281	—	1,828
Provision for income taxes	271	79	—	350
Net income	$ 1,276	$ 202	$ —	$ 1,478
Year Ended December 31, 2020				
Net interest income	$ 3,141	$ 121	$ —	$ 3,262
Provision for credit losses	157	—	—	157
Noninterest income:				
Noninterest income from contracts with customers [(1)]	25	518	(40)	503
Other noninterest income	99	53	—	152
Total noninterest income	124	571	(40)	655
Noninterest expense	1,916	550	(40)	2,426
Income before provision for income taxes	1,192	142	—	1,334
Provision for income taxes	231	39	—	270
Net income	$ 961	$ 103	$ —	$ 1,064

(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.

The following table presents the goodwill and total assets of the Bank's two reportable segments, as well as any reconciling items:

($ in millions)	Commercial Banking	Wealth Management	Reconciling Items	Consolidated Total
At December 31, 2022				
Goodwill	$ 25	$ 147	$ —	$ 172
Total assets	$ 211,636	$ 1,948	$ (945)	$ 212,639
At December 31, 2021				
Goodwill	$ 25	$ 147	$ —	$ 172
Total assets	$ 180,447	$ 1,191	$ (551)	$ 181,087

Note 26. Subsequent Events

The Bank evaluated the effects of events that have occurred subsequent to the year ended December 31, 2022.

On February 12, 2023, the Bank redeemed its 1.912% Senior Fixed-to-Floating Rate Notes due 2024 (the "Notes") with an outstanding principal balance of $500 million. The Notes were redeemed at a redemption price equal to the sum of 100% of the aggregate principal amount of the Notes and any accrued and unpaid interest to, but excluding, February 12, 2023.

In February 2023, we offered and sold an aggregate of 2,875,000 new shares of common stock in an underwritten public offering. Net proceeds based on the public offering price, after underwriting discounts and estimated expenses, were $397 million.

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, 2022 and 2021, 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, 2022, 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, 2022, 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, 2022 and 2021, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022, 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, 2022 based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

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.

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.

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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 judgments. 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.

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, 2022 was $784 million. Of this amount, $752 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 variables, and forward-looking macroeconomic information over a reasonable and supportable period to produce a loss rate. The quantitative models also incorporate projections of prepayment (or repayment) speeds over the reasonable and supportable period. After the reasonable and supportable period, the Bank

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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 twelve-year historical period for all loans. 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, 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 period used to calculate loss rates, loan pools that share similar risk characteristics, prepayment (repayment) speeds, the selection of the single macroeconomic scenario and relevant variables, the reasonable and supportable forecast periods, and the reversion periods, (2) the expert judgment together with the credit attributes specific to a certain loan type 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
- continued use and appropriateness of changes made to the quantitative models
- identification and determination of key assumptions used in the quantitative models
- performance monitoring of the quantitative models and their key assumptions
- continued use and appropriateness of changes made to the expert judgment together with the credit attributes specific to a certain loan type
- 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

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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 assessment 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 variables, 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 a certain loan type that it is based on, by inspecting underlying documentation, comparing underlying methodology to the applicable industry practices and to relevant Bank-specific metrics and trends
- 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 Bank's accounting practices
- potential bias in the accounting estimates.

/s/ KPMG LLP

We have served as the Bank's auditor since 2010.

San Francisco, California
February 28, 2023

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, 2022, 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, 2022, 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, 2022 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 197.

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 principal executive officer and principal financial officer, supervised and participated in the evaluation. Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures, as of December 31, 2022, were effective.

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 change in our internal control over financial reporting during the quarter ended December 31, 2022 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

Not applicable.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

This information is incorporated by reference to the Bank's 2023 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 2023 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 2023 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 2023 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 2023 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 June 8, 2021.
3.2	Certificate of Determination for the Bank's 4.000% Noncumulative Perpetual Series M Preferred Stock, par value $0.01 per share, incorporated by reference to Exhibit 3.1 of Form 8-K filed on July 21, 2021.
3.3	Certificate of Determination for the Bank's 4.500% Noncumulative Perpetual Series N Preferred Stock, par value $0.01 per share, incorporated by reference to Exhibit 3.1 of Form 8-K filed on November 29, 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	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.
4.3	Form of Note (included in Exhibit 4.2).

Exhibit No.	Description
4.4	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.
4.5	Form of Note (included in Exhibit 4.4).
4.6	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.
4.7	Form of Depositary Receipt (included in Exhibit 4.6).
4.8	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.
4.9	Form of Depositary Receipt (included in Exhibit 4.8).
4.10	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.
4.11	Form of Depositary Receipt (included in Exhibit 4.10).
4.12	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.
4.13	Form of Depositary Receipt (included in Exhibit 4.12).
4.14	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.
4.15	Form of Depositary Receipt (included in Exhibit 4.14).
4.16	Deposit Agreement, dated July 21, 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 July 21, 2021.
4.17	Form of Depositary Receipt (included in Exhibit 4.16).
4.18	Deposit Agreement, dated November 29, 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 November 29, 2021.
4.19	Form of Depositary Receipt (included in Exhibit 4.18).
4.20	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.
4.21	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, incorporated by reference to Exhibit 10.7 of Form 10-K filed on February 26, 2021. (1)
10.8	Employment Agreement Amendment No. 7, effective July 12, 2021, to the Employment Agreement dated June 15, 2010, as amended effective February 27, 2012, February 25, 2014, December 1, 2015, May 10, 2017, February 13, 2019 and February 24, 2021 between James H. Herbert, II and the Bank, incorporated by reference to Exhibit 10.1 of Form 8-K filed on July 12, 2021. (1)
10.9	Employment Agreement Amendment No. 8, effective December 10, 2021, as clarified on January 10, 2022, to the Employment Agreement dated June 15, 2010, as amended effective February 27, 2012, February 25, 2014, December 1, 2015, May 10, 2017, February 13, 2019, February 24, 2021 and July 12, 2021 between James H. Herbert, II and the Bank, incorporated by reference to Exhibit 10.9 of Form 10-K filed on February 28, 2022. (1)
10.10	Employment Agreement Amendment No. 9, effective March 13, 2022, to the Employment Agreement dated June 14, 2010, as amended effective February 27, 2012, February 25, 2014, December 1, 2015, May 10, 2017, February 13, 2019, February 24, 2021, July 12, 2021 and December 10, 2021, between James H. Herbert, II and the Bank, incorporated by reference to Exhibit 10.1 of Form 8-K filed on March 14, 2022. (1)
10.11	Offer Letter, dated as of August 1, 2022, between the Bank and Susie Cranston, incorporated by reference to Exhibit 10.1 of the Bank's Current Report on Form 8-K filed on August 4, 2022. (1)
10.12	Offer Letter, dated as of August 19, 2022, between the Bank and Neal Holland, incorporated by reference to Exhibit 10.1 of the Bank's Current Report on Form 8-K filed on August 23, 2022. (1)
10.13	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.
10.14	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)
10.15	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	First Republic Bank Survivor Benefit Plan Agreement, filed herewith. (1)

Exhibit No.	Description
10.18	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]
10.19	First Republic Bank 2017 Omnibus Award Plan, as amended and restated effective May 12, 2020, incorporated by reference to Annex A of the Bank's Definitive Proxy Statement for the 2020 Annual Meeting of Shareholders on Schedule 14A filed on April 1, 2020. [1]
10.20	First Republic Bank 2017 Omnibus Award Plan, as amended and restated effective May 17, 2022, incorporated by reference to Annex B of the Bank's Definitive Proxy Statement for the 2022 Annual Meeting of Shareholders on Schedule 14A filed on April 7, 2022. [1]
10.21	Amendment, dated as of November 17, 2021, to the First Republic Bank 2017 Omnibus Award Plan, incorporated by reference to Exhibit 10.18 of Form 10-K filed on February 28, 2022 [1]
10.22	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]
10.23	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 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]
10.25	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]
10.26	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]
10.27	Form of Restricted Stock Unit Agreement—Time Vesting under the 2017 Omnibus Award Plan, incorporated by reference to Exhibit 10.29 of Form 10-K filed on February 26, 2021. [1]
10.28	Form of Restricted Stock Unit Agreement—Time Vesting under the 2017 Omnibus Award Plan, incorporated by reference to Exhibit 10.2 of Form 10-Q filed on May 7, 2021. [1]
10.29	Form of Restricted Stock Unit Agreement—Time Vesting under the 2017 Omnibus Award Plan, incorporated by reference to Exhibit 10.3 of Form 10-Q filed on May 9, 2022. [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]
10.31	First Republic Bank 2021 Annual Executive Incentive Plan, incorporated by reference to Exhibit 10.3 of Form 10-Q filed on May 7, 2021. [1]
21	Subsidiaries of First Republic Bank.
31.1	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Principal 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 Principal 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/ NEAL HOLLAND **(Neal Holland)**	Executive Vice President and Chief Financial Officer	February 28, 2023

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/ MICHAEL J. ROFFLER **(Michael J. Roffler)**	Chief Executive Officer, President and Director (Principal Executive Officer)	February 28, 2023
/s/ NEAL HOLLAND **(Neal Holland)**	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 28, 2023
/s/ OLGA TSOKOVA **(Olga Tsokova)**	Executive Vice President, Deputy Chief Financial Officer and Chief Accounting Officer (Principal Accounting Officer)	February 28, 2023
/s/ JAMES H. HERBERT, II **(James H. Herbert, II)**	Executive Chairman and Director	February 28, 2023
/s/ KATHERINE AUGUST-DEWILDE **(Katherine August-deWilde)**	Vice Chair and Director	February 28, 2023
/s/ THOMAS J. BARRACK, JR. **(Thomas J. Barrack, Jr.)**	Director	February 28, 2023
/s/ FRANK J. FAHRENKOPF, JR. **(Frank J. Fahrenkopf, Jr.)**	Director	February 28, 2023
/s/ BORIS GROYSBERG **(Boris Groysberg)**	Director	February 28, 2023
/s/ SANDRA R. HERNÁNDEZ **(Sandra R. Hernández)**	Director	February 28, 2023
/s/ PAMELA J. JOYNER **(Pamela J. Joyner)**	Director	February 28, 2023
/s/ SHILLA KIM-PARKER **(Shilla Kim-Parker)**	Director	February 28, 2023
/s/ REYNOLD LEVY **(Reynold Levy)**	Director	February 28, 2023
/s/ ALBERT FREDERICK OSTERLOH, IV **(Albert Frederick Osterloh, IV)**	Director	February 28, 2023
/s/ GEORGE G.C. PARKER **(George G.C. Parker)**	Director	February 28, 2023

Exhibit 21

FIRST REPUBLIC BANK

SUBSIDIARIES

The following is a list of the subsidiaries of First Republic Bank as of December 31, 2022:

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 Principal Executive 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 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 28, 2023

/s/ Michael J. Roffler

Name: Michael J. Roffler
Title: Chief Executive Officer and President

Exhibit 31.2

Certification of Principal Financial Officer
Pursuant to §302 of The Sarbanes-Oxley Act of 2002

I, Neal Holland, 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 28, 2023

/s/ Neal Holland

Name: Neal Holland
Title: Executive Vice President and
Chief Financial Officer

Exhibit 32.1

Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002

The undersigned, the Principal 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, 2022 (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 28, 2023

/s/ Michael J. Roffler

Name: Michael J. Roffler
Title: Chief Executive Officer and President

Exhibit 32.2

Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002

The undersigned, the Principal 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, 2022 (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 28, 2023

/s/ Neal Holland

Name: Neal Holland
Title: Executive Vice President and Chief Financial Officer