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

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

For the fiscal year ended December 31, 2022
OR

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

For the transition period from to .
Commission File Number: 001-39154

SVB FINANCIAL GROUP
(Exact name of registrant as specified in its charter)

Delaware	**91-1962278**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

3003 Tasman Drive, Santa Clara, California 95054-1191
(Address of principal executive offices) (Zip Code)

(408) 654-7400
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common stock, par value $0.001 per share	SIVB	The Nasdaq Stock Market LLC
Depositary shares, each representing a 1/40th ownership interest in a share of 5.250% Fixed-Rate Non-Cumulative Perpetual Preferred Stock, Series A	SIVBP	The Nasdaq Stock Market LLC

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, 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. Yes ☒ No ☐

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 Exchange Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity securities held by non-affiliates of the registrant as of June 30, 2022, the last business day of the registrant's most recently completed second fiscal quarter, based upon the closing price of its common stock on such date, on the NASDAQ Global Select Market was $23,336,532,366.

At January 31, 2023, 59,200,925 shares of the registrant's common stock ($0.001 par value) were outstanding.

Documents Incorporated by Reference	Parts of Form 10-K Into Which Incorporated
Definitive proxy statement for the Company's 2022 Annual Meeting of Stockholders to be filed within 120 days of the end of the fiscal year ended December 31, 2021	Part III

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Glossary of acronyms and abbreviations that may be used in this Report

ACL — Allowance for Credit Losses
AFS — Available-for-Sale
AICPA— American Institute of Certified Public Accountants
AIR — Accrued Interest Receivable
ALCO — Asset Liability Management Committee
AOCI — Accumulated Other Comprehensive Income
ARRC — Alternative Reference Rates Committee
ASC — Accounting Standards Codification
ASU — Accounting Standards Update
AUA — SVB Private Assets Under Administration
AUM — SVB Private Assets Under Management
Boston Private or BPFH — Boston Private Financial Holdings, Inc.
BPS — Basis Points
C&I — Commercial and Industrial
CECL — Current Expected Credit Losses
CET1 — Common Equity Tier 1
CMBS — Commercial Mortgage-Backed Securities
CMO — Collateralized Mortgage Obligations
COSO — Committee of Sponsoring Organizations of the Treadway Commission
CRA — Community Reinvestment Act
CRE — Commercial Real Estate
DFPI— California Department of Financial Protection and Innovation
EAD — Exposure at Default
ECL— Expected Credit Losses
EHOP — Employee Home Ownership Program of the Company
EPS — Earnings Per Share
ERI — Energy and Resource Innovation
ESOP — Employee Stock Ownership Plan of the Company
ESPP — 1999 Employee Stock Purchase Plan of the Company
EVE — Economic Value of Equity
FASB — Financial Accounting Standards Board
FDIC — Federal Deposit Insurance Corporation
FHLB — Federal Home Loan Bank
FINRA— Financial Industry Regulatory Authority
FRB — Federal Reserve Bank
FTE — Full-Time Equivalent Employee
FTP — Funds Transfer Pricing
GAAP — U.S. generally accepted accounting principles
HTM — Held-to-Maturity
IASB — International Accounting Standards Board
ICP — Incentive Compensation Plan
IFRS— International Financial Reporting Standards
IOSCO — International Organization of Securities Commissions
IPO — Initial Public Offering
IRS — Internal Revenue Service
ISDA — International Swaps and Derivatives Association, Inc.
IT — Information Technology
LCR — Liquidity Coverage Ratio
LGD — Loss Given Default
LIBOR — London Interbank Offered Rate
M&A — Merger and Acquisition
MBS — Mortgage-Backed Securities
NCI — Noncontrolling Interests
NFSR — Net Stable Funding Ratio
NII — Net Interest Income
NM — Not meaningful
OREO — Other Real Estate Owned
PCD — Purchased Credit-Deteriorated
PD — Probability of Default
PPP — Paycheck Protection Program
PPPLF — Paycheck Protection Program Lending Facility
ROU — Right of Use
RP — Retention Program
SBA — U.S. Small Business Association
SEC — Securities and Exchange Commission
SLBO — Sponsor-Led Buy-Out
SOFR — Secured Overnight Financing Rate
SPAC — Special Purpose Acquisition Company
SPD-SVB — SPD Silicon Valley Bank Co., Ltd. (the Bank's joint venture bank in China)
SVB Securities — SVB Securities Holdings LLC (formerly known as SVB Leerink Holdings LLC)
TDR — Troubled Debt Restructuring
U.K. — United Kingdom
VIE — Variable Interest Entity

Forward-Looking Statements

This Annual Report on Form 10-K, including in particular “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under Part II, Item 7 of this report, contains forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. In addition, management has in the past and may in the future make forward-looking statements to analysts, investors, representatives of the media and others. Forward-looking statements are statements that are not historical facts and represent only our beliefs regarding future events. Broadly speaking, forward-looking statements include, but are not limited to, the following:

- Financial projections, including with respect to our NII, noninterest income, EPS, noninterest expenses (including professional services, compliance, compensation and other costs), cash flows, balance sheet positions, capital expenditures, deposit growth and mix, liquidity and capitalization or other financial items;
- Descriptions of our strategic initiatives, plans or objectives for future operations, including pending sales or acquisitions;
- Forecasts of private equity and venture capital funding and investment levels;
- Forecasts of future interest rates, economic performance and income from investments;
- Forecasts of expected levels of provisions for loan losses, loan growth, loan mix, loan yields and client funds;
- The outlook on our clients' performance; and
- Descriptions of assumptions underlying or relating to any of the foregoing.

You can identify these and other forward-looking statements by the use of words such as “becoming,” “may,” “will,” “should,” “could,” “would,” “predict,” “potential,” “continue,” “anticipate,” “believe,” “estimate,” “assume,” “seek,” “expect,” “plan,” “intend,” and the negative of such words or comparable terminology. Forward-looking statements are neither historical facts nor assurances of future performance.

Although we believe that the expectations reflected in our forward-looking statements are reasonable, we have based these expectations on our current beliefs as well as our assumptions, and such expectations may not prove to be correct. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside our control. Our actual results of operations and financial performance could differ significantly from those expressed in or implied by our management’s forward-looking statements. Important factors that could cause our actual results and financial condition to differ from the expectations stated in the forward-looking statements include, among others:

- Market and economic conditions (including elevated inflation levels, sustained interest rate increases, the general condition of the capital and equity markets, private equity and venture capital investment, IPO, secondary offering, SPAC fundraising, M&A and financing activity levels) and the associated impact on us (including effects on total client funds and client demand for our commercial and investment banking and other financial services, as well as on the valuations of our investments);
- Disruptions to the financial markets as a result of the current or anticipated impact of military conflict, including the ongoing military conflict between Russia and Ukraine, terrorism and other geopolitical events;
- The COVID-19 pandemic, including COVID-19 variants and its effects on the economic and business environments in which we operate, and its effect on our business and operations;
- The impact of changes from the Biden-Harris administration and the U.S. Congress on the economic environment, capital markets and regulatory landscape, including monetary, tax and other trade policies, as well as regulatory changes from bank regulatory agencies;
- Changes in the volume and credit quality of our loans as well as volatility of our levels of nonperforming assets and charge-offs;
- The impact of changes in interest rates or market levels or factors affecting or affected by them, including on our loan and investment portfolios and deposit costs;
- The adequacy of our ACL and the need to make provisions for credit losses for any period;
- The sufficiency of our capital and liquidity positions, and our ability to generate capital or raise capital on favorable terms;
- Changes in the levels or composition of our loans, deposits and client investment fund balances;
- Changes in the performance or equity valuations of funds or companies in which we have invested or hold derivative instruments or equity warrant assets;
- Variations from our expectations as to factors impacting our cost structure;
- Changes in our assessment of the creditworthiness or liquidity of our clients or unanticipated effects of credit concentration risks which create or exacerbate deterioration of such creditworthiness or liquidity;
- Variations from our expectations as to factors impacting the timing and level of employee share-based transactions;

- The occurrence of fraudulent activity, including breaches of our information security or cyber security-related incidents;
- Business disruptions and interruptions due to natural disasters and other external events;
- The impact on our reputation and business from our interactions with business partners, counterparties, service providers and other third parties;
- The expansion of our business internationally, and the impact of geopolitical events and international market and economic events;
- The effectiveness of our risk management framework and qualitative and quantitative models;
- Our ability to maintain or increase our market share, including through successfully implementing our business strategy, and undertaking new business initiatives and realizing the anticipated benefits of such strategies and initiatives, including through the continuing integration of Boston Private, the expansion of SVB Private and the growth and expansion of SVB Securities;
- Unfavorable resolution of legal proceedings or claims, as well as legal or regulatory proceedings or governmental actions;
- Variations from our expectations as to factors impacting our estimate of our effective tax rate;
- Changes in applicable accounting standards and tax laws;
- Regulatory or legal changes (including changes to the laws and regulations that apply to us as a result of the growth or expansion of our business), and their impact on us; and
- Other factors as discussed in “Risk Factors” under Part I, Item 1A of this report.

Accordingly, you are cautioned not to place undue reliance on forward-looking statements. We urge investors to consider all of these factors, among others, carefully in evaluating the forward-looking statements contained in this Annual Report on Form 10-K. All subsequent written or oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by these cautionary statements. The forward-looking statements included in this filing are made only as of the date of this filing. We assume no obligation and do not intend to revise or update any forward-looking statements contained in this Annual Report on Form 10-K, except as required by law.

PART I.

ITEM 1. BUSINESS

General

SVB Financial Group (*“SVB Financial”*) is a diversified financial services company, as well as a bank holding company and a financial holding company. SVB Financial was incorporated in the state of Delaware in March 1999. Through our various subsidiaries and divisions, we offer a diverse set of banking and financial products and services to clients across the United States, as well as in key international innovation markets. For nearly 40 years, we have been dedicated to helping support entrepreneurs and clients of all sizes and stages throughout their life cycles, primarily in the technology, life science/healthcare, private equity/venture capital and premium wine industries.

We offer commercial and private banking products and services through our principal subsidiary, Silicon Valley Bank (the “Bank”), which is a California state-chartered bank founded in 1983 and a member of the Federal Reserve System. The Bank and its subsidiaries also offer asset management, private wealth management and other investment services. In addition, through SVB Financial's other subsidiaries and divisions, we offer investment banking services and non-banking products and services, such as funds management and M&A advisory services. We focus on cultivating strong relationships with firms within the private equity and venture capital community worldwide, many of which are also our clients and may invest in our corporate clients.

As of December 31, 2022, on a consolidated basis, we had total assets of $211.8 billion, total investment securities of $120.1 billion, total loans, amortized cost, of $74.3 billion, total deposits of $173.1 billion and total SVB Financial stockholders' equity of $16.0 billion.

Headquartered in Santa Clara, CA, we operate in key innovation markets in the United States and around the world. Our corporate office is located at 3003 Tasman Drive, Santa Clara, California 95054, and our telephone number is (408) 654-7400.

When we refer to “SVB Financial Group,” ”SVBFG,” the “Company,” “we,” “our,” “us” or use similar words, we mean SVB Financial Group and all of its subsidiaries collectively, including the Bank. When we refer to “SVB Financial” or the “Parent” we are referring only to our parent company entity, SVB Financial Group (not including subsidiaries).

Business Overview

For reporting purposes, SVB Financial Group has four operating segments for which we report financial information in this report: Silicon Valley Bank, SVB Private, SVB Capital and SVB Securities.

Silicon Valley Bank

Our products and services are provided by the Bank and its subsidiaries to clients primarily in the technology and life science/healthcare industries as well as global private equity and venture capital clients. The Bank provides solutions to the financial needs of our commercial clients through credit, treasury management, foreign exchange, trade finance and other financial products and services. We broadly serve clients within the U.S., as well as non-U.S. clients in key international innovation markets.

The Bank offers commercial clients a full range of credit solutions including traditional term loans, growth capital term loans, equipment loans, asset-based loans, revolving lines of credit, warehouse facilities, recurring revenue facilities, mezzanine lending, acquisition finance facilities, corporate working capital facilities, standby and commercial letters of credit, project finance loans and credit card programs. These loans may be secured by clients' assets or may be unsecured.

The Bank's global treasury management services include a wide range of deposits and payables/collections solutions, payments and cash management solutions accessible through our expanding online and mobile banking platforms. Deposit products include business and analysis checking accounts, money market accounts, multi-currency accounts, in-country bank accounts, sweep accounts and positive pay services, as well as current accounts and foreign currency accounts offered through SVB’s UK Subsidiary. In connection with US-based deposit services, the Bank provides receivables and payables services, which include merchant services, remote capture, lockbox, controlled disbursement accounts and business bill pay. Global payment services include wire transfer, automated clearing house payments, business credit and debit cards and various UK and EMEA-based fund transfer services.

The Bank's foreign exchange and trade finance products and services help to facilitate clients' global finance and business needs. The Bank's foreign exchange services help commercial clients to manage their foreign currency needs and risks through the purchase and sale of currencies in the spot market as well as with currency swaps and hedges.

The Bank offers trade finance products to meet client’s domestic and global finance needs. These products include standby letters of credit, performance guarantees and commercial letters of credit. Standby letters of credit protect a third party from default on a contractual obligation. Performance guarantees are issued to guarantee a clients bid on a project,

completion of a project in accordance with contract terms or support a client obligation to supply products or services to a third party. Commercial letters of credit assist customers in buying or selling goods, usually on a global basis.

The Bank and its subsidiaries also offer a variety of investment services and solutions to its clients that enable them to more effectively manage their assets. For example, through its registered investment advisory subsidiary, SVB Asset Management, the Bank offers discretionary investment advisory services based on its clients' investment policies, strategies and objectives. The Bank also offers investment solutions through our repurchase agreement program.

Our Global Fund Banking Division provides banking products and services primarily to our global private equity and venture capital clients.

SVB Private

SVB Private is the private banking and wealth management division of the Bank and provides a broad array of financial solutions for private clients. Private banking, lending, brokerage and wealth management and investment advisory services are offered by the following SVB subsidiaries and affiliates: Silicon Valley Bank, SVB Investment Services Inc. and SVB Wealth LLC. Our clients are primarily private equity/venture capital professionals and executive leaders of the innovation economy they support as well as high net worth clients acquired from Boston Private and our premium wine clients. SVB Private offers a customized approach to private wealth management and private banking services, including mortgages, home equity lines of credit, restricted and private stock loans, capital call lines of credit, other secured and unsecured lending product and vineyard development loans, as well as planning-based financial strategies, wealth management, family office, financial planning, tax planning and trust services. We also help our private banking clients meet their cash management needs by providing deposit account products and services, including checking, money market, certificates of deposit accounts, online banking and other personalized banking services. Also included in SVB Private are private business, commercial real estate and non-profit commercial lending and banking acquired from Boston Private.

SVB Capital

SVB Capital is the venture capital and credit investment arm of SVB Financial Group, which focuses primarily on funds management. SVB Capital manages over $9.5 billion of funds on behalf of third party limited partner investors and, on a more limited basis, SVB Financial Group. The SVB Capital family of funds is comprised of pooled investment vehicles such as direct venture funds that invest in companies and funds of funds that invest in other venture capital funds, as well as debt funds that provide lending and other financing solutions. SVB Capital generates income for the Company primarily through investment returns (including carried interest) and management fees. See Note 2—“Summary of Significant Accounting Policies” of the “Notes to the Consolidated Financial Statements” under Part II, Item 8 of this report for additional details.

SVB Securities

SVB Securities is an investment bank focused on the innovation economy and operates as a wholly-owned subsidiary of SVB Financial Group. SVB Securities provides investment banking services across all major sub-sectors of Healthcare and Technology. Healthcare sub-sectors include Biopharma, Digital Health and HealthTech, Healthcare Services, Medical Technology and Tools and Diagnostics. Technology sub-sectors include Consumer Internet, Commerce Enablement and Marketing Software, Digital Infrastructure and Tech-Enabled Services, Learning Technology, Enterprise Software, Industrial Technology and Fintech. SVB Securities also provides equity research coverage of over 360 Healthcare and Technology companies. SVB Securities focuses on the following product and service offerings: Capital Raising, M&A Advisory, Structured Finance, Equity Research and Sales and Trading.

For more information about our four operating segments, including financial information and results of operations, see “Management's Discussion and Analysis of Financial Condition and Results of Operations-Operating Segment Results” under Part II, Item 7 of this report, and Note 24—“Segment Reporting” of the “Notes to the Consolidated Financial Statements” under Part II, Item 8 of this report.

Revenue Sources

Our total revenue is comprised of NII and noninterest income. NII on a fully taxable equivalent basis and noninterest income for the year ended December 31, 2022, were $4.5 billion and $1.7 billion, respectively.

NII accounts for the major portion of our earnings. It is comprised primarily of income generated from interest rate spread differences between the interest rates received on interest-earning assets, such as loans extended to clients and securities held in our fixed income securities portfolio, and the interest rates paid by us on interest-bearing liabilities, such as deposits and borrowings. Our deposits are largely obtained from commercial clients within our technology, life science/healthcare and private equity/venture capital industry sectors. We also obtain deposits from our SVB Private clients, including premium wine industry commercial clients.

Noninterest income is primarily income generated from our fee-based services, investment banking revenue and gains on our investments and equity warrant assets. We offer a wide range of fee-based financial services to our clients. We generally refer to revenues generated by such fee-based services as our "core fee income" (a non-GAAP measure), which is comprised of our client investment fees, wealth management and trust fees, foreign exchange fees, credit card fees, deposit service charges, lending related fees and letters of credit and standby letters of credit fees. In addition, through SVB Securities, we offer capital raising, M&A advisory services, structured finance, equity research and sales and trading capabilities as mentioned above. We generally refer to our core fee income plus revenues generated by these investment banking services and commissions from sales and trading activities as “core fee income plus SVB Securities revenue.” We believe our ability to integrate the sales and delivery of our broad set of financial solutions to our clients is a strength of our business model. Additionally, we hold non-marketable and marketable investment securities. Subject to applicable regulatory requirements, we manage and invest in private equity/venture capital funds that invest directly in both privately-held and publicly traded companies, as well as funds that invest in other private equity/venture capital funds. Gains on these investments are reported in our consolidated statements of income and include NCI. We also recognize gains from warrants to acquire stock in client companies, which we obtain in connection with negotiating credit facilities and certain other services. See “Management's Discussion and Analysis of Financial Condition and Results of Operations — Noninterest Income — Gains (losses) on Investment Securities, Net” and "Gains on Equity Warrant Assets, Net" under Part II, Item 7 of this report.

We derive substantially all of our revenue from U.S. clients. We derived less than 10 percent of our total revenues from foreign clients for each of 2022, 2021 and 2020.

Client Industries

We provide products and services to serve the needs of our clients in each of the industries described below. We serve our commercial company clients, primarily in the technology and life science/healthcare industries, throughout their life cycles, beginning with the "emerging" or "early-stage" and progressing through later stages as their needs mature and expand. We also serve other targeted client industries, including private equity and venture capital firms and those in the premium wine industry.

Technology and Life Science/Healthcare

We serve a variety of clients in the technology and life science/healthcare industries. Our technology clients tend to be in the industries of frontier tech and hardware (such as semiconductors, communications, data, storage and electronics), enterprise and consumer software/internet (such as infrastructure software, applications, software services, digital content and advertising technology), fintech and climate technology and sustainability. Our life science/healthcare clients primarily tend to be in the industries of biopharma, healthtech, medical devices, healthcare services and diagnostics and tools. A key component of our technology and life science/healthcare business strategy is to develop relationships with clients at an early stage and offer them banking services that will continue to meet their needs as they mature and expand. We serve these clients primarily through three practices:

- Our **SVB StartUp Banking** practice focuses on serving our “emerging” or “early-stage” clients. These clients are generally privately-held companies in the start-up or early stages of their life cycles and funded by friends and family, ‘‘seed’’ or ‘‘angel’’ investors or have gone through an initial round of venture capital financing. They are typically engaged primarily in research and development activities and may have brought only a few products or services to market, if any. SVB StartUp Banking clients tend to have annual revenues below $5 million, and many are pre-revenue companies.
- Our **SVB Early Stage** practice serves our “mid-stage” and “later-stage” clients. These clients are generally privately-held companies in the intermediate or later stages of their life cycles, and are often dependent on venture capital for funding. However, some of these clients are in the more advanced stages of their life cycles and may be publicly-held or poised to become publicly-held. Our SVB Early Stage clients generally have a more established product or service offering in the market and may be in a period of expansion with annual revenues between $5 million and $75 million.
- Our **SVB Corporate Banking** practice primarily serves our large corporate clients, which are more mature and established companies. These clients are generally publicly-held or large privately-held companies and have a more sophisticated product or service offering in the market. SVB Corporate Banking clients tend to have annual revenues over $75 million.

In addition, our **Sponsored Finance** group provides debt financing in support of private equity sponsored company acquisitions, primarily technology and life science/healthcare companies.

Global Fund Banking

We serve clients in the private equity/venture capital community, many of whom are investors in the portfolio company clients to whom we provide banking services. In particular, we provide credit facilities to our private equity/venture capital

clients, including capital call lines of credit, the repayment of which is dependent on the payment of capital calls by the underlying limited partner investors in the funds managed by the firms. In addition to Global Fund Banking’s lending products, we provide deposit products, treasury management products and several FX solutions to facilitate cross-border capital flows for our private equity/venture capital clients.

Since our founding, we have cultivated strong relationships within the venture capital community, which has over time expanded to relationships within the private equity community. We believe our network helps to facilitate deal flow opportunities between these private equity/venture capital firms and the companies within the markets we serve.

Premium Wine

We are one of the leading providers of financial services to premium wine producers across the western United States, primarily in California’s Napa Valley, Sonoma County and Central Coast regions, as well as the Pacific Northwest. We focus on vineyards and wineries that produce grapes and premium wines.

Private Bank/Wealth Management

We provide private banking and wealth management services to consumer clients, including private equity/venture capital professionals and executive leaders of the innovation companies they support. We offer private banking, cash management and wealth management services to meet their personal banking and financial needs.

Competition

The banking and financial services industry is highly competitive and continues to evolve as a result of changes in regulation, technology, product delivery systems and the general market and economic climate. Our competitors include other banks, debt funds, specialty and diversified financial services intermediaries and other "Fintech" disruptors that offer lending, leasing, payments, investment, foreign currency exchange, advisory and other financial products and services to our target client base. For example, we compete with alternative lenders, such as "marketplace" lenders, peer-to-peer lenders and other non-traditional lenders that have emerged in recent years. We also compete with non-financial service providers, particularly payment facilitators and processors, as well as other nonbanking technology providers in the payments industry which may offer specialized services to our client base. In addition, we compete with hedge funds and private equity funds, as well as investment banks. The principal competitive factors in our markets include product offerings, service, pricing and transaction size and structure. Given our established market position within the client segments that we serve, our continued efforts to develop products and services, and our ability to integrate and integrate the sales and delivery of our broad set financial solutions to extend the length of our relationships with our clients, we believe we compete favorably in the markets in our core business areas.

Human Capital

SVB Financial Group's success is dependent on our ability to retain, attract and motivate qualified employees. We rely on our personnel, which includes a substantial number of employees who have technical or other expertise and/or a strong network of relationships with individuals and institutions in the markets we serve. Competition for skilled and qualified personnel in financial services, technology and innovation is significant in the markets in which we operate. As part of our effort to retain, attract and motivate employees, we strive to offer competitive compensation and benefits, promote diversity, equity and inclusion, support the safety and well-being of our employees, encourage our employees to give back to their communities and lead with our corporate values. Through these efforts, we strive to foster a workplace and environment that empower our employees to be successful.

As of December 31, 2022, we employed 8,553 FTEs. Approximately 80 percent of our employees are in the United States and approximately 20 percent are in international locations, including India, the U.K., Israel, Canada, China, Germany, Hong Kong, Ireland, Denmark and Sweden. Our overall employee count increased by approximately 30 percent in 2022, mostly through organic growth.

Following the reopening of our offices around the globe in 2022, we continued to focus on the safety, well-being and stability of our people and providing support for our employees, including support to those directly impacted by COVID-19, mental health and wellness support and other work-from-home support such as utility stipends and technology and equipment. Looking forward, we believe that flexibility fosters our success and that coming together in person strengthens our relationships and with that, our ability to support each other and our clients. To that end, we have deployed a hybrid work environment where frequency of time in office varies by function and role. We encourage you to visit our website under "*About US – Living Our Values*," for more detailed information regarding our ESG-related programs and initiatives, as well as additional details regarding our human capital management. The contents of our website are not incorporated herein by reference, and the website address provided is intended to be an inactive textual reference only.

Compensation and Benefits. In order to retain and attract talent, we provide employees with competitive compensation and benefits packages. Our compensation and benefits program provides both short-term and long-term awards, incentivizing performance, aligning employee and shareholder interests and balancing prudent risk taking. Employee compensation packages include a competitive base salary and, subject to Company and individual performance, may include an annual incentive cash bonus. Employees at certain levels are eligible to receive equity awards tied to the value of the Company's stock. Other employee benefits include health insurance (medical, dental and vision), parental bonding leave, a 401(k) plan with matching employee contributions, an employee stock purchase plan, an EHOP that offers mortgages on primary homes, paid time off, life insurance, disability insurance, wellness programs (including webinars as well as individual wellness counseling) and learning opportunities.

Retention and Development. We believe our employees join SVB and stay with us because of the opportunity to build a meaningful career and help shape the global innovation economy, knowing that their skills and experience are valued. To that end, we are committed to providing learning and development opportunities to help our employees realize their potential and achieve their personal career goals. Key examples of this commitment include an early career development program that gives entry-level associates advanced, hands-on training in areas such as credit risk assessment, loan portfolio management and client relationship skills as well as a global learning platform which provides a learning management delivery framework to support SVB's strategic direction globally and serves as the core system to develop our talent. For employees seeking development through formal education programs, SVB also subsidizes tuition, fees and textbooks required to earn a certification, designation or degree relevant to their career path at SVB.

Diversity, Equity and Inclusion ("DEI"). We believe that advancing diversity, equity and inclusion produces better results for our clients and is crucial to attracting and retaining skilled personnel. There is a clear opportunity to improve representation across all levels, especially for women, Black/African American and Hispanic/Latinx individuals in senior leadership. We are prioritizing these efforts and introduced goals in 2022 to strengthen hiring and amplify talent development initiatives to create paths to senior leadership. Our multi-pronged approach to promoting a diverse and inclusive workplace includes employee awareness programs and Employee Resource Groups, internal DEI-focused "town hall" meetings, regular training and educational opportunities, fair pay analysis, leadership development, hiring outreach programs and strategic partnerships to advance diversity objectives.

Safety and Well-Being. The safety and well-being of our employees is of paramount importance. We have developed and maintain company procedures and practices to ensure the safety of our employees in the different markets we operate. During 2022, we continued to focus on providing employee support to address work, life, financial and health-related issues. This included programs and benefits to ease work-from-home challenges and address the medical and other support needs of those directly impacted by COVID-19. We are also committed to maintaining a work environment that is free of harassment or discriminatory practices. We have processes and escalation channels for employees to report harassment, discrimination or other concerns. In addition, we regularly seek feedback from employees through engagement surveys to help evaluate engagement and job satisfaction, as well as their understanding of and alignment with our business objectives and values.

Community. We are committed to giving back to the communities in which our employees live and work and believe these efforts help us retain and attract talent. We match certain employee charitable donations to eligible non-profits. We also encourage employee volunteering. Our non-profit charitable SVB Foundation also contributes to community organizations and other causes. We also invest in affordable housing projects in the communities in which we live and work as well as provide financial support to low- and moderate-income communities in California and Massachusetts. In addition, we have a university scholarship program that funds certain scholarships and internships.

Company Values. Our Company values guide our actions and empower our employees to be successful. Our core values are: (i) start with empathy for others, (ii) take responsibility, (iii) embrace diverse perspectives, (iv) speak and act with integrity and (v) keep learning and improving. We believe that our values are key to attracting, retaining, and inspiring our employees and contribute to the success of both our business and the innovation economy more generally.

Supervision and Regulation

Our bank and bank holding company operations are subject to extensive regulation by federal and state regulatory agencies. This regulation is intended primarily for the stability of the U.S. banking system as well as the protection of depositors and the Deposit Insurance Fund (the "DIF"). This regulation is not intended for the benefit of our security holders.

As a bank holding company that has elected financial holding company ("FHC") status, SVB Financial is subject to primary regulation, supervision, and examination by the Federal Reserve under the Bank Holding Company Act of 1956, as amended (the "BHC Act"). The Bank, as a California state-chartered bank and a member of the Federal Reserve System, is subject to primary supervision and examination by the Federal Reserve as well as the DFPI. In addition, the Bank must comply with certain requirements of the FDIC as, to the extent provided by law, the Bank's deposits are insured by the FDIC. Our consumer banking activities also are subject to regulation and supervision by the Consumer Financial Protection Bureau (the "CFPB").

SVB Financial and certain of its non-bank subsidiaries are also subject to regulation by the SEC and FINRA as well as certain other federal and state regulatory agencies. In addition, we are subject to regulation by certain foreign regulatory agencies in international jurisdictions where we conduct, or may in the future wish to conduct, business, including the U.K., Germany, Israel, China, Hong Kong, Sweden and Canada. (See "International Regulation" below.)

The following discussion of statutes and regulations is a summary and does not purport to be complete. This discussion is qualified in its entirety by reference to the statutes and regulations referred to in this discussion. Regulators, the U.S. Congress, state legislatures and international consultative and standard-setting bodies continue to enact rules, laws and policies to regulate the financial services industry and public companies in an effort to protect consumers and investors, and may have differing interpretations in the implementation of such rules. Actions by the U.S. Congress and the Biden-Harris Administration, as well as related changes in key personnel at regulatory agencies, could result in changes in regulations applicable to us and how they are interpreted. As a result, the precise nature of laws and regulations relevant to our activities and the effect of government policies on the Company's business cannot be predicted and, in some cases, may have a material and adverse effect on our business, financial condition, and/or results of operations. For more information, see "Risk Factors-Legal and Regulatory Risks" under Part I, Item IA of this report.

Regulation and Supervision of SVB Financial and Silicon Valley Bank

As an FHC, SVB Financial generally may engage in certain otherwise prohibited non-banking activities and activities that the Federal Reserve has determined to be "financial in nature" or incidental or complementary to activities that are financial in nature, including certain securities, merchant banking and insurance activities.

In order to retain FHC status, an FHC and all its depository institution subsidiaries must be well-capitalized and well-managed, pursuant to the Federal Reserve's Regulation Y. Otherwise, the Federal Reserve could impose corrective capital and/or managerial requirements, as well as impose material restrictions on the FHC's activities and ability to enter into certain transactions. If the deficiencies persist, the FHC may be required to divest its insured depository institution (an "IDI") subsidiaries or to cease engaging in activities other than the business of banking and those closely related to banking.

In addition, if an IDI subsidiary of an FHC has not received at least a satisfactory rating on its most recent examination under the CRA, the FHC would not be able to commence any new financial activities or acquire a company that engages in such activities. In that case, the FHC would still be allowed to engage in activities closely related to banking and make investments in the ordinary course of conducting banking activities. The Bank continues to be in at least satisfactory compliance with the CRA, and in 2021, it received its first "outstanding" rating on its CRA strategic plan.

Pursuant to applicable California and federal law, state-chartered commercial banks are permitted to engage in any activity permissible for national banks, which includes the many so-called "closely related to banking" or "non-banking" activities commonly conducted by national banks. In addition, an IDI may conduct, through a subsidiary, certain "financial" activities that would be impermissible for the IDI itself to conduct, provided the IDI remains "well-capitalized," "well-managed" and in satisfactory compliance with the CRA.

Bank holding companies and IDIs are subject to potential enforcement actions of varying levels of severity by federal and state regulators and law enforcement authorities for unsafe or unsound practices in conducting their business or for violations of law, regulation or condition imposed in writing by any applicable agency or term of a written agreement with that agency.

Enhanced Prudential Standards

In October 2019, the federal banking agencies issued rules that tailor the application of enhanced prudential standards to large bank holding companies and the capital and liquidity rules to large bank holding companies and depository institutions (the "Tailoring Rules") to implement amendments to the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") under the Economic Growth, Regulatory Relief, and Consumer Protection Act (the "EGRRCPA"). Under the EGRRCPA, the threshold above which the Federal Reserve is required to apply enhanced prudential standards to bank holding companies increased from $50 billion in average total consolidated assets to $250 billion. The Federal Reserve may also impose enhanced prudential standards on bank holding companies with between $100 billion and $250 billion in average total consolidated assets.

Under the Tailoring Rules, banking organizations are grouped into four categories based on their U.S. G-SIB status, size and four other risk-based indicators. The most stringent standards apply to U.S. G-SIBs, which represent Category I, and the least stringent standards apply to Category IV organizations, which have between $100 billion and $250 billion in average total consolidated assets and less than $75 billion in certain other risk-based indicators. Category IV organizations are, among other things, subject to: (i) certain liquidity risk management and risk committee requirements, including liquidity buffer and liquidity stress testing requirements, (ii) requirements to develop and maintain a capital plan on an annual basis and (iii) supervisory capital stress testing on a biennial basis. SVB Financial is considered a Category IV organization, and accordingly, is subject to requirements applicable to Category IV organizations.

If a Category IV organization exceeds either (i) $250 billion in average total consolidated assets or (ii) $100 billion or more in average total consolidated assets and at least $75 billion in nonbank assets, weighted short-term wholesale funding (as defined by the Federal Reserve) ("WSTWF") or off-balance sheet exposures, it will become a Category III organization, and is then subject to additional heightened requirements.

Several of the enhanced prudential standards for Category IV and Category III organizations are summarized below:

- *Risk Management.* Category IV and Category III organizations are subject to risk committee and risk management requirements, as well as liquidity risk management, liquidity buffer and liquidity stress testing requirements.
- *Comprehensive Capital Analysis and Review ("CCAR").* Category IV and Category III organizations are required to submit an annual capital plan to the Federal Reserve. The Federal Reserve's capital plan rule provides organizations subject to Category IV standards additional flexibility to develop their capital plans. For organizations subject to CCAR, failure to submit a satisfactory plan can result in restrictions on capital distributions, including dividends and common stock repurchases. The CCAR process is intended to help ensure that BHCs have robust, forward-looking capital planning processes that account for each company's unique risks and that permit continued operations during times of economic and financial stress. We expect to participate in the CCAR process for the first time in 2024.

- *Stress Testing.* Category IV organizations are subject to supervisory stress tests conducted by the Federal Reserve every other year. Category III organizations are subject to annual supervisory stress tests and must conduct company-run stress tests every other year (commonly referred to as Dodd-Frank Stress Tests or "DFAST"). These stress tests are used to determine whether the organizations have sufficient capital on a consolidated basis necessary to absorb losses in baseline and severely adverse economic conditions.
- *Resolution Planning.* Category III organizations, but not Category IV organizations, are required to submit to the Federal Reserve and the FDIC a plan for rapid and orderly resolution in the event of material financial distress or failure. Separately, FDIC regulations require IDIs with average total consolidated assets of $50 billion or more, such as the Bank, to submit a resolution plan with respect to the bank. In June 2021, the FDIC issued a Statement of Resolution Plans for Insured Depository Institutions, which, among other things, provided further details surrounding streamlined content requirements for IDI plan submissions, and established a three-year filing cycle for banks with $100 billion or more in assets. As a result, the Bank will submit a resolution plan on a three-year cycle beginning in 2022. The Bank submitted its resolution plan to the FDIC in December 2022.
- *Liquidity Requirements.* Category IV organizations with greater than $50 billion in WSTWF, as well as Category I-III organizations, are subject to LCR and net stable funding ratio ("NSFR") requirements and must maintain high-quality liquid assets in accordance with specific quantitative requirements. However, the above-mentioned Category IV organizations, as well as Category III organizations with less than $75 billion in WSTWF, are subject to reduced LCR and NSFR requirements. Category III organizations with greater than $75 billion in WSTWF and all Category I-II organizations are subject to the full LCR and NSFR requirements. As of December 31, 2022, we have less than $50 billion in WSTWF, therefore, we are currently not subject to LCR and NSFR requirements.
- *Single counterparty credit limit.* In June 2018, the Federal Reserve issued a final rule regarding single-counterparty credit limits ("SCCL") for large banking organizations, excluding Category IV organizations, subjecting them to a limit of 25% of Tier 1 capital for aggregate net credit exposures to any other unaffiliated counterparty. Given SVB Financial is a Category IV organization, we are not subject to the SCCL requirements.

In addition, if a Category IV organization exceeds $75 billion in cross-jurisdictional activity (as defined by the Federal Reserve), it will, subject to a transition period, become a Category II organization irrespective of the Category III thresholds described above. As of December 31, 2022, we had $59.9 billion in cross-jurisdictional activity. A Category II organization will be subject to all Category III requirements and certain additional requirements, including no opt out of excluding AOCI in calculating regulatory capital ratios, adopting an advanced approaches regulatory capital framework, more stringent liquidity reporting requirements and annual company-run stress testing (increased frequency than every other year for Category III organizations).

Regulatory Capital

U.S. banking organizations are subject to a comprehensive capital framework (the "Capital Rules"), issued by the federal banking agencies, which implement the Basel III regulatory capital reforms and changes required by the Dodd-Frank Act. "Basel III" refers to the internationally agreed regulatory capital framework adopted by the Basel Committee on Banking Supervision (the "Basel Committee").

The Capital Rules establish minimum risk-weighted capital ratios for CET1 capital, Tier 1 capital and total capital as well as a minimum leverage ratio. CET1 is defined as common stock, plus related surplus, and retained earnings plus minority interest in the form of common stock, subject to a limit, less certain regulatory deductions and adjustments. For most banking organizations, the most common form of Tier 1 capital (other than CET1) is noncumulative perpetual preferred stock and the

most common form of Tier 2 capital is subordinated debt and a portion of the allowance for loan and lease losses, in each case, subject to certain requirements. Total capital consists of Tier 1 capital and Tier 2 capital.

Under the Capital Rules, the minimum capital ratios applicable to SVB Financial and the Bank are as follows: 4.5% CET1 capital, 6.0% Tier 1 capital, 8.0% Total capital and 4.0% Tier 1 leverage. In addition, banking organizations must meet a 2.5% CET1 risk-based capital conservation buffer requirement in order to avoid constraints on capital distributions, such as dividends and equity repurchases, and certain bonus compensation for executive officers. The severity of the constraints would depend on the amount of the shortfall and the banking organization's "eligible retained income" (that is, four-quarter trailing net income, net of distributions and tax effects not reflected in net income). In March 2020, for BHCs with $100 billion or more in assets, such as SVB Financial, the Federal Reserve approved a final rule replacing the static 2.5% component of the capital conservation buffer with an organization-specific stress capital buffer ("SCB") requirement, reflecting stressed losses in the supervisory severely adverse scenario of the Federal Reserve's CCAR stress tests and including four quarters of planned common stock dividends, subject to a minimum 2.5% floor. During a year in which a Category IV organization, such as SVB Financial, does not undergo a supervisory stress test, the organization will receive an updated SCB that reflects the updated planned common stock dividends. A Category IV organization may also elect to participate in the supervisory stress test in a year in which the organization would not normally be subject to the supervisory stress test to receive an updated SCB.

If SVB Financial were to become a Category III or Category II organization, it would also be subject to (i) if deployed by the Federal Reserve, up to an additional 2.5% CET1 countercyclical capital buffer and (ii) a minimum supplementary leverage ratio of 3.0% that takes into account both on-balance sheet and certain off-balance sheet exposures. A Category II organization would additionally be subject to advanced approaches capital requirements.

The regulatory capital ratios of SVB Financial and the Bank currently exceed these levels, as shown in the following chart:

December 31, 2022	**SVB Financial**	**Bank**	**Required Ratio (1)**
CET1 risk-based capital	12.05 %	15.26 %	7.0 %
Tier 1 risk-based capital	15.40	15.26	8.5
Total risk-based capital	16.18	16.05	10.5
Tier 1 leverage	8.11	7.96	4.0

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(1) Percentages represent the minimum capital ratios plus, as applicable, the 2.5% CET1 capital conservation buffer under the Capital Rules.

The regulatory capital ratios of SVB Financial and the Bank also exceed the "well-capitalized" requirements under relevant regulations. Refer to Note 22—"Regulatory Matters" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report for more information.

In December 2017, the Basel Committee published standards to 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 establish a new standardized approach for operational risk capital. Under the current Capital Rules, operational risk capital requirements do not apply to non-advanced approaches banking organizations, such as SVB Financial and the Bank. The federal banking agencies have not yet implemented these revised standards, and their impact on SVB Financial and the Bank will depend on the manner in which they are implemented.

In light of the economic disruptions and operational challenges related to the COVID-19 pandemic, in 2020, the federal banking agencies adopted a rule that provided relief to banking organizations with respect to the impact of CECL on regulatory capital (the "2020 CECL Transition Rule"). Under the 2020 CECL Transition Rule, banking organizations that adopted CECL during the 2020 calendar year, such as SVB Financial and the Bank, were permitted to delay the estimated impact of CECL on regulatory capital until January 2022, followed by a three-year period ("Phase-out Period") to phase out the aggregate capital benefit provided during the initial two-year delay. The rule prescribes a methodology for estimating the impact of differences in credit loss allowances reflected under CECL versus under the incurred loss methodology during the five-year transition period. We elected to use the five-year transition option under the 2020 CECL Transition Rule. As of December 31, 2022, we completed the first year of the Phase-out Period resulting in a 25% reduction of the aggregate capital benefit.

Capital Planning

Banking organizations must have appropriate capital planning processes, with proper oversight from the boards of directors. The Federal Reserve expects bank holding companies, such as SVB Financial, to conduct and document comprehensive capital adequacy analyses prior to the declaration of any dividends (on common stock, preferred stock, or other Tier 1 capital instruments), capital redemptions or capital repurchases. Moreover, the federal banking agencies view the adequacy and effectiveness of a bank's interest rate risk management process and the level of its interest rate exposures as critical factors in the evaluation of the bank's capital adequacy. A bank with material weaknesses in its interest rate risk management process or high levels of interest rate exposure relative to its capital will be directed by the relevant federal banking agencies to take corrective actions.

As a Category IV organization, we are required to submit an annual capital plan to the Federal Reserve. The capital plans include an assessment of uses and sources of capital under various expected and stressed scenarios. A BHC's planned capital distributions in its annual capital plan submissions must be consistent with any effective distribution limitations that would apply under the organization's own baseline projections, including its SCB. SVB Financial's ability to make capital distributions would likely be impacted in the event that SVB Financial fails to maintain its SCB above its minimum CET1 risk-based, Tier-1 risk-based and total risk-based capital requirements. In addition, the Federal Reserve's capital plan rule related to the CCAR process also states that a BHC must receive prior approval for any dividend, stock repurchase, or other capital distribution, other than a capital distribution on a newly issued capital instrument, if the BHC is required to resubmit its capital plan. Among other circumstances, an organization may be required to resubmit its capital plan in connection with certain acquisitions or dispositions.

Proprietary Trading and Relationships with Certain Funds

The Volcker Rule, set out in section 13 of the BHC Act, restricts, among other things, bank holding companies and their affiliates from engaging in proprietary trading and from sponsoring, investing in, or having certain other relationships with certain privately offered funds, including certain hedge funds and private equity funds ("covered funds"). In 2017, we received notice that the Federal Reserve approved our application for an extension of the permitted conformance period for our investments in certain "illiquid" covered funds ("Restricted Volcker Investments"). The approval extended the deadline by which the Company must sell, divest, restructure or otherwise conform Restricted Volcker Investments to July 2022.

In 2019 and 2020, the Volcker Rule implementing agencies finalized rules amending the regulations implementing the Volcker Rule. The amendments, among other things, tailor compliance requirements based on the size of an organization's trading assets and liabilities, eliminate or adjust certain requirements to clarify permitted and prohibited activities, and provide for the adoption of new exclusions from the definition of "covered fund" for venture capital funds and credit funds that meet certain criteria. As a result of these amendments, we believe that substantially all of our Restricted Volcker Investments (i) qualify for these new exclusions, (ii) otherwise are excluded from the definition of "covered fund" or (iii) commenced or completed a liquidation or dissolution process prior to July 2022.

Prompt Corrective Action

State and federal banking agencies possess broad powers to take corrective and other supervisory action against an insured bank and its holding company. For example, an IDI is placed into one of five categories based on the level of its capital ratios: well-capitalized, adequately capitalized, undercapitalized, significantly undercapitalized and critically undercapitalized. At each successive lower capital category, an IDI is subject to more restrictions and prohibitions, including restrictions on growth, restrictions on interest rates paid on deposits, restrictions or prohibitions on payment of dividends and restrictions on the acceptance of brokered deposits. Based upon its capital levels, a bank that is classified as well-capitalized, adequately capitalized or undercapitalized may be treated as though it were in the next lower capital category if the appropriate federal banking agency, after notice and opportunity for hearing, determines that an unsafe or unsound condition or practice warrants such treatment.

Restrictions on Dividends

Dividends from the Bank constitute one of the primary sources of cash for SVB Financial. The Bank is subject to various federal and state statutory and regulatory restrictions on its ability to pay dividends, including applicable provisions of the California Financial Code and the federal prompt corrective action regulations. For example, the Bank may not, without approval of the Federal Reserve, declare or pay a dividend to SVB Financial if the total of all dividends declared in a calendar year exceeds the total of (i) the Bank's net income for that year and (ii) its retained net income for the preceding two calendar years, less any required transfers to additional paid-in capital or to a fund for the retirement of preferred stock. In addition, the banking agencies have the authority to prohibit the Bank from paying dividends, depending upon the Bank's financial condition, if such payment is deemed to constitute an unsafe or unsound practice.

It is the Federal Reserve's policy that bank holding companies should generally pay dividends on common stock only out of income available over the past year and only if prospective earnings retention is consistent with the organization's

expected future needs and financial condition. It is also the Federal Reserve's policy that bank holding companies should not maintain dividend levels that undermine their ability to be a source of strength to their banking subsidiaries. Under the prompt corrective action regulations, the Federal Reserve may prohibit a bank holding company from paying any dividends if the holding company's bank subsidiary is classified as "undercapitalized."

Transactions with Affiliates

Transactions between the Bank and its operating subsidiaries (such as SVB Asset Management or SVB Investment Services), on the one hand, and the Bank's affiliates (such as SVB Financial, SVB Securities or an entity affiliated with our SVB Capital business), on the other, are subject to statutory and regulatory restrictions designed to limit the risks to the Bank and its subsidiaries, including Sections 23A and 23B of the Federal Reserve Act and the Federal Reserve's Regulation W. These restrictions include quantitative and qualitative limits on the amounts and types of transactions with affiliates, including extensions of credit to affiliates, investments in the stock or securities of affiliates, purchases of assets from affiliates and certain other transactions with affiliates. In addition, credit transactions with affiliates must be collateralized, and transactions with affiliates must be on market terms or better for the Bank.

Premiums for Deposit Insurance

The FDIC insures our customer deposits through the DIF up to prescribed limits for each depositor. The FDIC has established a reserve ratio of 2% as a long-term goal, which goes beyond the statutorily mandated minimum of 1.35%, and may increase assessment rates in the future accordingly.

In October 2022, the FDIC issued a final rule increasing the initial base deposit insurance assessment rate schedules by two bps, beginning with the first quarterly assessment period of 2023. The FDIC established a plan in September 2020 so that the DIF reserve ratio meets or exceeds the statutory minimum of 1.35% by September 30, 2028. The increased assessment is in furtherance of this goal.

Consumer Regulations

The Bank is subject to many federal consumer protection statutes and regulations, such as the CRA, the Equal Credit Opportunity Act (Regulation B), the Electronic Fund Transfer Act (Regulation E), the Truth in Lending Act (Regulation Z), the National Flood Insurance Act, the Fair Credit Reporting Act (as amended by the Fair and Accurate Credit Transaction Act) and various federal and state privacy protection laws. The Bank and SVB Financial are also subject to federal and state laws prohibiting unfair, deceptive, abusive, corrupt or fraudulent business practices, untrue or misleading advertising and unfair competition. As a depository institution with more than $10 billion in total assets, the Bank is subject to examination by the CFPB. The CFPB's mandate is to promulgate consumer regulations and ensure that consumer financial practices at large banks, such as the Bank, comply with federal consumer financial protection requirements. The CFPB has broad enforcement authority, including investigations, civil actions, cease and desist proceedings and the ability to refer criminal findings to the Department of Justice. Penalties for violating these laws could include civil monetary penalties, remediation for affected consumers and orders to halt expansion or existing activities.

State and federal banking agencies and other such enforcement authorities have increased efforts to aggressively enforce consumer protection laws, implement regulations and take action against non-compliant parties.

Privacy and Cybersecurity

Data privacy and data protection are areas of increasing legislative focus. For example, the California Consumer Protection Act of 2018 (the "CCPA"), which became effective on January 1, 2020, applies to for-profit businesses that conduct business in California and meet certain revenue or data collection thresholds. The CCPA gives consumers the right to request disclosure of information collected about them, and whether that information has been sold or shared with others, the right to request deletion of personal information (subject to certain exceptions), the right to opt out of the sale of the consumer's personal information and the right not to be discriminated against for exercising these rights. The CCPA contains several exemptions, including an exemption applicable to information that is collected, processed, sold or disclosed subject to the federal Gramm-Leach-Bliley Act. The CCPA's requirements will be further expanded under the California Privacy Rights Act ("CPRA") as of January 1, 2023, with civil and administrative enforcement of the CPRA beginning July 1, 2023. Similar laws have been and may be adopted by other states where we do business, such as Colorado and Virginia, and the federal government may also pass data privacy or data protection legislation. In addition, in the European Union, the General Data Protection Regulation (the "GDPR") governs the processing of personal information. The GDPR applies not only within the European Union, but outside of the European Union to all companies processing data of EU data subjects who are in the European Union.

In November 2021, the federal banking agencies issued a final rule requiring banking organizations to notify their primary banking regulator as soon as possible and within 36 hours of determining that a "notification incident" has occurred. A notification incident is a "computer-security incident" that has materially disrupted or degraded, or is reasonably likely to materially disrupt or degrade, the banking organization's ability to carry out banking operations or deliver services to a material portion of its customer base, result in a material loss of revenue, profit, or franchise value, or impact the stability of the U.S. financial sector. The final rule also requires specific and immediate notifications by bank service providers that become aware of similar incidents. The final rule was effective April 1, 2022, with compliance required by May 1, 2022. In addition, in March 2022, the SEC proposed new rules that would require reporting material cybersecurity incidents on Form 8-K.

Anti-Money Laundering, Sanctions and Anti-Corruption Regulations

U.S. anti-money laundering laws and regulations, including the U.S. Bank Secrecy Act ("BSA") and the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 ("PATRIOT Act") and their corresponding regulations, require IDIs, broker-dealers, and certain other financial institutions to have policies, procedures and controls to detect, prevent and report money laundering and terrorist financing. The PATRIOT Act and its regulations also provide for information sharing, subject to certain conditions, between federal law enforcement agencies and financial institutions, as well as among financial institutions, for counter-terrorism purposes. Additionally, federal banking regulators are required, when reviewing bank holding company acquisition and bank merger applications, to consider the effectiveness of the anti-money laundering activities of the applicants.

In January 2021, the Anti-Money Laundering Act of 2020 ("AMLA"), which amends the BSA, was enacted. The AMLA is intended to comprehensively reform and modernize U.S. anti-money laundering laws. Among other things, the AMLA codifies a risk-based approach to anti-money laundering 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 June 2021, FinCEN issued the priorities for anti-money laundering and countering the financing of terrorism policy required under AMLA. The priorities include: corruption, cybercrime, terrorist financing, fraud, transnational crime, drug trafficking, human trafficking and proliferation financing. In September 2022, FinCEN issued a final rule regarding beneficial ownership information reporting, under which certain domestic and foreign reporting companies would file reports with FinCEN regarding their beneficial ownership. The final rule is effective on January 1, 2024 and FinCEN is expected to publish further guidance clarifying aspects of the final rule before its effective date.

In addition, we must comply with economic sanctions administered by the U.S. Treasury's Office of Foreign Assets Control and targeted against designated foreign countries, nationals and others. We are also subject to anti-corruption laws and regulations in the United States and internationally, including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act, which impose strict prohibitions on payments and hiring practices with regard to government officials and employees.

Material deficiencies in compliance with anti-money laundering and anti-corruption rules and sanctions regimes can result in public enforcement actions by the bank regulatory agencies and other government agencies, including civil money penalties and supervisory restrictions on growth and expansion.

Regulation of Certain Subsidiaries and Regulatory Affiliates

SVB Securities LLC (formerly known as SVB Leerink LLC), a subsidiary of SVB Securities, and SVB Investment Services Inc. (formerly SVB Wealth Advisory), a subsidiary of the Bank, are each registered as broker-dealers with the SEC and are members of FINRA, and are subject to regulation by both agencies. They are also members of the Securities Investor Protection Corporation. SVB Asset Management, SVB Wealth LLC (formerly Boston Private Wealth LLC) and funds management entities associated with SVB Securities LLC, a subsidiary of SVB Securities, are registered with the SEC under the Investment Advisers Act of 1940, as amended, and are subject to its corresponding regulations.

SVB Securities LLC and SVB Investment Services Inc. must comply with the financial responsibility rules governing broker-dealers, including Rule 15c3-1 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which is designed to measure the general financial condition and liquidity of a broker-dealer and seek to ensure its financial stability in light of its activities. Each of SVB Securities LLC and SVB Investment Services Inc. is required to maintain minimum net capital levels, which could, in the case of either entity, limit the ability for capital to be withdrawn or require a capital infusion to support growth in the business or new or ongoing activities.

Further, the Company has oversight responsibilities with respect to the regulatory compliance of certain unconsolidated subsidiaries and affiliates that the Company may be deemed to control for purposes of the BHC Act. In 2021, the Company restructured its relationships with Vouch Inc. and Bolster Networks, Inc. such that the Company believes it is no longer deemed to control either entity for purposes of the BHC Act.

Securities Registration and Listing

SVB Financial's common stock and Series A, B, C, D and E preferred stock are registered under the Securities Act of 1933, as amended. SVB Financial's common stock and Series A Depositary Shares are also listed on the Nasdaq Global Select Market. As such, SVB Financial is subject to the SEC's information, proxy solicitation, insider trading, corporate governance, and other public company requirements and restrictions as well as Nasdaq's Marketplace Rules and other requirements.

As a public company, SVB Financial is also subject to the accounting oversight and corporate governance requirements of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), including, among other things, required executive certification of financial presentations, increased requirements for board audit committees and their members and enhanced requirements relating to disclosure controls and procedures and internal controls over financial reporting.

International Regulation

Our international-based subsidiaries and offices and global activities, including our bank subsidiary in the U.K., banking branches in Germany, Canada and the Cayman Islands as well as our joint venture bank in China, are subject to the respective laws and regulations of those countries and the regions in which they operate. This includes laws and regulations promulgated by, but not limited to, the Financial Conduct Authority and the Prudential Regulation Authority in the U.K., the Office of the Superintendent of Financial Institutions in Canada, the German Federal Financial Supervisory Authority (BaFin), the China Banking and Insurance Regulatory Commission and the Cayman Islands Monetary Authority. Pursuant to U.K. regulatory requirements, Silicon Valley Bank restructured its U.K. branch into a separate bank subsidiary from August 1, 2022, as a result of our U.K. branch reaching £100 million of insured small business deposits.

To the extent we are able to commence operations in any other international market, we will also become subject to the regulatory regimes of those jurisdictions. In jurisdictions where we do not currently have certain licenses or other regulatory authorizations, our activities may be limited. Moreover, promulgation by standard-setting bodies that are charged with the development of international regulatory frameworks, such as the Basel Committee, can affect the Bank and SVB Financial globally as national regulators implement the frameworks in local jurisdictions.

Available Information

We make available free of charge through our Internet website, http://www.svb.com, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, 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 material is electronically filed with or furnished to the SEC. The contents of our website are not incorporated herein by reference and the website address provided is intended to be an inactive textual reference only.

ITEM 1A. RISK FACTORS

Our business faces material risks, including credit, market and liquidity, operational, legal and regulatory and strategic and reputational risks. The factors described below are not intended to serve as a comprehensive listing of the risks we face. Additional risks and uncertainties that we have not identified as material, or of which we currently are not aware, may also impair our business operations. If any of the events or circumstances described in the following factors occurs, our business, financial condition and/or results of operations could be materially and adversely affected.

Summary of Risk Factors

Credit Risks

- Because of the credit profile of our loan portfolio, our levels of nonperforming assets and charge-offs can be volatile, and we may need to make material provisions for credit losses in any period.
- Our ACL is determined based upon both objective and subjective factors, and may not be adequate to absorb any actual credit losses.
- The borrowing needs of our clients have been and may continue to be unpredictable, especially during a challenging economic environment. We may not be able to meet our unfunded credit commitments, or adequately reserve for losses, which could have a material adverse effect.

Market and Liquidity Risks

- Instability and adverse developments in national or global financial markets and overall economic conditions, including as a result of geopolitical matters, may materially affect our business, financial condition and results of operations.
- Our interest rate spread may decline further in the future. Any material reduction in our interest rate spread could have a material adverse effect on our business, results of operations or financial condition.
- Liquidity risk could impair our ability to fund operations and jeopardize our financial condition.

- Our equity warrant assets, venture capital and private equity fund investments and direct equity investment portfolio gains and losses depend upon the performance of our portfolio investments and the general condition of the public and private equity and M&A markets which are uncertain and may vary materially by period.
- Changes in the market for public equity offerings, M&A or a slowdown in private equity or venture capital investment levels have affected and may continue to affect the needs of our clients for investment banking or M&A advisory services and lending products, which could adversely affect our business, results of operations or financial condition.

Operational Risks

- Fraudulent activity could have a material adverse effect on our business, financial condition or results of operations.
- A data breach, disruption of service or other cybersecurity-related incident could have a material adverse effect on our business, financial condition or results of operations.
- We face risks associated with the ability of our IT systems and our people and processes to support our operations and future growth effectively.
- Business disruptions due to natural disasters and other external events beyond our control, including pandemics, have in the past adversely affected our business, financial condition or results of operations and may do so in the future.
- We face risks from a prolonged work-from-home arrangement as well as our implementation of a broader plan to return to the office.
- We face risks from our reliance on business partners, service providers and other third parties.
- The soundness of other financial institutions could adversely affect us.
- We depend on the accuracy and completeness of information about customers and counterparties.
- We face risks associated with our current international operations and ongoing international expansion.
- Our holding company, SVB Financial, relies on equity warrant assets income, investment distributions and dividends from its subsidiaries for most of its cash revenues.
- Climate change has the potential to disrupt our business and adversely impact the operations and creditworthiness of our clients.
- The COVID-19 pandemic created significant economic and financial disruptions that adversely affected certain aspects of our business and operations and such disruptions have the potential to reoccur.

Legal, Compliance and Regulatory Risks

- We are subject to extensive regulation that could limit or restrict our activities, impose financial requirements or limitations on the conduct of our business, or result in higher costs to us, and the stringency of the regulatory framework applicable to us may increase if, and as, our balance sheet continues to grow.
- As a bank holding company with more than $100 billion of average total consolidated assets, we are subject to stringent regulations, including certain enhanced prudential standards applicable to large bank holding companies. If we exceed certain other thresholds, we will become subject to even more stringent regulations.
- We face a risk of noncompliance and enforcement action with the Bank Secrecy Act, other anti-money laundering and anti-bribery statutes and regulations and U.S. economic and trade sanctions.
- If we were to violate, or fail to comply with, international, federal or state laws or regulations governing financial institutions, we could be subject to disciplinary action or litigation that could have a material adverse effect on our business, financial condition, results of operations or reputation.
- Laws and regulations regarding the handling of personal data and information may impede our services or result in increased costs, legal claims or fines against us.
- Adverse results from litigation or governmental or regulatory investigations can impact our business practices and operating results.
- A failure to identify and address potential conflicts of interest could adversely affect our businesses.
- Anti-takeover provisions and federal laws may prevent a merger or acquisition that may be attractive to stockholders and/or have an adverse effect on our stock price.

Strategic, Reputational and Other Risks

- We have experienced significant growth during 2021 and into 2022, including deposit growth. If we again experience deposit growth at a similar or greater rate than has occurred in the past, we may need to raise additional equity to support our capital ratios.
- Concentration of risk increases the potential for significant losses, while the establishment of limits to mitigate concentration risk increases the potential for lower revenues and slower growth.
- Decreases in the amount of equity capital available to our clients could adversely affect us.
- We face competitive pressures that could adversely affect our business, financial results, or growth.

- Our ability to maintain or increase our market share depends on our ability to attract and maintain, as well as meet the needs of, existing and future clients.
- We face risks in connection with our strategic undertakings and new business initiatives.
- We may fail to realize growth prospects and benefits anticipated as a result of the Boston Private acquisition.
- Any damage to our reputation and relationships could have a material adverse effect on our business.
- An ineffective risk management framework could have a material adverse effect on our strategic planning and our ability to mitigate risks and/or losses and could have adverse regulatory consequences.
- We do not currently pay dividends on shares of our common stock and may not do so in the future.

Credit Risks

Because of the credit profile of our loan portfolio, our levels of nonperforming assets and charge-offs can be volatile. We have and may in the future need to make material provisions for credit losses in any period, which could reduce net income, increase net losses or otherwise adversely affect our financial condition in that period.

Our loan portfolio has a credit profile different from that of most other banking companies. The credit profiles of our clients vary across our loan portfolio, based on the nature of our lending to different market segments.

Investor dependent loans. Many of our loans, particularly in our portfolios for early-stage and mid-stage privately held companies, are made to companies with modest or negative cash flows and/or no established record of profitable operations, primarily within the technology, life science and healthcare industries. Consequently, repayment of these loans is often dependent upon receipt by our borrowers of additional financing from venture capitalists or others, or in some cases, a successful sale to a third party, public offering or other form of liquidity or “exit” event. Conditions in the U.S. economy have caused certain client valuations to drop, thereby reducing the rate of financing or other “exit” events for certain clients, which has had and may continue to have an adverse effect on certain of our clients and their ability to repay their loans to us. If recessionary economic conditions develop, certain clients may experience difficulties sustaining their businesses over time. There can be no assurance that these companies will be able to continue to obtain funding at prior or current valuation levels, if at all, and valuations may drop, and in certain cases, have dropped, in a meaningful manner. This has impacted and may further impact the financial health of certain borrowers. Continued volatility in financial markets may make IPOs unavailable or less attractive to investors seeking an “exit” event. Further, we have seen venture investors provide financing in a more selective manner, at lower levels and/or on less favorable terms, if at all, all of which may have, and have had, an adverse effect on our borrowers’ ability to repay their loans to us.

Larger loans and syndicated loans. In addition, a significant portion of our loan portfolio is comprised of larger loans, which could increase the impact on us of any single borrower default. As of December 31, 2022, loans equal to or greater than $20 million to any single client (individually or in the aggregate) totaled $46.8 billion, or 63 percent of our portfolio. These larger loans have represented an increasing portion of our total loan portfolio over time. They include capital call lines of credit to our private equity and venture capital clients and SLBO loans, as well as other loans made to our later-stage and larger corporate clients, and that may be made to companies with greater levels of scale but also debt relative to their equity, balance sheet liquidity or cash flow. Additionally, we have continued our efforts to grow our loan portfolio by agenting or arranging larger syndicated credit facilities and participating in larger syndicates agented by other financial institutions. In those arrangements where we do not act as the lead syndicate agent, our control or decision-making ability over the credit facility is typically limited to our participation interest.

Loans dependent on third parties. The repayment of financing arrangements we enter into with our clients may be dependent on the financial condition or ability of third parties to meet their payment obligations to our clients. For example, we enter into formula-based financing arrangements that are secured by our clients’ accounts receivable from third parties with whom they do business. We make loans secured by letters of credit issued by third party banks and enter into letters of credit discounting arrangements, the repayment of which may be dependent on reimbursement by third party banks. We extend recurring revenue-based lines of credit, where repayment may be dependent on borrowers’ revenues from third parties. We also extend project financing to solar and other renewable energy providers, where repayment may be dependent on factors related to renewable energy generation, construction and access to take-out sources of financing, including tax credit equity. Further, in our loan portfolio of private equity and venture capital firm clients, many of our clients have lines of credit, the repayment of which is dependent on the payment of capital calls or management fees by the underlying limited partner investors in the funds managed by these firms. These capital call lines of credit are a significant portion of our loan portfolio (capital call lines of credit represent more than half of our loan portfolio as of the end of 2022, and may in future periods increase). These third parties may not be able to meet their financial obligations to our clients or to us, which, ultimately, could have an adverse impact on us.

Technology, life science and healthcare industries. Because of the intense competition and rapid technological change that characterize the technology, life science and healthcare industry sectors in which most of our borrowers reside, as well as periodic volatility in the market prices for securities of companies in these industries, the financial position of a borrower in the technology, life science and healthcare industry can deteriorate rapidly. Collateral for many of our loans often includes intellectual property and other intangible assets, which are difficult to value and may not be readily salable in the case of default. As a result, even if a loan is secured, we may not be able to fully recover the amounts owed to us, if at all.

Wineries and vineyards. In addition, we lend to premium wineries and vineyards through SVB's Wine Division, a component of SVB Private. Repayment of loans made to these clients may be dependent on overall wine demand and sales, or other sources of financing or income which may be adversely affected by a challenging economic environment, as well as the value of underlying real estate and non-real estate collateral, overall grape supply and income from tourism which may be adversely affected by climate change, poor weather, heavy rains, flooding, droughts, fires, wildfires, earthquakes, pandemics or other natural or catastrophic conditions. For example, our premium wine industry clients have been and may in the future continue to be impacted by the loss of restaurant and winery sales as a result of effects related to the COVID-19 pandemic.

Loans to individuals. We also lend to individual investors, executives, entrepreneurs or other influencers in the innovation economy, primarily through SVB Private, a division of the Bank. These individual clients may face difficulties meeting their financial commitments, especially in a challenging economic environment, and may be unable to repay their loans, and these difficulties may be more acute if accompanied by a decline in real estate values. In certain instances, we may also relax loan covenants and conditions or extend loan terms to individual borrowers who are experiencing financial difficulties. While such determinations are based on an assessment of various factors, including access to additional capital in the near term, there can be no assurance that such continued support will result in any individual borrower meeting his or her financial commitments. Additionally, certain clients may prepay the principal amount of their loans. If we are unable to lend those funds to other borrowers or invest the funds at the same or higher interest rates, our financial performance may be adversely impacted.

Commercial real estate loans. We acquired a portfolio of CRE loans as part of the Boston Private acquisition. CRE loans may lack standardized terms and may include a significant principal balance or “balloon” payment due on maturity. CRE loans may involve a higher risk of default compared to our other types loans as a result of several factors, including prevailing economic conditions and volatility in real estate markets, occupancy, rental collections, interest rates and collateral value. Additionally, the continued adverse impacts of the COVID-19 pandemic and long-term work-from-home arrangements on the commercial real estate sector, including retail stores, hotels and office buildings, creates greater risk exposure for our CRE loan portfolio.

Based on the credit profile of our overall loan portfolio, our level of nonperforming loans, loan charge-offs and ACL can be volatile and can vary materially from period to period. Increases in our level of nonperforming loans, the acquisition of PCD loans, increases in loan charge-offs, changes to underlying portfolio composition or changes in economic forecasts may require us to increase our provision for credit losses in any period, which could reduce our net income or cause net losses in that period. The resurgence of COVID-19, a continued or future economic downturn or recession, or other unforeseen events may cause our clients to be unable to pay their loans as they come due or decrease the value of collateral, such as accounts receivable, which could cause us to materially increase our ACL or incur credit losses in excess of the allowance in future periods. For instance, during the first half of 2020 in response to the onset of the COVID-19 pandemic, we significantly increased our ACL. Additionally, such increases in our level of nonperforming loans, loan charge-offs, changes to underlying portfolio composition or changes in economic forecasts may also have an adverse effect on our capital ratios, credit ratings and market perceptions of us. See “Loans” under “Management’s Discussion and Analysis of Financial Condition and Results of Operations - Consolidated Financial Condition” under Part II, Item 7 of this report.

Our ACL is determined based upon both objective and subjective factors, and may not be adequate to absorb credit losses.

As a lender, we face the risk that our borrower clients will fail to repay their loans when due. If borrower defaults cause large aggregate losses, it could have a material adverse effect on our business, results of operations or financial condition. We reserve for such losses by establishing an ACL, the increase of which results in a charge to our earnings as a provision for credit losses. Although we have established an evaluation process designed to determine the adequacy of our ACL that uses historical and other objective information reflective of the classification of loans, the establishment of credit losses are also dependent on macroeconomic forecasts as well as the subjective experience and judgment of our management. Actual losses are difficult to forecast, especially if such losses stem from factors beyond our historical experience or are otherwise inconsistent with our credit quality assessments. There can be no assurance that our ACL will be sufficient to absorb future credit losses or prevent a material adverse effect on our business, financial condition or results of operations.

Our ability to accurately forecast estimated credit losses depends on whether our credit loss model and related inputs correspond to actual loss rates.

Banking regulators, as part of their supervisory function, periodically review our methodology, models and the underlying assumptions, estimates and assessments we make in determining the adequacy of our ACL. These regulators may conclude that changes are necessary, which could impact our overall credit portfolio. Such changes could result in, among other things, modifications to our methodology or models, reclassification or downgrades of our loans, increases in our ACL or other credit costs, imposition of new or more stringent concentration limits, restrictions in our lending activities and/or recognition of further losses.

The borrowing needs of our clients have been and may continue to be unpredictable, especially during a challenging economic environment. We may not be able to meet our unfunded credit commitments, or adequately reserve for losses associated with our unfunded credit commitments, which could have a material adverse effect on our business, financial condition, results of operations or reputation.

A commitment to extend credit is a formal agreement to lend funds to a client as long as the conditions established under the agreement have been satisfied. The actual borrowing needs of our clients under these credit commitments have historically been lower than the contractual amount of the commitments. As a result, we typically have a substantial amount of total unfunded credit commitments reflected off our balance sheet, and a significant portion of these commitments ultimately expire without being drawn upon. See Note 21-“Off-Balance Sheet Arrangements, Guarantees and Other Commitments” of the “Notes to the Consolidated Financial Statements” under Part II, Item 8 of this report for additional details. However, the actual borrowing needs of our clients may exceed our expected funding requirements. For example, our client companies may be more dependent on our credit commitments in a challenging economic environment due to the lack of available credit elsewhere, the increasing costs of credit through other channels, or the limited availability of financings from private equity or venture capital firms, such as occurred at the onset of the COVID-19 pandemic, when certain clients increased utilization of credit lines to secure liquidity. In addition, limited partner investors of our private equity and venture capital fund clients may fail to meet their underlying investment commitments due to liquidity or other financing difficulties, which may impact our clients' borrowing needs. Any failure to meet our unfunded credit commitments in accordance with the actual borrowing needs of our clients may have a material adverse effect on our business, financial condition, results of operations or reputation.

Further, although we have established a reserve for losses associated with our unfunded credit commitments, the level of the reserve is determined by a methodology that is similar to that used to establish our ACL in our funded loan portfolio. The reserve is susceptible to significant changes and is primarily based on credit commitments less the amounts that have been funded, the amount of the unfunded portion that we expect to be utilized in the future, credit quality of the loan credit commitments and management's estimates and judgment. There can be no assurance that our allowance for unfunded credit commitments will be adequate to provide for actual losses associated with our unfunded credit commitments. An increase in the allowance for unfunded credit commitments in any period may result in a charge to our earnings, which could reduce our net income or increase net losses in that period.

Market and Liquidity Risks

Instability and adverse developments in national or global financial markets and overall economic conditions, including as a result of geopolitical matters, may materially affect our business, financial condition and results of operation.

We generate revenue from, among other things, the interest and fees we charge on our loan portfolio, securities held in our investment portfolio, underwriting, investment and advisory fees and other products and services we offer and sell. Our business is affected by national and global economic conditions, which may change suddenly, as well as perceptions of those conditions and future economic prospects, such as concerns over a potential recession. If recessionary economic conditions develop, they would likely have a negative financial impact across the financial services industry, including on us. Changes in broader economic conditions are not predictable and cannot be controlled. Negative effects to our business, and corresponding revenue streams, may arise from low levels of or declines in economic growth, decreases in private equity and venture capital investment, changes in client spending or borrowing patterns, limitations on the availability or increases in the cost of credit and capital, a decrease in M&A activity or public equity activity, high levels of inflation, uncertainty with respect to U.S. fiscal, monetary and political matters, including concerns about deficit and debt levels, rising benchmark interest rates, taxes and U.S. debt ratings. Moreover, geopolitical matters, including international political unrest or disturbances, including the war in Ukraine, as well as strains on diplomatic relations affecting the U.S. and other countries and restrictions on international trade, may impact the stability of financial markets and the global economy. Any impacts to the global economy could have a similar impact to the U.S. economy. A prolonged period of slow growth in the U.S. or global economy or any deterioration in general economic conditions and/or the financial markets resulting from the above matters, for example, could result in reductions to our net income, or require us to charge off a higher percentage of loans and increase the provision for credit losses, and otherwise have a material adverse effect on our business, financial condition and results of operations.

Our interest rate spread may further decline in the future. Any material reduction in our interest rate spread could have a material adverse effect on our business, results of operations or financial condition.

A significant portion of our net income comes from our interest rate spread, which is the difference between the interest rates paid by us on interest-bearing liabilities, such as deposits and wholesale borrowings, and the interest rates and fees we receive on our interest-earning assets, such as loans extended to our clients, securities held in our investment portfolio and excess cash held to manage short-term liquidity. Our interest rate spread can be affected by the mix of loans, investment securities, deposits and other liabilities on our balance sheet, as well as a variety of external factors beyond our control that affect interest rate levels, such as competition, inflation, recession, global economic disruptions, unemployment and the fiscal and monetary policies of various governmental bodies, such as the Federal Reserve. For example, changes in key variable market interest rates, such as the Federal Funds, National Prime ("Prime"), LIBOR, SOFR or Treasury rates, generally impact our interest rate spread. While changes in interest rates do not generally produce equivalent changes in the revenues earned from our interest-earning assets and the expenses associated with our interest-bearing liabilities, increases in market interest rates may cause, and have caused, our interest rate spread to increase, at least temporarily. Conversely, if interest rates decline, our interest rate spread may decline.

The Federal Reserve raised benchmark interest rates throughout 2022 and may continue to raise interest rates in response to economic conditions, particularly inflationary pressures. Continued increases in interest rates to combat inflation or otherwise may have unpredictable effects or minimize gains on our interest rate spread. For example, increases in interest rates may result in increases in the number of delinquencies, bankruptcies or defaults by clients and more nonperforming assets and net charge-offs, decreases in deposit levels, decreases to the demand for interest rate-based products and services, including loans, changes to the level of off-balance sheet market-based investments preferred by our clients, and a change in the mix of our noninterest and interest-bearing accounts, each of which may reduce our interest rate spread. Further, increases in short-term interest rates have in the past increased, and may in the future increase, the Company's cost of short-term funding. On the other hand, if the Federal Reserve reverses its course and lowers the target Federal Funds rate, low rates could constrain our interest rate spread and may adversely affect our business forecasts. In addition to affecting interest rate spreads, increased interest rates can have a material effect on the Company's business and profitability in other ways, including by decreasing the value of the Company's investment securities, shifting our deposit mix in favor of interest-bearing deposits, and/or increasing the frequency of pricing of interest-bearing deposits. For instance, increases in interest rates have resulted, and may continue to result in, decreases in the fair value of our AFS fixed income investment portfolio and increases in the pricing frequency and proportion of interest-bearing deposits, while unrealized losses to our HTM fixed income investment portfolio may, among other effects, make an acquisition of the Company more costly or less likely. We are unable to predict changes in interest rates, which are affected by factors beyond our control, including inflation, deflation, recession, unemployment, money supply, and other changes in financial markets.

Changes in the method of determining LIBOR or other reference rates, or uncertainty related to such potential changes, may adversely affect the value of reference rate-linked debt securities that we hold or issue, which could further impact our interest rate spread. The Chief Executive of the Financial Conduct Authority, which regulates LIBOR, and the ICE Benchmark Administration, the administrator of LIBOR, announced that the most commonly used tenors of USD LIBOR would cease to be provided or cease to be representative after June 30, 2023.

In March 2022, the Adjustable Interest Rate (LIBOR) Act (the "LIBOR Act") was enacted, providing a uniform approach for replacing LIBOR as a reference interest rate in so-called "tough legacy" contracts. Tough legacy contracts are contracts that do not include effective fallback provisions, for example, because they have no provisions for a replacement benchmark. Under the LIBOR Act, references to the most common tenors of LIBOR in these contracts will be replaced automatically to reference a SOFR-based benchmark interest rate identified in Federal Reserve regulations. In December 2022, the Federal Reserve issued final regulations identifying benchmark replacements, based on SOFR, for various types of contracts subject to the LIBOR Act.

In addition to the LIBOR Act, regulators, industry groups and certain committees (for example, the ARRC) have published recommended fallback language for LIBOR-linked financial instruments, identified recommended alternatives for certain LIBOR rates (e.g., the SOFR as the recommended alternative to U.S. Dollar LIBOR) and proposed implementations of the recommended alternatives in floating rate instruments. At this time, it is not possible to predict whether these recommendations and proposals will be broadly accepted in their current form, whether they will continue to evolve and what the ultimate effect of their implementation may be on the markets for floating-rate financial instruments. The transition from LIBOR reference rates to an alternative reference rate will be complex and unpredictable and give rise to a variety of risks, including operational risks, increased operational and compliance costs, the potential for customer disputes and litigation and regulatory scrutiny.

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

Liquidity is essential to our business, both at the SVB Financial and the Bank level. We require sufficient liquidity to meet our expected financial obligations, as well as unexpected requirements stemming from client activity and market changes, such as the unexpected cash outflows that occurred at the onset of the COVID-19 pandemic when certain clients increased utilization of their credit lines or future increases in credit utilization by our private equity and venture capital clients as economic conditions improve. Primary liquidity resources for SVB Financial include: (i) dividends from the Bank, to the extent declared (ii) periodic capital markets transactions offering debt and equity instruments in the public and private markets and (iii) the Company's portfolio of liquid assets. The primary source of funding for the Bank is client deposits, a majority of which are maintained in cash and highly liquid assets. Our deposit growth has slowed in the latter half of 2022 from the rapid growth seen in the 18 months prior, and a reduced level of deposits may affect our liquidity. Decreases in the amount of equity capital available to early-stage and mid-stage companies, including through a decrease in M&A activity or public equity activity, may further slow deposit growth, as we derive a meaningful share of our deposits from these companies. Reductions to our level of deposits may place more pressure on finding supplemental sources of liquidity.

When needed, our liquidity is supplemented by wholesale borrowing capacity in the form of short- and long-term borrowings secured by our portfolio of high-quality investment securities, long-term capital market debt issuances and unsecured overnight funding channels available to us in the Federal Funds market. An inability to maintain or raise funds through these sources could have a substantial negative effect, individually or collectively, on SVB Financial and the Bank's liquidity. Our access to funding sources in amounts adequate to finance our activities, or on terms attractive to us, could be impaired by factors that affect us specifically or the financial services industry in general. For example, factors that could detrimentally impact our access to liquidity sources include a decrease in the level of our business activity due to a market downturn or adverse regulatory action against us, a downturn in asset markets such that the collateral we hold cannot be realized or is liquidated at prices not sufficient to recover the full amount of our secured obligations, a reduction in our credit rating, any damage to our reputation or any other decrease in depositor or investor confidence in our creditworthiness and business. Our access to liquidity could also be impaired by factors that are not specific to us, such as laws and regulations that limit the amount of intercompany dividends that bank subsidiaries may pay, severe volatility or disruption of the financial markets or negative views and expectations about prospects for the financial services industry as a whole. Any such event or failure to manage our liquidity effectively could affect our competitive position, increase our borrowing costs and the interest rates we pay on deposits, limit our access to the capital markets and have a material adverse effect on our financial condition.

Our equity warrant assets, venture capital and private equity fund investments and direct equity investment portfolio gains and losses depend upon the performance of our portfolio investments and the general condition of the public and private equity and M&A markets, which are uncertain and may vary materially by period.

In connection with negotiated credit facilities and certain other services, we often obtain equity warrant assets giving us the right to acquire stock in private, venture-backed companies primarily in the technology, life science and healthcare industries subject to applicable regulatory limits and, in some cases, we retain equity interests in these companies following their initial public offering. We have also made investments through SVB Financial, SVB Securities and our SVB Capital family of funds in venture capital funds and direct investments in companies. We may enter into hedging arrangements with respect to some of the SVB Capital equity positions; many of these interests are required to be carried at fair value and may be impacted by changes in fair value. The fair values of these warrants and investments are reflected in our financial statements and are adjusted on a quarterly basis. Fair value changes are recorded as unrealized gains or losses through consolidated net income. However, the timing and amount of changes in fair value, if any, of these financial instruments depends on factors beyond our control, including the perceived and actual performance of the companies or funds in which we invest, fluctuations in the market prices of the preferred or common stock of the portfolio companies, the timing of our receipt of relevant financial information from these companies, market volatility and interest rate fluctuations and legal and contractual restrictions.

If recessionary economic conditions develop, they would likely have a negative financial impact across the financial services industry, including on SVB Financial. A recession would likely have a negative financial impact on our equity warrant assets, venture capital and private equity fund investments and direct equity investment portfolio, in addition to exacerbating adverse effects discussed throughout this "Risk Factors" section. Additionally, other macroeconomic factors beyond our control, including the COVID-19 pandemic, inflationary trends, financial markets volatility and geopolitical issues and events, such as the war in Ukraine, have and may continue to adversely impact the value of our investments. Moreover, the timing and amount of our realization of actual net proceeds, if any, from our disposition of these financial instruments also often depend on factors beyond our control. In addition to those mentioned above, such factors include the level of public offerings, and M&A or other exit activity, legal and contractual restrictions on our ability to sell our equity positions (including the expiration of any "lock-up" agreements) and the timing of any actual dispositions. The net proceeds we receive from these financial instruments, and our financial statements more generally, may also be affected by hedging arrangements we may enter into with respect to such instruments. Because of the inherent variability of these financial instruments and the markets in which they are bought and sold, their fair market value might increase or decrease materially from period to period, and the net proceeds ultimately realized upon disposition might be materially different than the then-current recorded fair market value.

In addition, depending on the fair value of these warrants and direct equity investments, a meaningful portion of the aggregate fair value of our total warrant and direct equity investment portfolios may, from time to time, be concentrated in a limited number of warrants and direct equity investments. Valuation changes in one or more of these warrants or direct equity investments (or any potential related hedging transactions) may have a material impact on our financial statements and the valuation of our total investment portfolio. Moreover, because valuations of private companies are inherently uncertain, may fluctuate over short periods of time and may be based on estimates, our determinations of fair value for private companies may differ materially from the values that would have been used if a ready market for these securities existed. Therefore, fair value determinations may materially understate or overstate the value that we ultimately realize upon the sale of one or more investments. We cannot predict future realized or unrealized gains or losses, and any such gains or losses are likely to vary materially from period to period. See Note 16—"Derivative Financial Instruments" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report for additional details.

Changes in the market for public equity offerings, M&A or a slowdown in private equity or venture capital investment levels have affected and may continue to affect the needs of our clients for investment banking or M&A advisory services and lending products, which could in turn adversely affect our business, results of operations or financial condition.

While an active market for public equity offerings, financings and M&A activity generally has positive implications for our business, one negative consequence is that our clients may pay off or reduce their loans with us if they complete a public equity offering, are acquired by or merge with another entity or otherwise receive a significant equity investment.

By contrast, a low demand for public equity or M&A transactions or an inability to complete such transactions due to events affecting market conditions generally, could result in fewer transactions overall and therefore decrease revenues of SVB Securities, our investment banking business, as such revenues stem primarily from underwriting and advisory fees associated with capital markets and M&A transactions. A relative decline in public equity and M&A transactions in 2022, when compared to the strong capital markets activity in the healthcare and technology sectors in 2021, has contributed to decreased revenues of SVB Securities.

Further, a slowdown in overall private equity or venture capital investment levels may reduce the need for our clients to borrow from our capital call lines of credit, which are typically utilized by our private equity and venture capital fund clients to make investments prior to receipt of capital called from their respective limited partners. Any significant reduction in the outstanding amounts of our loans or under our lines of credit could have a material adverse effect on our business, results of operations or financial condition.

Operational Risks

Fraudulent activity could have a material adverse effect on our business, financial condition or results of operations.

As a financial institution, we are susceptible to traditional or cyber-related fraudulent activity that could be committed against us, our clients or our third-party partners, which may result in financial losses or increased costs to us or our clients, litigation or damage to our reputation. Such fraudulent activity may take many forms, including credit fraud, check fraud, electronic fraud, wire fraud, phishing, social engineering, business email compromise, or other dishonest acts. For example, in 2021 and as disclosed in previous filings, we incurred an $80 million charge-off related to fraudulent activity. In recent periods, there continues to be a rise in electronic fraudulent activity, security breaches and cyberattacks within the financial services industry, especially in the commercial banking sector due to cyber criminals targeting commercial bank accounts.

Consistent with industry trends, we remain at risk for attempted electronic fraudulent activity which may increase in the future as we increase our mobile, digital and internet-based product offerings and expand our internal use of internet-based products and applications. In recent periods, large corporations (including financial institutions and retail companies), as well as U.S. governmental agencies, have suffered significant data breaches or malware attacks, in some cases exposing not only confidential and proprietary corporate information, but also sensitive financial and other personal information of their customers and employees and subjecting them to potentially fraudulent activity. Some of our clients may have been affected by these breaches, which increase their risks of identity theft, credit card fraud and other fraudulent activity that could involve their accounts with us, which could subject us to potential liability. Furthermore, SVB's cardholders use their debit and credit cards to make purchases from third parties or their third-party processing services. As such, SVB is subject to risk from data breaches of such third party's information systems or their payment processors, for reasons including unauthorized card use or other fraudulent activity. Such data security breaches from fraudulent activity or otherwise could compromise SVB's account information, cause losses on card accounts and increase litigation costs. SVB may suffer losses associated with reimbursing our customers for fraudulent transactions on customers' card accounts, as well as for other costs related to data security breaches, such as replacing cards associated with compromised card accounts.

A data breach, disruption of service or other cybersecurity-related incident could have a material adverse effect on our business, financial condition or results of operations.

Data breaches, sabotage, extortion, or other unauthorized activity may be committed against us, our clients or our third-party partners, which may result in financial losses or increased costs to us or our clients, disclosure or misuse of our information or our client information, misappropriation of assets, privacy breaches against our employees or clients, litigation or damage to our reputation. Such activity may include phishing, social engineering, business email compromise, ransomware, malfeasance and other dishonest acts. Incidents may also be a result of human errors or mistakes unintentionally caused by us.

Information pertaining to us and our clients is maintained, and transactions are executed, on our networks and systems, as well as those of our clients and certain of our third-party partners, such as our online banking or reporting systems. The secure maintenance and transmission of confidential information, as well as execution of transactions over these systems, are essential to protect us and our clients against fraud and security breaches and to maintain our clients' confidence. Breaches of information security also may occur, and in infrequent cases have occurred, through intentional or unintentional acts by those having access to our systems or our clients' or counterparties' confidential information, including employees and third-party contractors. In addition, SVB provides card transaction processing services to some merchant customers under agreements we have with those merchants and/or with the payment networks. Under these agreements, we may be responsible for certain losses and penalties if one of our merchant customers suffers a data security breach.

We also offer certain services that allow non-accountholders to process payments through SVB's systems, as well as financial analytics services. In the course of providing those services, we may obtain sensitive data about customers who do not otherwise hold accounts with us, including information regarding accounts held at other institutions, as well as profit and loss and other proprietary financial or other information regarding our customers or the non-accountholders they service. In the event of a data breach, this sensitive information may be exposed and could subject us to claims for damages.

In addition, increases in criminal activity levels and sophistication, advances in computer capabilities, ongoing work-from-home arrangements for our employees, integrating new employees into the Company, vulnerabilities in third-party technologies and services (including cloud computing and storage, computing hardware, browsers and operating systems) or other developments could result in a compromise or breach of the technology, processes and controls that we use to protect data about us, our clients and underlying transactions, as well as the technology used by our clients to access our systems. The forms, methods and sophistication of security breaches, cyberattacks and other similar criminal activity continue to evolve, and as we evolve and grow our business, especially in new business lines or geographic areas, we may be unable to foresee future risks. Although we have developed, and continue to invest in, systems and processes that are designed to detect and prevent security breaches and cyberattacks and periodically test our security and effectiveness of our cyber incident response plans, our risk mitigation strategies and internal controls, including risk assessment policies and procedures, testing, backup and redundancy systems, incident response plans, training and authentication or encryption tools, may not be effective against defending against fraud, security breaches or cyberattacks, and any insurance we maintain may not be sufficient to compensate us for all losses that may occur. Our inability to anticipate, or failure to adequately mitigate, fraudulent activities, breaches of security or cyberattacks could result in: (i) financial losses to us or our clients, (ii) our loss of business and/or clients, (iii) loss or exposure of our confidential data or information, (iv) damage to our reputation, (v) the incurrence of additional expenses, (vi) loss of personnel, (vii) disruption to our business, (viii) force majeure claims by us or critical suppliers, (ix) our inability to grow our online services or other businesses, (x) additional regulatory scrutiny or penalties or (xi) our exposure to civil litigation and possible financial liability. Further, as an investigation into a cyber-incident is inherently unpredictable, it may take a significant amount of time for the Company to fully uncover the scope of and damage related to a cyber-incident and develop an effective mitigation plan. During such time, damage related to a cyber-incident may continue and communications to the public, customers, regulators and other stakeholders may not be timely or accurate. Potential new regulations may require us to publicly disclose information about a cyber-incident before the incident has been resolved or fully investigated.

We face risks associated with the ability of our IT systems and our people and processes to support our operations and future growth effectively.

Our IT systems, the data stored in those systems, people and internal business processes are critical to our operations and future growth, and have been critical to our continued operations as we have implemented work-from-home arrangements and onboarded a majority of new employees in a remote work environment. Our systems may be subject to service outages from time to time due to various reasons, including infrastructure failures, interruptions due to system upgrades or malware removal, employee error or malfeasance, or other force majeure-related reasons (such as potential blackouts or brownouts in California), which could cause business disruption. Further, the functionality and reliability of our IT systems may be compromised if the data contained in those systems is inaccurate, outdated or corrupt. Additionally, our systems and processes need to be sufficiently scalable to operate effectively, and we need to have the appropriate talent and organizational structures to support our business. Many of our systems and processes are interdependent and interconnected, meaning that a service outage or operational inefficiency with respect to one system or process could negatively impact other systems or processes. As a result, we continue to invest in technology and more automated solutions in order to optimize the efficiency of our core operational and administrative infrastructure. In the absence of having effective automated solutions, we have and may continue to rely on manual processes which may be more prone to error. Moreover, as we evolve, we may further install or implement new systems and processes or otherwise replace, upgrade or make other modifications to our existing systems and processes. These changes could be costly and require significant investment in the training of our employees and other third-party partners, as well as impose substantial demands on management time. If we do not implement new initiatives or utilize new technologies effectively or in accordance with regulatory requirements, or if our people (including outsourced business partners) are not appropriately trained or developed or do not perform their functions properly or have the appropriate resources to do so, we could experience business interruptions or other system failures which, among other things, could result in inefficiencies, revenue losses, loss of clients, employee dissatisfaction, exposure to fraudulent activities, regulatory enforcement actions or damage to our reputation, each of which could have a material adverse effect on our business.

Business disruptions and interruptions due to natural disasters and other external events beyond our control, including pandemics, have in the past adversely affected our business, financial condition or results of operations and may do so in the future.

Our operations can be subject to natural disasters and other external events beyond our control, such as the effects of earthquakes, fires, floods, severe weather, public health issues such as COVID-19 or other diseases, power failures, telecommunication loss, major accidents, terrorist attacks, acts of war, political, economic and social unrest and other natural and man-made events, some of which may be intensified by the effects of climate change and changing weather patterns. For example, our corporate headquarters and some of our critical business offices are located in California, which has experienced major wildfires and blackouts and is located over major earthquake fault lines. We also maintain critical business facilities in Texas, which has experienced severe weather conditions, major blackouts and water service disruptions. Additionally, we conduct certain finance, human resources and technology and loan operations in India, which has experienced severe weather conditions, floods and public health issues, including as a result of the COVID-19 pandemic. Furthermore, climate change, the increasing frequency or severity of weather events, an earthquake or other disaster could cause severe destruction, disruption or interruption to our operations or property and significantly impact our employees and could damage, destroy or otherwise reduce the value of collateral, which could materially increase our credit losses. More recently, the COVID-19 pandemic has had direct effects on our operations, including by limiting employee travel and increasing telecommuting arrangements. We may experience negative effects of prolonged work-from-home arrangements that continue to be in effect, such as increased risks of systems access or connectivity issues, cybersecurity or information security breaches, and challenges our employees may face in maintaining a balance between work and home life, which may lead to reduced productivity and/or significant disruptions in our business operations.

We and other financial institutions generally must resume operations promptly following any interruption. If we were to suffer a disruption or interruption and were not able to resume normal operations within a period consistent with industry standards, our business, financial condition or results of operations could be adversely affected in a material manner. In addition, depending on the nature and duration of the disruption or interruption, we might become vulnerable to fraud, additional expense or other losses, or to a loss of business and clients. Although we have implemented a business continuity management program that we continue to enhance on an ongoing basis, there can be no assurance that the program will adequately mitigate the risks of such business disruptions and interruptions.

Additionally, natural disasters and external events, including but not limited to those that have occurred and may occur in and around California, have affected, and could in the future affect, the business and operations of our clients, which could impair their ability to repay their loans or fees when due, impair the value of collateral securing their loans, cause our clients to reduce their deposits with us, or otherwise adversely affect their business dealings with us, any of which could have a material adverse effect on our business, financial condition or results of operations. A portion of our client borrowers, including our premium winery and vineyard clients, our SVB Private mortgage clients and other corporate clients, are located in or have offices in California, which has historically experienced severe natural disasters resulting in disruptions to businesses and damage to property, including wildfires and earthquakes. If there is a major earthquake, flood, fire, drought or other natural or catastrophic disaster in California or elsewhere in the markets in which we operate due to climate change or otherwise, our borrowers may experience uninsured property losses or sustained disruption to business or loss that may materially impair their ability to meet the terms of their loan obligations.

We face risks from a prolonged work-from-home arrangement as well as our implementation of a broader plan to return to the office.

Currently, our employees work remotely most of the time. Our long-term plan is to maintain a flexible working arrangement where employees will go to an office on a frequency based on an employee's role and function. Although our work-from-home plan has been effective thus far, we may experience negative effects of a prolonged work-from-home arrangement, such as increasing risks of systems access or connectivity issues, cybersecurity or information security breaches, difficulties integrating new employees, reduced team collaboration, or imbalances between work and home life, which may lead to reduced productivity and/or significant disruptions in our business operations.

We face reputation and business risks due to our reliance on business partners, service providers and other third parties.

As a financial institution with domestic and international operations, we rely on third parties, both in the United States and internationally in countries such as the U.K., Denmark, Germany, Ireland, Israel, China, Hong Kong, India, Sweden and Canada to provide services to us and our clients or otherwise act as partners in our business activities in a variety of ways, including through the provision of key components of our business infrastructure. We expect these third parties to perform services for us, fulfill their obligations to us, accurately inform us of relevant information, and conduct their activities in a manner that reflects positively on our brand and business. Although we manage exposure to such third-party risk through a variety of means, including the performance of due diligence and ongoing monitoring of vendor performance, there can be no assurance these efforts will be effective. Any failure of our business partners, service providers or other third parties to meet their commitments to us or to perform in accordance with our expectations, either due to their actions or inactions, or due to natural disasters or other external events beyond their control, could result in operational disruptions, increased expenditures, regulatory actions in which we may be held responsible for the actions of third parties, damage to our reputation and the loss of clients, which in turn could harm our business and operations, strategic growth objectives and financial performance. Many of our counterparties and third-party service providers have been, and may further be, affected by disruptions of global supply chains, market volatility and other factors that increase their risk of business disruption or that may otherwise affect their ability to perform under the terms of any agreements with us or provide essential services.

Our third-party partners may also rely on their own business partners and service providers in the ordinary course of their business. Although we seek to diversify our exposure to third-party partners in order to increase our resiliency, we are nevertheless exposed to the risk that a disruption or other IT event at a common service provider to our vendors could impede their ability to provide products or services to us, which in turn could harm our business and operations, strategic growth objectives and financial performance.

The soundness of other financial institutions could adversely affect us.

Financial services institutions are interrelated because of trading, clearing, counterparty and other relationships. We routinely execute transactions with counterparties in the financial services industry, including brokers and dealers, commercial banks, investment banks, payment processors and other institutional clients, which may result in payment obligations to us or to our clients due to products we have arranged. Many of these transactions expose us to credit and market risk that may cause our counterparty or client to default. In particular, the interconnectivity of multiple financial services institutions with central agents, exchanges and clearing houses and the increased centrality of these entities, increases the risk that an operational failure at one institution or entity may cause an industry-wide operational failure that could materially impact our ability to conduct business. Any losses arising from such occurrences could materially and adversely affect our business, results of operations or financial condition.

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

In deciding whether to extend credit or enter into other transactions with customers and counterparties, we may rely on information furnished to us by or on behalf of customers and counterparties, including financial statements and other information relating to their business or financial condition. We also may rely on representations of customers and counterparties as to the accuracy and completeness of that information and, with respect to financial statements, on reports or other certifications of their auditors or accountants. For example, under our accounts receivable financing arrangements, we rely on information, such as invoices, contracts and other supporting documentation, provided by our clients and their account debtors to determine the amount of credit to extend. Similarly, in deciding whether to extend credit, we may rely upon our customers' representations that their financial statements conform to GAAP (or other applicable accounting standards in foreign markets) and present fairly, in all material respects, the financial condition, results of operations and cash flows of the customer. If we rely on materially misleading, false, inaccurate or fraudulent information in evaluating the creditworthiness or other risk profiles of our clients or counterparties, we could be subject to credit losses, regulatory action, reputational harm or experience other adverse effects on our business, results of operations or financial condition.

We face risks associated with our current international operations and ongoing international expansion.

One important component of our strategy is to expand internationally. We currently have international offices in Canada, the U.K., Israel, Germany, Denmark, Ireland, Sweden, India, Hong Kong and China, including a joint-venture bank in China. We have expanded and plan to continue to expand and grow our operations and business activities in some of our current international markets. For example, we have expanded our presence in India, where we currently conduct certain technology, human resources and finance operations. Additionally, in 2022 we converted our U.K. branch to a separate U.K. banking subsidiary due to our growth. We also plan to expand our business beyond our current markets over time. Our efforts to expand our business internationally carry certain risks, including risks arising from: (i) the uncertainty regarding our ability to generate revenues from foreign operations, (ii) risks associated with leveraging and doing business with local business partners through joint ventures, strategic arrangements or other partnerships and (iii) other general operational risks. In

addition, there are certain risks inherent in doing business on an international basis, including, among others: (i) legal, regulatory and tax requirements and restrictions, (ii) uncertainties regarding liability, tariffs and other trade barriers, such as trade tensions between the United States and China, (iii) uncertainties regarding international public health issues, (iv) changes in governmental policies, unfavorable political and diplomatic developments, terrorism or other geopolitical events, (v) difficulties in staffing and managing foreign operations, (vi) the incremental requirement of management's attention and resources, (vii) differing technology standards or customer requirements, (viii) data security or transfer risks, (ix) cultural differences, (x) political and economic risks such as uncertainty created by the withdrawal of the U.K. from the European Union, military confrontation between Russia and Ukraine and (xi) financial risks, including currency and payment risks such as fluctuation in the value of foreign currencies, such as the euro. These risks could hinder our ability, or the ability of our local partners, to service our clients effectively, and adversely affect the success of our international operations, which, in turn, could have a material adverse effect on our overall business, results of operations or financial condition. In addition, we face risks that our employees and affiliates may fail to comply with applicable laws and regulations governing our international operations, including the U.S. Foreign Corrupt Practices Act, U.K. Bribery Act, GDPR, anti-corruption laws, privacy laws, anti-money laundering laws, economic and trade sanctions requirements and other applicable laws and regulations. Failure to comply with such laws and regulations could, among other things, result in enforcement actions and fines against us, as well as limitations on the conduct of our business, any of which could have a material adverse effect on our business and results of operations.

Our holding company, SVB Financial, relies on equity warrant assets income, investment distributions, periodic capital market transactions and dividends from its subsidiaries for most of its cash revenues.

SVB Financial is a holding company and is a separate and distinct legal entity from its subsidiaries. It receives most of its cash revenues from a few primary funding sources: income from equity warrant assets and investment securities, from periodic capital markets transactions offering debt and equity instruments in the public and private markets, and, to the extent declared, cash dividends paid by subsidiaries, primarily the Bank. These sources generate cash which is used by SVB Financial to pay operating and borrowing costs and, to the extent authorized or declared, fund dividends to holders of its capital stock and stock repurchase programs. The extent of income derived from the Bank is subject to a variety of underlying factors, as discussed in the "Credit Risks" portion of this "Risk Factors" section. Moreover, various federal and state laws and regulations limit the amount of dividends that the Bank and certain of our nonbank subsidiaries may pay to SVB Financial. In addition, SVB Financial's right to participate in a distribution of assets upon a liquidation or reorganization of any of its subsidiaries is subject to the prior claims of the subsidiary's creditors. In the event SVB Financial does not receive revenue from its subsidiaries, SVB Financial may not be able to pay operating and borrowing costs and, to the extent authorized or declared, fund dividends to holders of its capital stock and stock repurchase programs.

Climate change has the potential to disrupt our business and adversely impact the operations and creditworthiness of our clients.

Climate change presents both near and long-term risks to our business and that of our customers, and these risks are expected to increase over time. Climate change has caused severe weather patterns and events that could disrupt operations at one or more of our locations, which may disrupt our ability to provide financial products and services to our clients. Longer-term changes, such as increasing average temperatures and rising sea levels, may damage, destroy or otherwise impact the value or productivity of our properties and other assets, reduce the availability of insurance and/or lead to prolonged disruptions in our operations. Climate change could also have a negative effect on the financial status and creditworthiness of our clients, such as those in the wine industry, which may decrease revenues and business activities from those clients, increase the credit risk associated with loans and other credit exposures to such clients, and decrease the value of our warrants and direct equity investments in such clients, if any.

Climate change also exposes us to risks associated with the transition to a less carbon-dependent economy. Such risks may result from changes in policies, laws and regulations, technologies, or market preferences to address climate change. Such changes could materially and negatively impact our business, results of operations, financial condition and our reputation, in addition to having a similar impact on our customers. Federal and state regulatory authorities, investors and other third parties have increasingly viewed financial institutions as important in addressing the risks related to climate change, which may result in financial institutions facing increased pressure regarding the disclosure and management of climate risks and related lending and investment activities. Further, we have announced commitments related to the management of climate risks and the transition to a less carbon-dependent economy. Our inability to meet these commitments may subject us to, among other risks, increased business, operational and reputational risk.

Climate change could impose systemic risks upon the financial sector, either through operational disruptions or as a result of transitioning to a less carbon-dependent economy. While we are focused on enhancing our governance practices surrounding the management of climate change-related risks, we may face increased regulatory scrutiny related to our resilience to climate-related risks, including in the context of stress testing for various climate stress scenarios. Ongoing

legislative or regulatory uncertainties and changes regarding climate risk management and practices may result in higher regulatory, compliance, credit and reputational risks and costs.

The COVID-19 pandemic created significant economic and financial disruptions that adversely affected certain aspects of our business and operations, and such disruptions have the potential to reoccur.

The COVID-19 pandemic caused significant impacts to global health and economic conditions that adversely affected, and may in the future adversely affect, certain aspects of our business and operations. Although financial markets have generally rebounded from the significant declines that occurred earlier in the pandemic, the COVID-19 pandemic may continue to contribute to, among other things, (i) sudden and significant declines, and significant increases in volatility, in financial markets, (ii) increased utilization of credit lines if clients seek to bolster liquidity, (iii) fluctuations in the targeted federal funds rate as result of monetary policy measures in response to the effects of the COVID-19 pandemic, including inflationary pressures, (iv) the exacerbation of inflationary trends due to supply chain disruption or otherwise and (v) heightened cybersecurity, information security and operational risks as a result of work-from-home arrangements.

We remain unable to predict the full extent to which the COVID-19 pandemic may negatively affect our business, financial condition, liquidity, capital and results of operations in the future. The extent of any continued or future adverse effects of the COVID-19 pandemic will depend on future developments, which remain highly uncertain and outside our control, including the scope and duration of the pandemic, the direct and indirect impact of the pandemic on our employees, clients, counterparties and service providers, as well as other market participants, actions taken by governmental authorities and other third parties in response to the pandemic, the scope and duration of future phases or outbreaks, or seasonal or other resurgences, of the disease (including variants thereof), and the effectiveness and implementation of vaccination efforts.

Legal, Compliance and Regulatory Risks

We are subject to extensive regulation that could limit or restrict our activities, impose financial requirements or limitations on the conduct of our business, or result in higher costs to us, and the stringency of the regulatory framework applicable to us may increase if, and as, our balance sheet continues to grow.

SVB Financial, including the Bank, is extensively regulated under federal and state laws and regulations governing financial institutions, including those imposed by the FDIC, the Federal Reserve, the CFPB, the SEC and the DFPI, as well as various regulatory authorities that govern our global activities. Federal and state laws and regulations govern, restrict, limit or otherwise affect the activities in which we may engage and may affect our ability to expand our business over time, result in an increase in our compliance costs, including higher FDIC insurance premiums, and may affect our ability to attract and retain qualified executive officers and employees (especially when compared to competitors not subject to similar restrictions). Additionally, non-compliance with such regulations could further restrict, limit or affect the activities we may engage in. Further, the stringency of the regulatory framework that applies to us may increase as our asset size and international business grows.

A change in applicable statutes, regulations or regulatory policies, including the possibility of legislative, regulatory and policy changes by the U.S Congress and/or Biden-Harris Administration, could have a material adverse effect on our business, including limiting or imposing conditions on the types of financial services and products we may offer or increasing the ability of nonbanks to offer competing financial services and products. Increased regulatory requirements (and the associated compliance costs), whether due to the growth of our business, the adoption of new laws and regulations, changes in existing laws and regulations, or more expansive or aggressive enforcement of existing laws and regulations, may have a material adverse effect on our business, financial condition or results of operations. In addition, personnel part of or appointed by the Biden-Harris Administration may take new or different positions than their predecessors and that could result in additional regulatory requirements or requirements to change certain practices.

As a bank holding company with more than $100 billion of average total consolidated assets, we are subject to stringent regulations, including certain enhanced prudential standards applicable to large bank holding companies. If we exceed certain other thresholds, we will become subject to even more stringent regulations.

We are subject to additional regulatory requirements as a Category IV organization, such as certain enhanced prudential standards and monitoring and reporting certain risk-based indicators. Under the Tailoring Rules, Category IV organizations are, among other things, subject to (i) supervisory capital stress testing on a biennial basis, (ii) requirements to develop and maintain a capital plan on an annual basis and (iii) certain liquidity risk management and risk committee requirements, including liquidity buffer and liquidity stress testing requirements. As a result, we now face more stringent regulatory requirements and limitations on our business, as well as increased compliance costs.

As of year-end 2022, we had total consolidated assets of $211.8 billion. If we exceed $250 billion of average total consolidated assets, or exceed $75 billion in weighted short-term wholesale funding, nonbank assets, or off-balance sheet exposures, we will be subject to even more stringent regulations as a Category III organization. Category III organizations are

additionally subject to, among other requirements, biennial company-run stress testing, supervisory capital stress testing on an annual basis, and increased capital and liquidity requirements. If we were to exceed $700 billion of average total consolidated assets, or exceed $75 billion in cross-jurisdictional activity, we would be subject to the even more stringent capital and liquidity standards of a Category II organization. As of December 31, 2022, we had $59.9 billion in cross-jurisdictional activity. Category II organizations are additionally subject to annual company-run stress testing, are not permitted to opt out of including AOCI in regulatory capital calculations and are subject to the advanced approaches framework. Unless otherwise indicated, metrics referenced in this paragraph are calculated based on four quarter averages.

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 common stock repurchases. Further, we may be subject to heightened expectations, which could result in additional regulatory scrutiny, higher penalties, and more severe consequences if we are unable to meet those expectations. See "Business-Supervision and Regulation-Enhanced Prudential Standards," under this Part I, Item 1, for a more detailed description of the various requirements that are applicable to us.

We face a risk of noncompliance and enforcement action with the Bank Secrecy Act, other anti-money laundering and anti-bribery statutes and regulations and U.S. economic and trade sanctions.

The Bank Secrecy Act, the USA PATRIOT Act of 2001, the Anti-Money Laundering Act of 2020 and other laws and regulations require financial institutions to, among other duties, institute and maintain an effective anti-money laundering program and file suspicious activity and currency transaction reports as appropriate. The federal Financial Crimes Enforcement Network is authorized to impose significant civil money penalties for violations of those requirements and has engaged in coordinated enforcement efforts with state and federal banking regulators, as well as the U.S. Department of Justice and IRS. We also must comply with U.S. economic and trade sanctions administered by the U.S. Treasury Department's Office of Foreign Assets Control and the U.S. Foreign Corrupt Practices Act, and we, like other financial institutions, are subject to increased scrutiny for compliance with these requirements. We maintain policies, procedures and systems designed to detect and deter prohibited financing activities. However, if these controls were deemed deficient or fail to prevent wrongdoing, we could be subject to liability, including civil fines and regulatory actions, which may include restrictions on our ability to pay dividends and the necessity to obtain regulatory approvals to proceed with certain aspects of our business plan. In addition, any failure to effectively maintain and implement adequate programs to combat money laundering and terrorist financing could have serious reputational consequences for us. Any of these results could materially and adversely affect our business, financial condition or results of operations.

If we were to violate, or fail to comply with, international, federal or state laws or regulations governing financial institutions, we could be subject to disciplinary action that could have a material adverse effect on our business, financial condition, results of operations or reputation.

International, federal and state banking regulators possess broad powers to take supervisory or enforcement action with respect to financial institutions. Other regulatory bodies, including the SEC, FINRA and state securities regulators, regulate our investment adviser and broker-dealer subsidiaries. These laws and regulations are highly complex, and if we were to violate, even if unintentionally or inadvertently, regulatory authorities could take various actions against us, such as imposing restrictions on how we conduct our business, limiting new activities, investments or acquisitions, imposing higher capital and liquidity requirements, requiring us to maintain higher insurance levels, revoking necessary licenses or authorizations, imposing censures, significant civil money penalties or fines, issuing cease and desist or other supervisory orders and suspending or expelling us or any of our employees from certain businesses. For example, we could face material restrictions on our activities and our ability to enter into certain transactions if SVB Financial and the Bank cease to maintain their status as well-capitalized or well-managed as defined under the Federal Reserve's Regulation Y. These enforcement actions could have a material adverse effect on our business, financial condition, results of operations and reputation.

Laws and regulations regarding the handling of personal data and information may impede our services or result in increased costs, legal claims or fines against us.

We are subject to an evolving body of federal, state and non-U.S. laws, regulations, guidelines and principles regarding data privacy and security, including the protection of personal information. Legal requirements relating to the collection, storage, handling, use, disclosure, transfer and security of personal data continue to develop and regulatory scrutiny in this area is increasing around the world. Significant uncertainty exists as privacy and data protection laws that impact our operations may be interpreted and applied differently from country to country or may create inconsistent or conflicting requirements. For example, the GDPR applies outside of the European Union to all companies processing data of EU residents, regardless of location, while the California Consumer Privacy Act ("CCPA") established new requirements regarding the handling of personal data to entities serving or employing California residents. Those requirements expanded under the California Privacy Rights Act ("CPRA") as of January 1, 2023, with civil and administrative enforcement of the CPRA beginning July 1, 2023. The GDPR, CCPA and CPRA have heightened our privacy compliance obligations and require us to evaluate our current operations, IT systems and data handling practices and implement changes where necessary to comply, with associated costs. Our failure to comply with any such laws, or the failure of our current operations, IT systems and data handling practices to prevent breaches involving personal data, may result in significant liabilities and/or reputational harm, including regulatory fines and penalties, monetary damages from private litigation, or required modifications to our operations, IT systems and data handling practices. See “Business-Supervision and Regulation-Privacy and Cybersecurity,” under this Part I, Item 1, for a more detailed description of the various consumer privacy laws that are applicable to us.

Adverse results from litigation or governmental or regulatory investigations can impact our business practices and operating results.

We are currently involved in certain legal proceedings, and may from time to time be involved in governmental or regulatory investigations and inquiries relating to matters that arise in connection with the conduct of our business. While we have not recognized a material accrual liability for any lawsuits and claims filed or pending against us to date, the outcome of litigation and other legal and regulatory matters is inherently uncertain and it is possible that the actual results of one or more of such matters may be substantially higher than the amounts reserved, or that judgments may be rendered, or fines or penalties assessed in matters for which we have no reserves. Further, adverse outcomes in lawsuits or investigations may result in significant monetary damages, admissions of guilt or injunctive relief that may adversely affect our operating results or financial condition as well as our ability to conduct our businesses (or one or more business lines) as they are presently being conducted, including our ability to make certain acquisitions or otherwise expand our businesses. Any such resolution of a criminal matter involving us or our employees could lead to increased exposure to civil litigation and overlapping government investigations, could adversely affect our reputation, could result in penalties or limitations on our ability to conduct our activities generally or in certain circumstances and could have other negative effects. These matters also include responding to governmental inquiries regarding our customers. In recent years across the financial services industry, a number of investigations of customers have, based on the circumstances, led to investigations of the particular bank and its policies.

Moreover, even if we prevail in such actions, litigation and investigations can cause reputational harm and be costly and time-consuming, and often risk diverting the attention of our management and key personnel from our business operations, which could have a material adverse effect on our business, financial condition and results of operations. See Note 26 — "Legal Matters" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report for additional details.

A failure to appropriately identify and address potential conflicts of interest could adversely affect our businesses.

Due to the broad scope of our businesses, we regularly address potential conflicts of interest, including situations where our services to a particular client or our own investments or other interests conflict, or are perceived to conflict, with the interests of that client or another client, as well as situations where one or more of our businesses have access to material non-public information that may not be shared with our other businesses and situations where we may be a creditor of an entity with which we also have an advisory or other relationship. For example, SVB Securities provides investment banking services to clients in the healthcare and technology industry, some of which may also be clients or potential clients of the Bank. Additionally, SVB Financial from time to time may enter into hedging arrangements in respect of investments made in connection with SVB Capital’s business, meaning that we may maintain some short positions on SVB Capital funds, or the positions of clients or potential clients of the Bank. In addition, we invest in and partner with entities in the innovation economy, some of which may be clients or potential clients of the Bank. These types of potential conflicts have increased with our acquisition of Boston Private and the related expansion in our private bank business as well as our investments through our SVB Capital business.

We have procedures and controls designed to identify and address these conflicts of interest, including those designed to prevent the improper sharing of information among our businesses. However, appropriately identifying and dealing with conflicts of interest is complex and difficult, and our reputation could be damaged and the willingness of clients to enter into transactions with us may be affected if we fail, or appear to fail, to identify, disclose and deal appropriately with conflicts of interest. In addition, potential or perceived conflicts could give rise to litigation or regulatory enforcement actions.

Anti-takeover provisions and federal laws, particularly those applicable to financial institutions, may limit the ability of another party to acquire us, which could prevent a merger or acquisition that may be attractive to stockholders and/or have a material adverse effect on our stock price.

As a bank holding company, we are subject to certain laws that could delay or prevent a third party from acquiring us. The Bank Holding Company Act of 1956, as amended, and the Change in Bank Control Act of 1978, as amended, together with federal and state regulations, require that, depending on the particular circumstances, either the Federal Reserve must approve or, after receiving notice, must not object to any person or entity acquiring “control” (as determined under the Federal Reserve’s standards) of a bank holding company, such as SVB Financial, or a state member bank, such as the Bank. In addition, DFPI approval may be required in connection with the acquisition of control of the Bank. Moreover, certain provisions of our certificate of incorporation and bylaws and certain other actions we may take or have taken could delay or prevent a third party from acquiring us. Any of these laws, regulations and other provisions may prevent a merger or acquisition that would be attractive to stockholders and could limit the price investors would be willing to pay in the future for our common stock.

Strategic, Reputational and Other Risks

We have experienced significant growth during 2021 and into 2022, including deposit growth. If we again experience deposit growth at a similar or greater rate than has occurred in the past, we may need to raise additional equity to support our capital ratios.

We have experienced significant balance sheet growth beginning in 2020 and continuing through the first half of 2022. Failure to effectively manage our growth could lead us to over-invest or under-invest in our operations, result in weaknesses in our internal controls, give rise to operational mistakes, financial losses, loss of business opportunities and loss of client satisfaction, invite increased regulatory scrutiny, and result in loss of employees and reduced productivity of remaining employees. If our management is unable to effectively manage our growth, our expenses may increase more than expected, and our revenues may not increase or may grow more slowly than expected.

Much of the recent deposit growth was driven by our clients across all segments obtaining liquidity through liquidity events, such as IPOs, secondary offerings, SPAC fundraising, venture capital investments, acquisitions and other fundraising activities—which during 2021 and early 2022 were at notably high levels. Though these liquidity events and our deposit growth abated over the course of 2022, we are unable to predict whether these liquidity events will return to elevated rates, and whether our prior level of deposit growth will return. Our level of deposits also depends on whether clients determine to keep proceeds from liquidity events and other funds in deposit products with us (as opposed to off-balance sheet products, such as third-party money market funds). Although clients have historically retained a significant portion of their funds on our balance sheet, clients began to move more funds off balance sheet in the second half of 2022.

An increase in on-balance sheet deposits increases our assets and accordingly decreases our capital ratios for which assets (both total and risk-weighted) is the denominator. If there is further deposit growth, we may need to raise additional capital, including common equity, as occurred in 2021. For example, to support growth in 2021 we issued four series of preferred stock with total proceeds of $3.3 billion and issued 4,227,000 shares of common stock through two public offerings.

Concentration of risk increases the potential for significant losses, while the establishment of limits to mitigate concentration risk increases the potential for lower revenues and slower growth.

Our focus on certain markets or segments, including those by client industry, life-cycle stage, size and geography, increases the potential for significant losses due to concentration of risk. It may also result in lower revenues or slower growth if we choose to limit growth in certain markets or segments to mitigate concentration risk. While there may exist a great deal of diversity within each industry, our clients are concentrated within the following general industries: technology, life science and healthcare, private equity and venture capital and premium wine. Our technology clients generally tend to be in the industries of hardware and frontier technology (such as electronics, semiconductors, communications and data storage), software/internet (such as applications, digital content, infrastructure software, software services and advertising technology), financial technology and climate technology and sustainability. Our life science and healthcare clients are concentrated in the industries of biotechnology, medical devices, healthcare information technology and healthcare services. Many of our client companies are also concentrated by certain stages within their life cycles, such as early-stage, mid-stage or later-stage and many of these companies are venture capital-backed. In addition, growth prospects and our geographic focus on key domestic and international innovation markets, as well as premium wine markets, may lead to an increase in our concentration risk. Our loan concentrations are derived from our borrowers engaging in similar activities that could cause those borrowers to be similarly impacted by economic or other conditions. Any adverse effect on any of our areas of concentration could have a material impact on our business, results of operations and financial condition, even when economic and market conditions are generally favorable to our competitors that are not exposed to similar concentration risk.

Decreases in the amount of equity capital available to our clients could adversely affect our business, growth and profitability.

Our core strategy is focused on providing banking and financial products and services to companies, investors, entrepreneurs and influencers in the innovation economy, including in particular to early-stage and mid-stage companies that receive financial support from sophisticated investors, including venture capital or private equity firms, “angels,” corporate investors, crowd-funding and other evolving sources of capital. We derive a meaningful share of our deposits from these companies and provide them with loans as well as other banking products and services. In some cases, our lending credit decision is based on our analysis of the likelihood that our client will receive additional rounds of equity capital from investors or other funding sources. Among the factors that have affected and could in the future affect the amount of capital available to our clients are: (i) the receptivity of the capital markets, (ii) the prevalence of public equity offerings or M&A activity (primarily among companies within the technology and life science and healthcare industry sectors), (iii) the availability and return on alternative investments, (iv) economic conditions in the technology, life science and healthcare and private equity/venture capital industries and (v) overall general economic conditions. Reduced capital market valuations could also reduce the amount of capital available to our client companies, including companies within our technology and life science and healthcare industry sectors. In the event that capital available to these clients decreases, through a decrease in venture capital or public equity investment, M&A activity, or otherwise, the number of our new clients could decrease, the amount of deposits that we receive from existing or new clients may slow or decrease, and investor support to our existing clients could decrease, all of which could have an adverse effect on our business, profitability, and growth prospects.

We face competitive pressures that could adversely affect our business, results of operations, financial condition or growth.

We compete with other banks as well as specialty and diversified financial services companies and investment, debt, venture capital and private equity funds, some of which are larger than we are and which may offer a broader range of lending, leasing, payments, foreign currency exchange and other financial products and advisory services to our client base. We also compete with other alternative and more specialized lenders, such as online “marketplace” lenders, peer-to-peer lenders and other non-traditional lenders that have emerged in recent years.

Moreover, we compete with fintech and non-financial services companies, many of which offer bank or bank-like products, specialized services involving the elimination of banks as intermediaries (known as “disintermediation”) and/or the unbundling of banking products and services into point solutions. The activity of fintechs and support of fintechs by venture capital firms has increased significantly in recent years and is expected to continue to increase. For example, a number of fintechs have applied for, and in some cases received, bank or industrial loan charters or have partnered with existing banks to allow them to offer deposit products to their customers. There has also been significant fintech activity in the areas of credit cards, payments, foreign exchange and lending. Regulatory changes, such as revisions to the FDIC’s rules on brokered deposits, may also make it easier for fintechs to partner with banks and offer deposit products. In addition, some traditional technology companies are beginning to provide financial services directly to their customers and are expected to continue to explore new ways to do so. Many of these companies have fewer regulatory constraints than we do, and some have lower cost structures. Some of these companies also have greater resources to invest in technological improvements than we currently have and may be able to better recruit technology talent.

Our competitors may focus their marketing efforts on industry sectors that we serve. For example, they may seek to increase their lending and other financial relationships with technology companies or special industries such as wineries. When new competitors seek to enter one of our markets, or when existing market participants seek to increase their market share, they sometimes undercut the pricing and/or credit terms prevalent in that market, which could adversely affect our market share or ability to take advantage of new market opportunities. We may have to agree to accept less attractive credit, pricing and other investment terms if we act to meet these competitive challenges, which could adversely affect our business, results of operations, financial condition and future growth. Similarly, competitive pressures and market disruption could adversely affect our access to capital and attractive investment opportunities for our funds business.

Our ability to maintain or increase our market share depends on our ability to attract and maintain, as well as meet the needs of, existing and future clients.

Our success depends, in part, upon our ability to maintain or increase our market share. In particular, much of our success depends on our ability to attract early-stage or start-up companies as clients and to retain those companies as clients as they grow and mature successfully through the various stages of their life cycles. As a result, we adapt our products and services to evolving industry standards as well as introduce new products and services beyond industry standards in order to serve our clients, who are innovators themselves. A failure to achieve market acceptance for any new products or services we introduce, a failure to introduce products or services that the market demands, or the costs associated with developing, introducing and providing new products and services could have an adverse effect on our business, results of operations, growth prospects and financial condition.

We face risks in connection with our strategic undertakings and new business initiatives.

We are engaged, and may in the future engage, in strategic activities domestically or internationally, joint ventures, partnerships, investments or other business growth initiatives or undertakings. There can be no assurance that we will successfully identify appropriate opportunities, that we will be able to negotiate or finance such activities or that such activities, if undertaken, will be successful.

We are focused on our long-term growth and have undertaken various strategic activities and business initiatives, many of which involve activities that are new to us or, in some cases, are experimental in nature. For example, we are expanding our global presence and may engage in activities in jurisdictions where we have limited experience from a business, legal and/or regulatory perspective. With the acquisition of Leerink Holdings LLC, now known as SVB Securities, we expanded into new lines of business, namely, investment banking and M&A advisory services. In support of SVB Securities continued expansion

into technology investment banking, we have continued to grow the investment banking team to deepen our expertise in the technology sector and acquired MoffettNathanson LLC in December 2021 to expand our equity research coverage to include companies in the technology industry. Moreover, our acquisition of Boston Private significantly expanded our wealth management and private banking business and introduced new lines of lending and new deposit products, new types of customers and a number of bank branches. For example, the Boston Private acquisition included a portfolio of commercial real estate loans, which expose us to various risks. Such risks include potential environmental liability, if we were to acquire a property, through foreclosure or other similar proceedings, that had material environmental violations. Additionally, in 2022, we launched our first open-ended fund sponsored by SVB Financial to hold investments in other open-ended funds. We are also enhancing and expanding our payments processing capabilities and digital platforms to better serve our clients, including developing new electronic payment processing solutions, and supporting new or evolving payments systems and services. We may also serve clients that deal with new or evolving industries or business activities, such as digital currencies and cannabis. We currently have minimal exposure to cryptocurrency and digital assets through loans to, deposits from and investments in clients engaged in those industries. We have a robust control framework that restricts the offering of products and services to certain clients in the cannabis industry. We currently have minimal exposure to “no touch” clients that are not directly involved with cultivating, distributing, producing or otherwise engaging in any activities that “touch” the cannabis plant itself. Given our evolving geographic and product diversification, and our innovative product solutions, these initiatives, industries and business activities may subject us to, among other risks, increased business, reputational and operational risk, as well as more complex payment system rules and legal, regulatory and compliance costs and risks.

Our ability to execute strategic activities and new business initiatives successfully, as well as expand and grow our existing capabilities will depend on a variety of factors. These factors likely will vary based on the nature of the activity but may include our success in integrating an acquired company or a new internally developed growth initiative into our business, operations, services, products, personnel and systems, operating effectively with any partner with whom we elect to do business, meeting applicable regulatory requirements and obtaining applicable regulatory licenses or other approvals, hiring or retaining key employees, retaining clients, attracting new clients, achieving anticipated synergies, meeting management’s expectations, realizing the anticipated benefits of the activities, and overall general market conditions. Our ability to address these matters successfully cannot be assured. Additionally, macroeconomic and geopolitical uncertainties and challenges may adversely impact our ability to execute our strategic undertakings. Moreover, our strategic efforts may divert resources or management’s attention from ongoing business operations and may subject us to additional regulatory scrutiny and potential liability. If we do not successfully execute a strategic undertaking, it could adversely affect our business, financial condition, results of operations, reputation or growth prospects. In addition, if we were to conclude that the value of an acquired business had decreased and that the related goodwill had been impaired, that conclusion would result in an impairment of goodwill charge to us, which would adversely affect our results of operations. We may also be required to make unanticipated capital expenditures or investments in order to maintain, improve or sustain the acquired operations or take write-offs or impairment charges and may be subject to unanticipated or unknown liabilities relating to an acquisition.

In addition, in order to finance future strategic undertakings, we might require additional financing, which might not be available on terms favorable to us, or at all. If obtained, equity financing could be dilutive and the incurrence of debt and contingent liabilities could have a material adverse effect on our business, results of operations or financial condition.

We may fail to realize the growth prospects and other benefits anticipated as a result of the Boston Private acquisition.

The success of the Boston Private acquisition will depend, in part, on our ability to realize the anticipated business opportunities and growth prospects from the acquisition. We may not realize all of these business opportunities and growth prospects. The Boston Private acquisition required significant efforts and expenditures, as will the related integration that is currently underway. Our management might have its attention diverted while trying to integrate operations and corporate and administrative infrastructures and the cost of integration may exceed our expectations. In 2022, we incurred approximately $50 million of merger-related charges in connection with the transaction. We may also be required to make unanticipated capital expenditures or investments in order to maintain, improve or sustain the acquired operations or take write-offs or impairment charges and may be subject to unanticipated or unknown liabilities relating to the Boston Private acquisition. In addition, the success of the Boston Private acquisition will depend in part on our ability to continue to retain Boston Private’s employees and clients. If we are unable, for any reason, to retain key employees or clients, or recruit qualified successors for key employees, we may not realize the anticipated benefits of the transaction.

If any of these factors limit our ability to complete the integration of operations successfully or on a timely basis, our expectations of future results of operations might not be met. In addition, it is possible that the integration process could result in the loss of key employees, the disruption of ongoing businesses, tax costs or inefficiencies, or inconsistencies in standards, controls, IT systems, procedures and policies, any of which could adversely affect our ability to achieve the anticipated benefits of the Boston Private acquisition and could harm our financial performance.

Our business reputation and relationships are important and any damage to them could have a material adverse effect on our business.

Our reputation is very important in sustaining our business and we rely on our relationships with our current, former and potential clients and stockholders, the venture capital and private equity communities, and other actors in the industries that we serve. Any damage to our reputation, whether arising from regulatory, supervisory or enforcement actions, matters affecting our financial reporting or compliance with SEC and exchange listing requirements, negative publicity, shareholder activism, the way in which we conduct our business (including with respect to our actions related to environmental, social and governance matters, such as our public commitments and goals related to managing climate risk and diversity, equity and inclusion, or potential hedging arrangements) or otherwise, could strain our existing relationships and make it difficult for us to develop new relationships. Additionally, negative publicity regarding the industries that we focus on serving (for example, technology, private equity or venture capital) or any of our clients may also damage our reputation. Any such damage to our reputation and relationships could in turn lead to a material adverse effect on our business.

Whereas negative public opinion once was primarily driven by adverse news coverage in traditional media, the widespread use of social media platforms facilitates the rapid dissemination of information or misinformation, which may magnify the potential harm to our reputation. In addition, the behavior of our employees, including with respect to our employees’ use of social media, subjects us to potential negative publicity if such behavior does not align with our high standards of integrity or fails to comply with regulations or accepted practices.

An ineffective risk management framework could have a material adverse effect on our strategic planning and our ability to mitigate risks and/or losses and could have adverse regulatory consequences.

We have implemented a risk management framework to identify and manage our risk exposure. This framework is comprised of various processes, systems and strategies, and is designed to manage the types of risk to which we are subject, including, among others, credit, market, liquidity, operational, capital, compliance, strategic and reputational risks. Our framework also includes financial, analytical, forecasting or other modeling methodologies, which involve management assumptions and judgment. In addition, our Board of Directors, in consultation with management, has adopted a risk appetite statement, which sets forth certain thresholds and limits to govern our overall risk profile. However, there is no assurance that our risk management framework, including the risk metrics under our risk appetite statement, or use of related risk mitigation techniques, such as hedging arrangements, will be effective under all circumstances or that they will adequately identify, manage or mitigate any risk or loss to us. If our risk management framework is not effective, we could suffer unexpected losses and become subject to regulatory consequences, as a result of which our business, financial condition, results of operations or prospects could be materially adversely affected. As we continue to grow and expand our business, we will need to continue to evolve our risk management framework to support the size and complexity of the Company. Failure to adequately evolve our risk management framework may have adverse consequences on our business.

We do not currently pay dividends on shares of our common stock and may not do so in the future.

Holders of shares of our capital stock are only entitled to receive such dividends as our Board of Directors may declare out of funds legally available for such payments. We do not currently pay dividends on our common stock and have no current plans to do so. Furthermore, the terms of our outstanding preferred stock prohibit us from declaring or paying any dividends on any junior series of our capital stock, including our common stock, or from repurchasing, redeeming or acquiring such junior stock, unless we have declared and paid full dividends on our outstanding preferred stock for the most recently completed dividend period. We are also subject to statutory and regulatory limitations on our ability to pay dividends on our capital stock. If we are unable to satisfy the capital requirements applicable to us for any reason, we may be limited in our ability to declare and pay dividends on our capital stock.

General Risk Factors

If we fail to retain key employees or recruit new employees, or if we are unable to effectively manage the growth of our employee base, our growth and results of operations could be adversely affected.

Our performance is dependent on our ability to attract and retain qualified and diverse employees. We rely on key personnel, including a substantial number of employees who have technical expertise in their subject matter area and a strong network of relationships with individuals and institutions in the markets we serve. In addition, as we expand into international markets, we will need to hire local personnel within those markets. Further, competition for key personnel is substantial and may increase, particularly if new competitors seek to enter one of our markets or existing market participants seek to increase their market share. If we were to have less success in recruiting and retaining these employees than our competitors, for reasons including domestic or foreign regulatory restrictions on compensation practices, inflationary pressures on wages, inability to effectively address issues related to human capital management, or the availability of more attractive opportunities elsewhere, our growth and results of operations could be adversely affected. In addition, we have experienced meaningful growth in our employee base in recent years. The number of our FTEs increased from 6,567 at December 31, 2021, to 8,553 at December 31, 2022, and is expected to continue to increase through our organic growth. If this growth places strain on our operations, corporate culture or human capital management practices, or if we are unable to adequately integrate new employees or to maintain employee satisfaction, our growth and results of operations could be adversely impacted. Further, our performance may be adversely impacted if we are unable to effectively manage succession planning for key employees, as well as transitions and knowledge transfers related to key employee departures.

Moreover, equity awards are an important component of our compensation program, especially for our executive officers and other members of senior management. The extent of shares available for grant in connection with such equity awards pursuant to our incentive compensation plans is generally subject to stockholder approval. If we do not have sufficient shares to grant to existing or new employees, there could be an adverse effect on our recruiting and retention efforts, which could impact our growth and results of operations.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results. As a result, current and potential holders of our securities could lose confidence in our financial reporting, which would harm our business and the trading price of our securities.

Maintaining and adapting our internal controls over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act and related rules and regulations of the SEC, can be costly and require significant management attention. As we continue to grow or acquire additional businesses, our internal controls may become more complex and require additional resources to ensure they remain effective amid changing regulatory and other guidance. Failure to maintain effective controls or implement required new or improved controls or difficulties encountered in the process may harm our operating results or cause us to fail to meet our reporting obligations. If we or our independent registered accounting firm identify material weaknesses in our internal controls over financial reporting or if we are otherwise required to restate our financial statements, we could be required to implement costly and time-consuming remedial measures and could lose investor confidence in the accuracy and completeness of our financial reports. We may also face regulatory enforcement or other actions, including the potential delisting of our common stock from the NASDAQ Stock Market. This could have an adverse effect on our business, financial condition or results of operations, as well as the trading price of our securities, and could potentially subject us to litigation.

Changes in accounting standards could materially impact our financial statements.

From time to time, the FASB or the SEC may change the financial accounting and reporting standards that govern the preparation of our financial statements. Also, our global initiatives, as well as continuing trends towards the convergence of international accounting standards, such as rules that may be adopted under the IFRS, may result in the Company being subject to new or changing accounting and reporting standards. In addition, the bodies that interpret the accounting standards (such as banking regulators or external auditors) may change their interpretations or positions on how these standards should be applied. These changes may be beyond our control, can be hard to predict and can materially impact how we record and report our financial condition or results of operations. In some cases, we could be required to apply a new or revised standard retrospectively, or apply an existing standard differently, also retrospectively, in each case resulting in our revising or restating prior period financial statements.

We could be adversely affected by changes in tax laws and regulations or their interpretations.

We are subject to the income tax laws of the United States, its constituent states and municipalities and those of the foreign jurisdictions in which we have business operations. These tax laws are complex and may be subject to different interpretations. We must make judgments and interpretations about the application of these inherently complex tax laws when determining our provision for income taxes, our deferred tax assets and liabilities, and our valuation allowance. Changes to tax laws and regulations by the Biden-Harris Administration and the U.S. Congress, administrative rulings or court decisions could increase our provision for income taxes and reduce our net income.

We rely on quantitative and qualitative models to measure risks and to estimate certain financial values.

Quantitative and qualitative models may be used to help manage certain aspects of our business and to assist with certain business decisions, including estimating credit losses, measuring the fair value of financial instruments when reliable market prices are unavailable, estimating the effects of changing interest rates and other market measures on our financial condition and results of operations, and managing risk. However, all models have certain limitations and uncertainty. For example, our measurement methodologies rely on many assumptions, historical analyses and correlations. These assumptions may not capture or fully incorporate conditions leading to losses, particularly in times of market distress, and the historical correlations on which we rely may no longer be relevant. Additionally, as businesses and markets evolve, our measurements may not accurately reflect the changing environment. Further, even if the underlying assumptions and historical correlations used in our models are adequate, our models may be deficient due to deterioration in model performance, errors in computer code, bad data, misuse of data, or the use of a model for a purpose outside the scope of the model’s design. Although we employ strategies to manage and govern the risks associated with our use of models, they may

not be effective or fully reliable. As a result, our models may not capture or fully express the risks we face, suggest that we have sufficient capitalization when we do not, lead us to misjudge the business and economic environment in which we operate and ultimately cause planning failures or the reporting of incorrect information to our regulators. Any such occurrence or the perception of such occurrence by our regulators, investors or clients could in turn have a material adverse effect on our business, financial condition, results of operations or reputation.

The price of our capital stock may be volatile or may decline.

The trading price of our capital stock may fluctuate or be adversely affected as a result of a number of factors, many of which are outside our control, including trading volumes that affect the market prices of the shares of many companies. Factors that could affect the trading price of our capital stock include:

- actual or anticipated quarterly fluctuations in our operating results and financial condition;
- changes in revenue or earnings estimates or publication of research reports and recommendations by financial analysts;
- failure to meet analysts' revenue or earnings estimates;
- speculation in the press or investment community;
- strategic actions by us or our competitors;
- actions by institutional stockholders;
- fluctuations in the stock price and operating results of our competitors;
- general market conditions and, in particular, developments related to market conditions for the financial services industry including as a result of higher market volatility, current or anticipated military conflict, terrorism or other geopolitical events;
- actual or anticipated changes in interest rates;
- market perceptions about the innovation economy, including levels of funding or "exit" activities of companies in the industries we serve;
- proposed or adopted regulatory changes or developments;
- anticipated or pending investigations, proceedings or litigation that involve or affect us; and
- domestic and international economic factors, including inflation and recessionary conditions, unrelated to our performance.

The trading price of the shares of our common stock and depositary shares representing fractional interests in our preferred stock and the value of our other securities will further depend on many factors, which may change from time to time, including, without limitation, our financial condition, performance, creditworthiness and prospects, and future sales of our equity or equity-related securities. In some cases, the markets have produced downward pressure on trading prices of capital stock and credit availability for certain issuers without regard to those issuers' underlying financial strength. A significant decline in the trading price of our capital stock could result in substantial losses for individual stockholders and could lead to costly and disruptive securities litigation, as well as the loss of key employees.

Our capital stock is subordinate to our existing and future indebtedness.

Our capital stock, including our common stock and depositary shares representing fractional interests in our preferred stock, ranks junior to all of SVB Financial's existing and future indebtedness and other non-equity claims with respect to assets available to satisfy claims against us, including claims in the event of our liquidation. We may incur additional indebtedness in the future to increase our capital resources or if our total capital ratio or the total capital ratio of the Bank falls below the required minimums. Furthermore, our common stock is subordinate to our outstanding preferred stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our corporate headquarters facility consists of two buildings and is located at 3003 Tasman Drive, Santa Clara, California. We currently occupy 157,177 square feet at such location. The lease will expire on September 30, 2024, unless terminated earlier or extended.

We currently operate 55 regional offices in the United States as well as offices outside the United States. All of our office properties are occupied under leases or license agreements, which expire at various dates through 2057, and in most instances include options to renew or extend at market rates and terms.

Our Silicon Valley Bank operations are principally conducted out of our corporate headquarters in Santa Clara, California and our office in Tempe, Arizona, and our lending teams operate out of the various regional and international offices. With the acquisition of Boston Private, SVB Private operates out of various regional offices. SVB Capital principally operates out of our Menlo Park, California offices. SVB Securities principally operates out of our Boston, Massachusetts and New York, New York offices.

We believe that our properties are in good condition and suitable for the conduct of our business.

ITEM 3. LEGAL PROCEEDINGS

The information set forth under Note 26—"Legal Matters" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report is incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II.

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

Market Information

Our common stock is traded on the NASDAQ Global Select Market under the symbol "SIVB".

Holders

As of January 31, 2023, there were 778 registered holders of our common stock. We believe there were approximately 320,260 beneficial holders of common stock whose shares were held in the name of brokerage firms or other financial institutions. We are not provided with the number or identities of all of these stockholders, but we have estimated the number of such stockholders from the number of stockholder documents requested by these brokerage firms for distribution to their customers.

Dividends

SVB Financial does not currently pay cash dividends on our common stock. We have not paid any cash dividends since 1992.

Our Board of Directors evaluates whether to pay cash dividends, taking into consideration such factors as it considers relevant, including our current and projected financial performance, our projected sources and uses of capital, general economic conditions, considerations relating to our current and potential stockholder base, applicable regulatory requirements and relevant tax laws. Our ability to pay cash dividends is also limited by generally applicable corporate and banking laws and regulations. See "Business-Supervision and Regulation-Restrictions on Dividends" under Part I, Item 1 of this report.

Securities Authorized for Issuance under Equity Compensation Plans

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

Repurchases of Equity Securities by the Issuer and Affiliated Purchasers

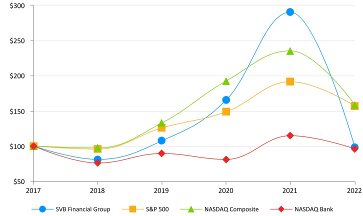
We did not make any repurchases of shares of our equity securities during the three months ended December 31, 2022.

Performance Graph

The following information is not deemed to be "soliciting material" or "filed" with the SEC or subject to the liabilities of Section 18 of the Exchange Act, and the report shall not be deemed to be incorporated by reference into any prior or subsequent filing by the Company under the Securities Act or the Exchange Act.

The following graph compares, for the period from December 31, 2017, through December 31, 2022, the cumulative total stockholder return on the common stock of the Company with (i) the cumulative total return of the Standard and Poor's 500 ("S&P 500") Index, (ii) the cumulative total return of the NASDAQ Composite index and (iii) the cumulative total return of the NASDAQ Bank Index. The graph assumes an initial investment of $100 and reinvestment of dividends. The graph is not indicative of future stock price performance.

Comparison of 5 Year Cumulative Total Return*



* $100 invested on 12/31/17 in stock or index, including reinvestment of dividends.

Fiscal year ended December 31st.
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	December 31,					
	2017	2018	2019	2020	2021	2022
SVB Financial Group	$ 100.00	$ 81.24	$ 107.39	$ 165.90	$ 290.13	$ 98.45
S&P 500	100.00	95.62	125.72	148.85	191.58	156.89
NASDAQ Composite	100.00	97.16	132.81	192.47	235.15	158.65
NASDAQ Bank	100.00	75.78	89.41	81.19	114.69	96.14

ITEM 6. [Reserved]

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

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The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our audited consolidated financial statements and supplementary data as presented under Part II, Item 8 of this report. Certain prior period amounts have been reclassified to conform to current period presentations. For a comparison of 2021 results to 2020 results and other 2020 information not included herein, refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations" under Part II, Item 7 of our 2021 Form 10-K filed with the SEC on February 25, 2022.

The following discussion and analysis of our financial condition and results of operations contains forward-looking statements. These statements are based on current expectations and assumptions, which are subject to risks and uncertainties. See our cautionary language at the beginning of this report under "Forward-Looking Statements". Actual results could differ materially because of various factors, including but not limited to those discussed in "Risk Factors," under Part I, Item 1A of this report.

Our fiscal year ends December 31st and, unless otherwise noted, references to years or fiscal years are for fiscal years ended December 31st.

Overview of Company Operations

SVB Financial is a diversified financial services company, as well as a bank holding company and a financial holding company. SVB Financial was incorporated in the state of Delaware in March 1999. Through our various subsidiaries and divisions, we offer a variety of banking and financial products and services. For 40 years, we have been dedicated to helping innovative companies and their investors succeed, especially in the technology, life science/healthcare, private equity/venture capital and premium wine industries. We provide our clients of all sizes and stages with a diverse set of products and services to support them through all stages of their life cycles, and key innovation markets around the world.

We offer commercial and private banking products and services through our principal subsidiary, the Bank, which is a California-state chartered bank founded in 1983 and a member of the Federal Reserve System. Through its subsidiaries, the Bank also offers asset management, private wealth management and other investment services. In addition, through SVB Financial's other subsidiaries and divisions, we also offer investment banking services and non-banking products and services, such as funds management, M&A advisory services and venture capital and private equity investment.

Management's Overview of 2022 Financial Performance

2022 was a challenging year as prolonged market volatility slowed public and private fundraising activity, which pressured our balance sheet growth and valuations of our private fund investments. Despite these challenging market conditions, we continued to deliver healthy results during 2022. Annual net interest income grew by 41%, driven by higher interest rates and average fixed income investment securities balances as well as strong loan growth even while funding costs increased as a result of the imbalance between client liquidity inflows from fundraising activities and declines from client cash burn. 2022 was a record for core fee income (a non-GAAP measure) as higher interest rates drove improved client investment fee margins. Despite pressured public markets, SVB Securities revenue continued to deliver solid results supported by our past investments to expand our investment banking capabilities and expertise. Credit quality remained healthy overall in 2022. While nonperforming loans and net charge offs did increase towards the end of the year as a result of current market challenges, they still remain at relatively low levels.

Reference Rate Reform

The publication of the British Pound Sterling, Euro, Swiss Franc and Japanese Yen LIBOR settings and one-week and two-month U.S. dollar LIBOR settings terminated at the end of December 2021, leaving the remaining U.S. dollar LIBOR settings (i.e., overnight, one month, three month, six month and 12 month) in place, which are expected to terminate at the end of June 2023. We hold instruments that may be impacted by the discontinuance of LIBOR, including loans, investments, debt and derivative products that use LIBOR as a benchmark rate.

SVB has launched alternative reference rates in line with industry standards across USD (SOFR), GBP (SONIA) and EUR (€STR). For USD, SVB supports Term SOFR (one month, three month and six month tenors) and Daily Simple SOFR

SVB has launched alternative reference rates in line with industry standards across USD (SOFR), GBP (SONIA) and EUR (€STR). For USD, SVB supports Term SOFR (one month, three month and six month tenors) and Daily Simple SOFR conventions. We have made significant progress on legacy contract migration away from LIBOR to alternate reference rates. SVB does not expect any material changes in net interest income or net interest expense from product spread adjustments as a result of offering alternative reference rates.

Results for the fiscal year ended, and as of, December 31, 2022, (compared to the fiscal year ended, and as of, December 31, 2021, where applicable):

BALANCE SHEET

Assets. $216.1 billion in average total assets (up 30.2%). $211.8 billion in period-end total assets (up 0.2%).

Loans. $70.3 billion in average total loan balances, amortized cost (up 28.9%). $74.3 billion in period-end total loan balances, amortized cost (up 12.0%).

Total Client Funds. (on-balance sheet deposits and off-balance sheet client investment funds). $374.9 billion in average total client fund balances (up 13.9%). $341.5 billion in period-end total client fund balances (down 14.5%).

AFS/HTM Fixed Income Investments. $124.2 billion in average fixed income investment securities (up 49.6%). $117.4 billion in period-end fixed income investment securities (down 6.4%).

EARNINGS

EPS. Earnings per diluted share of $25.35 (down 18.9%).

Net Income. Consolidated net income available to common stockholders of $1.5 billion (down 14.7%).

- NII of $4.5 billion (up 41.1%).
- Net interest margin of 2.16% (up 14 bps).
- Noninterest income of $1.7 billion (down 36.9%), non-GAAP core fee income[+] of $1.2 billion (up 57.3%) and non-GAAP SVB Securities revenue[++] of $518 million (down 3.7%).
- Noninterest expense of $3.6 billion (up 17.9%).

Return on Average Equity. Return on average equity performance of 12.14%.

Operating Efficiency Ratio. Operating efficiency ratio of 58.28%.

CAPITAL

Capital[+++]. Continued strong capital, with all capital ratios considered "well-capitalized" under banking regulations. SVBFG and SVB capital ratios, respectively, were:

- CET1 risk-based capital ratio of 12.05% and 15.26%.
- Tier 1 risk-based capital ratio of 15.40% and 15.26%.
- Total risk-based capital ratio of 16.18% and 16.05%. - Tier 1 leverage ratio of 8.11% and 7.96%.

CREDIT QUALITY

Credit Quality. Healthy credit in an evolving credit environment.

- ACL of 0.86% as a percentage of period-end total loans.
- Allowance for unfunded credit commitments of 0.48% as a percentage of total unfunded credit commitments.
- Provision for loans of 0.39% as a percentage of period-end total loans.
- Net loan charge-offs of 0.10% as a percentage of average total loans.

[+] Consists of fee income for deposit services, letters of credit and standby letters of credit, credit cards, client investments, wealth management and trust, foreign exchange and lending-related activities. This is a non-GAAP financial measure. (See the non-GAAP reconciliation under "Results of Operations—Noninterest Income")

[++] Consists of investment banking revenue and commissions. This is a non-GAAP financial measure. (See the non-GAAP reconciliation under "Results of Operations—Noninterest Income").

[+++] In March 2020, the federal banking agencies provided transitional relief to banking organizations with respect to the impact of CECL on regulatory capital. Under the 2020 CECL Transition Rule, banking organizations may delay the estimated impact of CECL on regulatory capital for two years, followed by a three-year period to phase out the aggregate capital benefit provided during the initial two-year delay. We have elected to use this five-year transition option. For additional details, see "Capital Resources" within "Consolidated Financial Condition" under Part 2, Item 7 of this report.

A summary of our performance in 2022 compared to 2021 is as follows:

	Year ended December 31,		
(Dollars in millions, except per share data, employees and ratios)	**2022**	**2021**	**% Change**
Income Statement:			
Diluted EPS	$ 25.35	$ 31.25	(18.9) %
Net income available to common stockholders	1,509	1,770	(14.7)
Net interest income	4,485	3,179	41.1
Net interest margin	2.16 %	2.02 %	14 bps
Provision for credit losses (1) (2)	$ 420	$ 123	NM %
Noninterest income	1,728	2,738	(36.9)
Noninterest expense	3,621	3,070	17.9
Non-GAAP core fee income (3)	1,181	751	57.3
Non-GAAP core fee income, plus SVB Securities Revenue (3)	1,699	1,289	31.8
Balance Sheet:			
Average AFS securities	$ 28,795	$ 24,996	15.2 %
Average HTM securities	95,394	58,030	64.4
Average loans, amortized cost	70,289	54,547	28.9
Average noninterest-bearing demand deposits	109,748	99,461	10.3
Average interest-bearing deposits	76,013	48,486	56.8
Average total deposits	185,761	147,947	25.6
Earnings Ratios:			
Return on average assets (4)	0.70 %	0.84 %	(16.7) %
Return on average SVBFG common stockholders' equity (5)	12.14	17.10	(29.0)
Asset Quality Ratios:			
ACL for loans as a % of total period-end loans	0.86 %	0.64 %	22 bps
ACL for performing loans as a % of total performing loans	0.79	0.58	21
Gross loan charge-offs as a % of average total loans (2)	0.15	0.25	(10)
Net loan charge-offs as a % of average total loans (2)	0.10	0.21	(11)
Capital Ratios:			
SVBFG CET1 risk-based capital ratio	12.05 %	12.09 %	(4) bps
SVBFG tier 1 risk-based capital ratio	15.40	16.08	(68)
SVBFG total risk-based capital ratio	16.18	16.58	(40)
SVBFG tier 1 leverage ratio	8.11	7.93	18
SVBFG tangible common equity to tangible assets (6)	5.62	5.73	(11)
SVBFG tangible common equity to risk-weighted assets (6)	10.46	11.98	(152)
Bank CET1 risk-based capital ratio	15.26	14.89	37
Bank tier 1 risk-based capital ratio	15.26	14.89	37
Bank total risk-based capital ratio	16.05	15.40	65
Bank tier 1 leverage ratio	7.96	7.24	72
Bank tangible common equity to tangible assets (6)	7.28	7.10	18
Bank tangible common equity to risk-weighted assets (6)	13.65	15.06	(141)
Other Ratios:			
Operating efficiency ratio (7)	58.28 %	51.88 %	12.3 %
Total costs of deposits (8)	0.46	0.04	NM
Book value per common share (9)	$ 208.85	$ 214.30	(2.5)
Tangible book value per common share (10)	200.77	205.64	(2.4)
Other Statistics:			
Average full-time equivalent employees	7,817	5,466	43.0 %
Period-end full-time equivalent employees	8,553	6,567	30.2

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(1) This metric for the year ended December 31, 2021, includes a post-combination provision of $46 million to record the ACL for non-PCD loans and unfunded credit commitments acquired from Boston Private.

(2) This metric for the year ended December 31, 2021, includes the impact of an $80 million charge-off related to fraudulent activity discussed in previous filings.

(3) See "Results of Operations–Noninterest Income" for a description and reconciliation of non-GAAP core fee income and non-GAAP core fee income plus investment banking revenue and commissions.

(4) Ratio represents consolidated net income available to common stockholders divided by average assets.

(5) Ratio represents consolidated net income available to common stockholders divided by average SVBFG stockholders' equity.

(6) See "Capital Resources–Capital Ratios" for a reconciliation of non-GAAP tangible common equity to tangible assets and tangible common equity to risk-weighted assets.

(7) The operating efficiency ratio is calculated by dividing total noninterest expense by total NII plus noninterest income.

(8) Ratio represents total cost of deposits and is calculated by dividing interest expense from deposits by average total deposits.

(9) Book value per common share is calculated by dividing total SVBFG common stockholders' equity by total outstanding common shares at period-end.

(10) Tangible book value per common share is calculated by dividing tangible common equity by total outstanding common shares at period-end. Tangible common equity is a non-GAAP measure defined under the section "Capital Resources-Capital Ratios."

For more information with respect to our capital ratios, please refer to "Capital Ratios" under "Consolidated Financial Condition-Capital Ratios" below.

Critical Accounting Policies and Estimates

Our accounting policies are fundamental to understanding our financial condition and results of operations and are discussed in Note 2—"Summary of Significant Accounting Policies" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report. We have identified one policy as being critical because it requires us to make particularly difficult, subjective and/or complex judgments about matters that are inherently uncertain, and because it is likely that materially different amounts would be reported under different conditions or using different assumptions. We evaluate our estimates and assumptions on an ongoing basis and we base these estimates on historical experiences and various other factors and assumptions that are believed to be reasonable under the circumstances. Actual results may differ materially from these estimates under different assumptions or conditions.

This critical accounting policy addresses the adequacy of the ACL for loans and unfunded credit commitments. Our senior management has discussed and reviewed the development, selection, application and disclosure of this critical accounting policy with the Audit Committee of our Board of Directors. The following is a brief discussion of our critical accounting estimate and related policy.

Allowance for Credit Losses

We consider this accounting policy to be critical as estimation of ECL involves material management estimates and is susceptible to significant changes in the near-term. Determining the ACL for loans and unfunded credit commitments requires us to make forecasts that are highly uncertain and require a high degree of judgment. A committee comprised of senior management evaluates the adequacy of the ACL for loans, which includes review of loan portfolio segmentation, quantitative models, internal and external data inputs, economic forecasts, credit risk ratings and qualitative adjustments.

Expected Credit Losses Estimate for Loans and Unfunded Credit Commitments

The methodology for estimating the amount of ECL reported in the ACL is the sum of two main components: (i) ECL assessed on a collective basis for pools of loans and unfunded credit commitments that share similar risk characteristics and (ii) ECL assessed for individual loans and unfunded credit commitments that do not share similar risk characteristics with other loans. Estimating the amount of ECL involves significant judgment on various matters including the assessment of risk characteristics, assignment of risk ratings, development and weighting of macroeconomic forecasts and incorporation of historical loss experience.

We derive an estimate of ECL using three predictive metrics: (i) probability of default ("PD"), (ii) loss given default ("LGD") and (iii) exposure at default ("EAD"), over the estimated life of the exposure. PD and LGD assumptions are developed based on quantitative models and inherent risk of credit loss, both of which involve significant judgment.

One of the most significant areas of judgment involved in estimating the ACL relates to the macroeconomic forecasts used to estimate credit losses. To the extent the remaining contractual lives of loans in the portfolio extend beyond the forecast period, we revert to historical averages using a method that will gradually trend towards the mean historical loss over the remaining contractual lives of loans, adjusted for prepayments. The macroeconomic scenarios are reviewed on a quarterly basis.

The selection of variables used in our econometric models varies by loan portfolio, but typically includes real gross domestic product ("GDP") growth, unemployment rates, Housing Price Index ("HPI") changes and BBB corporate bond spread.

Changes in management's assumptions and macroeconomic forecasts could significantly affect the estimate of ECL and alternative assumptions could have a significant impact on the ECL. However, changing one assumption without reassessing other assumptions used in the quantitative or qualitative process could yield results that are not reasonable or appropriate. Our ECL models were designed to capture the correlation between economic conditions and historical portfolio changes. As such, evaluating shifts in individual variables in isolation may not be indicative of past or future performance.

Given the range of the most significant macroeconomic variables in the upside, or stronger near-term growth, and downside, or moderate recession, scenarios of our forecast used to develop the ECL as of December 31, 2022, our portfolio reserve coverage ranges from 0.71 percent to 1.10 percent, with a funded reserve rate of 0.86 percent as of December 31, 2022. This range demonstrates the sensitivity of the ECL to key quantitative assumptions; however, it is not intended to estimate changes in the overall ECL as it does not reflect qualitative factor adjustments which are important considerations to ensure the allowance reflects our best estimate of current expected credit losses.

We apply certain qualitative factor adjustments to the results obtained through our quantitative ECL models to consider model imprecision, emerging risk assessments, trends and other subjective factors that may not be adequately represented in the quantitative ECL models. These adjustments to historical loss information are for asset-specific risk characteristics and also reflect our assessment of the extent that current conditions and reasonable and supportable forecasts differ from conditions that existed during the period over which historical information was evaluated. Given the current processes and risk monitoring by the Bank, management believes the combination of the quantitative model results and the qualitative factor adjustment represents a reasonable and appropriate estimate of ECL.

Recent Accounting Pronouncements

In March 2022, the FASB issued Accounting Standard Update No. 2022-01, Derivatives and Hedging (Topic 815), which allows multiple hedged layers to be designated in a single closed portfolio of financial assets. As a result, an entity can achieve hedge accounting for hedges of a greater proportion of the interest rate risk inherent in the assets included in the closed portfolio, further aligning hedge accounting with our risk management strategies. The update allows for a one-time transfer of certain debt securities from HTM to AFS upon adoption. This update is effective for fiscal years beginning after December 15, 2022, and interim periods within those fiscal years. We adopted this standard on January 1, 2023 and did not transfer any securities to the AFS portfolio. The adoption of this standard did not have a material impact on our financial statements.

In March 2022, the FASB issued Accounting Standard Update No. 2022-02, Financial Instruments — Credit Losses (Topic 326), which eliminates the accounting guidance for TDRs by creditors while enhancing disclosure requirements for certain loan refinancings and restructurings by creditors made to borrowers experiencing financial difficulty. The update also requires disclosure of current-period gross write-offs by year of origination for financing receivables. The update is effective for fiscal years beginning after December 15, 2022, and interim periods within those fiscal years. We adopted this standard on January 1, 2023. The adoption of this standard did not have a material impact on our financial statements.

In June 2022, the FASB issued Accounting Standard Update No. 2022-03, Fair Value Measurement (Topic 820), which clarifies that a contractual restriction on the sale of an equity security is not considered part of the unit of account of the equity security and, therefore, is not considered in measuring fair value. The update is effective for fiscal years beginning after December 15, 2023, and interim periods within those fiscal years. SVB currently applies a discount on securities covered by contractual restrictions, and these discounts will be removed upon adoption. We do not expect the adoption of the update to have a material impact on our consolidated financial statements and related disclosures.

Results of Operations

Net Interest Income and Margin (Fully Taxable Equivalent Basis)

NII is defined as the difference between: (i) interest earned on loans, fixed income investments in our AFS and HTM securities portfolios and cash and cash equivalents and (ii) interest paid on funding sources. Net interest margin is defined as NII, on a fully taxable equivalent basis, as a percentage of average interest-earning assets. NII and net interest margin are presented on a fully taxable equivalent basis to consistently reflect income from taxable loans and securities and tax-exempt securities based on the applicable federal statutory tax rate.

Analysis of Net Interest Income Changes Due to Volume and Rate (Fully Taxable Equivalent Basis)

NII is affected by changes in the amount and mix of interest-earning assets and interest-bearing liabilities, referred to as "volume change." NII is also affected by changes in yields earned on interest-earning assets and rates paid on interest-bearing liabilities, referred to as "rate change." The following table sets forth changes in interest income for each major category of interest-earning assets and interest expense for each major category of interest-bearing liabilities. The table also reflects the amount of simultaneous changes attributable to both volume and rate changes for the years indicated. For this table, changes that are not solely due to either volume or rate are allocated in proportion to the percentage changes in average volume and average rate.

	2022 compared to 2021			2021 compared to 2020		
	Change due to			Change due to		
(Dollars in millions)	**Volume**	**Rate**	**Total**	**Volume**	**Rate**	**Total**
Interest income:						
Federal Reserve deposits, federal funds sold, securities purchased under agreements to resell and other short-term investment securities	$ (87)	$ 281	$ 194	$ 7	$ (15)	$ (8)
Fixed income investment portfolio (taxable)	695	219	914	774	(210)	564
Fixed income investment portfolio (non-taxable)	48	(5)	43	71	(14)	57
Loans, amortized cost (1)	670	572	1,242	623	(177)	446
Increase (decrease) in interest income, net	1,326	1,067	2,393	1,475	(416)	1,059
Interest expense:						
Interest-bearing checking and savings accounts	273	82	355	1	(3)	(2)
Money market deposits	100	269	369	28	(21)	7
Money market deposits in foreign offices	—	1	1	—	—	—
Time deposits	58	17	75	2	(1)	1
Sweep deposits in foreign offices	—	—	—	—	(4)	(4)
Total increase (decrease) in deposits expense	431	369	800	31	(29)	2
Short-term borrowings	214	2	216	—	(3)	(3)
Long term debt	60	2	62	26	—	26
Total increase (decrease) in borrowings expense	274	4	278	26	(3)	23
Increase (decrease) in interest expense, net	705	373	1,078	57	(32)	25
Increase (decrease) in net interest income	$ 621	$ 694	$ 1,315	$ 1,418	$ (384)	$ 1,034

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(1) Upon the completion of the Boston Private acquisition in July 2021, a $104 million fair market value adjustment was made on the acquired loans that will be amortized into loan interest income over the contractual terms of the underlying loans using the constant effective yield method. The adjustment will be approximately 90 percent amortized by the end of fiscal year 2023. For the year ended December 31, 2022, $40 million of this premium amortization partially offset the overall increase in NII. At December 31, 2022, $24 million of unamortized fair market value adjustment was included in the line item "loans, amortized cost" on the consolidated balance sheet.

Net Interest Income (Fully Taxable Equivalent Basis)

NII increased by $1.3 billion to $4.5 billion in 2022, compared to $3.2 billion in 2021. Overall, our NII increased primarily from higher yields as well as increases in average balances of our fixed income investment securities and loans. The increase in NII was partially offset by higher rates on deposits as well as increases in average balances of interest-bearing deposits and increases in average balances of short-term borrowings.

The main factors affecting interest income and interest expense for 2022, compared to 2021, are discussed below:

- *Interest income* for 2022 increased by $2.4 billion primarily due to:
    - A $1.2 billion increase in interest income on loans to $3.2 billion in 2022, compared to $2.0 billion for the comparable 2021 period. The increase in interest income on loans was due primarily to an increase in average loan balances of $15.7 billion as well as higher loan interest yields driven by the increase in market rates,
    - A $957 million increase in interest income from our fixed income investment securities due primarily to an increase of $41.2 billion in average fixed income investment securities and an increase in yields earned on these investments reflective of lower premium amortization as a result of higher rates reducing estimated prepayment speeds and
    - A $194 million increase in interest income from increased market yields on interest-earning cash, partially offset by a $6.1 billion decrease in average cash balances.
- *Interest expense* for 2022 increased by $1.1 billion primarily due to:
    - A $800 million increase in interest expense on deposits due primarily to an increase in average interest-bearing deposit balances as well as by an increase in interest expense paid on our interest-bearing deposits driven by higher market rates and
    - A $278 million increase in interest expense on borrowings due primarily to an increase in average short-term borrowings driven by declines in deposits from client cash burn as well as full year interest expense on our 1.800% Senior Notes issued in October 2021 as well as interest expense on our 4.345% and 4.570% Senior Fixed Rate/Floating Rate Notes issued in April 2022 and long-term FHLB advances issued in the fourth quarter of 2022.

Net Interest Margin (Fully Taxable Equivalent Basis)

Our net interest margin increased by 14 bps to 2.16 percent in 2022, compared to 2.02 percent in 2021.

- The higher margin for the year ended December 31, 2022, was due primarily to improved yields reflective of a higher rate environment and the decrease in premium amortization mentioned above, partially offset by the increase in interest-bearing deposit expense and borrowing costs mentioned above.

Average Balances, Yields and Rates Paid (Fully Taxable Equivalent Basis)

The average yield earned on interest-earning assets is the amount of fully taxable equivalent interest income expressed as a percentage of average interest-earning assets. The average rate paid on funding sources is the amount of interest expense expressed as a percentage of average funding sources. The following tables set forth average assets, liabilities, NCI, preferred stock and SVBFG stockholders' equity, interest income, interest expense, yields and rates and the composition of our net interest margin in 2022, 2021 and 2020:

Average Balances, Yields and Rates Paid for the Years Ended December 31, 2022, 2021 and 2020

	Year ended December 31,								
	2022			2021			2020		
(Dollars in millions)	Average Balance	Interest Income/ Expense	Yield/ Rate	Average Balance	Interest Income/ Expense	Yield/ Rate	Average Balance	Interest Income/ Expense	Yield/ Rate
Interest-earning assets:									
Federal Reserve deposits, federal funds sold, securities purchased under agreements to resell and other short-term investment securities (1)	$ 14,742	$ 212	1.44 %	$ 20,800	$ 18	0.08 %	$ 12,252	$ 26	0.21 %
Investment Securities: (2)									
AFS securities:									
Taxable (3)	28,795	458	1.59	24,996	334	1.34	18,653	337	1.81
HTM securities:									
Taxable	88,403	1,655	1.87	52,937	865	1.63	10,728	298	2.78
Non-taxable (4)	6,991	177	2.54	5,093	134	2.63	2,385	77	3.24
Total loans, amortized cost (5) (6)	70,289	3,208	4.56	54,547	1,966	3.60	37,266	1,520	4.08
Total interest-earning assets	209,220	5,710	2.73	158,373	3,317	2.09	81,284	2,258	2.77
Cash and due from banks	2,367			2,241			1,021		
ACL: loans	(503)			(441)			(509)		
Other assets (3) (7)	5,019			5,838			3,996		
Total assets	$ 216,103			$ 166,011			$ 85,792		
Funding sources:									
Interest-bearing liabilities:									
Interest-bearing checking and savings accounts	$ 16,229	$ 360	2.22 %	$ 3,924	$ 5	0.12 %	$ 2,874	$ 7	0.24 %
Money market deposits	54,493	423	0.78	41,481	54	0.13	19,741	47	0.24
Money market deposits in foreign offices	530	1	0.15	918	—	0.02	330	—	0.09
Time deposits	3,787	78	2.06	994	3	0.31	336	2	0.56
Sweep deposits in foreign offices	974	—	0.04	1,169	—	0.01	1,542	4	0.27
Total interest-bearing deposits	76,013	862	1.13	48,486	62	0.13	24,823	60	0.24
Short-term borrowings	7,398	216	2.92	74	—	0.16	401	3	0.83
Long term debt	3,521	110	3.12	1,775	48	2.70	632	22	3.45
Total interest-bearing liabilities	86,932	1,188	1.37	50,335	110	0.22	25,856	85	0.33
Portion of noninterest-bearing funding sources	122,288			108,038			55,428		
Total funding sources	209,220	1,188	0.57	158,373	110	0.07	81,284	85	0.10
Noninterest-bearing funding sources:									
Demand deposits	109,748			99,461			50,193		
Other liabilities	2,998			3,660			2,168		
Preferred stock	3,646			1,925			340		
SVBFG common stockholders' equity	12,429			10,353			7,080		
Noncontrolling interests	350			277			155		
Portion used to fund interest-earning assets	(122,288)			(108,038)			(55,428)		
Total liabilities, noncontrolling interest and SVBFG stockholders' equity	$ 216,103			$ 166,011			$ 85,792		
Net interest income and margin		$ 4,522	2.16 %		$ 3,207	2.02 %		$ 2,173	2.67 %
Total deposits	$ 185,761			$ 147,947			$ 75,016		
Average SVBFG common stockholders' equity as a percentage of average assets			5.75 %			6.24 %			8.25 %
Reconciliation to reported net interest income:									
Adjustments for taxable equivalent basis		(37)			(28)			(16)	
Net interest income, as reported		$ 4,485			$ 3,179			$ 2,157	

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(1) Includes average interest-earning deposits in other financial institutions of $5.3 billion, $4.6 billion and $1.1 billion in the years ended December 31, 2022, December 31, 2021, and December 31, 2020, respectively. For December 31, 2022, December 31, 2021, and December 31, 2020, balances also include $9.2 billion, $15.9 billion and $9.9 billion, respectively, deposited at the FRB, earning interest at the Federal Funds target rate.
(2) Yields on interest-earning investment securities do not give effect to changes in fair value that are reflected in other comprehensive income.
(3) Average unrealized losses on AFS securities of $1.7 billion and average unrealized gains of $163 million and $562 million for the year ended December 31, 2022, December 31, 2021 and December 31, 2020, respectively, were reclassified out of AFS securities into other assets.
(4) Interest income on non-taxable investment securities is presented on a fully taxable equivalent basis using the federal statutory income tax rate of 21.0 percent for all periods presented.
(5) Nonaccrual loans are reflected in the average balances of loans.
(6) Interest income includes loan fees of $207 million, $217 million and $191 million in the years ended December 31, 2022, December 31, 2021, and December 31, 2020, respectively.
(7) Average nonmarketable and other equity securities of $2.6 billion, $3.0 billion and $1.4 billion in the years ended December 31, 2022, December 31, 2021, and December 31, 2020, respectively, were classified as other assets as they are noninterest-earning assets.

Provision for Credit Losses

The provision for credit losses is the combination of (i) the provision for loans, (ii) the provision for unfunded credit commitments and (iii) the provision for HTM securities. Our allowance for credit losses reflects our best estimate of probable credit losses that are inherent in the portfolios at the balance sheet date.

The following table summarizes our ACL and provision for credit losses for loans, unfunded credit commitments and HTM securities for 2022, 2021 and 2020, respectively:

	Year ended December 31,		
(Dollars in millions)	2022	2021	2020
ACL, beginning balance	$ 422	$ 448	$ 305
Day one impact of adopting ASC 326	—	—	25
Initial allowance on PCD loans	—	22	—
Provision for loans (1) (2)	288	66	190
Gross loan charge-offs (2)	(103)	(138)	(103)
Loan recoveries	32	24	29
Foreign currency translation adjustments	(3)	—	2
ACL, ending balance	$ 636	$ 422	$ 448
ACL for unfunded credit commitments, beginning balance	171	121	68
Day one impact of adopting ASC 326	—	—	23
Provision for unfunded credit commitments (1)	133	50	30
Foreign currency translation adjustments	(1)	—	—
ACL for unfunded credit commitments, ending balance (3)	$ 303	$ 171	$ 121
ACL for HTM securities, beginning balance	7	—	—
Provision (reduction in ACL) for HTM securities	(1)	7	—
ACL for HTM securities, ending balance (4)	$ 6	$ 7	$ —
Ratios and other information:			
Provision for loans as a percentage of period-end total loans (2)	0.39 %	0.10 %	0.42 %
Gross loan charge-offs as a percentage of average total loans (2)	0.15	0.25	0.28
Net loan charge-offs as a percentage of average total loans (2)	0.10	0.21	0.20
ACL for loans as a percentage of period-end total loans	0.86	0.64	0.99
Provision for credit losses	$ 420	$ 123	$ 220
Period-end total loans	74,250	66,276	45,181
Average total loans	70,289	54,547	37,266
Allowance for loan losses for nonaccrual loans	51	35	54
Nonaccrual loans	132	84	104

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(1) The provision for credit losses for the year ended December 31, 2021 includes $46 million recognized as a result of the Boston Private acquisition, which consists of a $44 million initial provision for loans related to non-PCD loans and a $2 million initial provision for unfunded commitments.
(2) Metrics for the year ended December 31, 2021 includes the impact of an $80 million charge-off related to fraudulent activity on one loan as disclosed in previous filings.
(3) The "ACL for unfunded credit commitments" is included as a component of "Other liabilities" on our consolidated balance sheets.
(4) The "ACL for HTM securities" is included as a component of "HTM securities" and presented net in our consolidated financial statements.

For a more detailed discussion of credit quality and the ACL, see "Critical Accounting Policies and Estimates" above, "Consolidated Financial Condition-Credit Quality and the Allowance for Credit Losses for Loans and for Unfunded Credit Commitments" below and Note 10—"Loans and Allowance for Credit Losses: Loans and Unfunded Credit Commitments" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report for further details on our ACL.

Provision for Loans

We had a provision for credit losses for loans of $288 million in 2022, compared to a provision of $66 million in 2021. The provision for loans of $288 million in 2022 was driven primarily by the deterioration in projected financial conditions which accounted for $129 million, of which $89 million was taken in the second quarter. Other major drivers of the provision were $82 million in charge-offs not previously specifically reserved for and $74 million due to loan growth. The largest offset was $32 million in recoveries.

We had a provision for loans of $66 million in 2021, driven primarily by a $64 million increase for organic growth in our loan portfolio, $44 million initial provision from acquired Boston Private non-PCD loans and $113 million of charge-offs not previously specifically reserved for, of which $80 million was related to a single instance of fraudulent activity on one loan as disclosed in previous filings. These increases in the provision were partially offset by $24 million of recoveries, a $62 million reduction in performing reserves as a result of the ongoing improvement of economic scenarios in our forecast models and a $69 million reduction in provision due to enhancements made in the model.

We had a provision for loans of $190 million in 2020, driven primarily by $60 million in net new nonaccrual loans and $57 million in additional reserves for our performing loans based on the forecast models of the economic environment at the time, including the impact of the COVID-19 pandemic, as well as changes in loan composition within our portfolio segments. The provision was also driven by $55 million in additional reserves for period-end loan growth and $49 million for charge-offs not specifically reserved for, partially offset by $29 million of recoveries.

Provision for Unfunded Credit Commitments

We recorded a provision for unfunded credit commitments of $133 million in 2022, compared to a provision of $50 million in 2021. Our provision for unfunded credit commitments in 2022 was driven primarily by the deterioration in economic forecasts described above which accounted for $67 million. Growth in our unfunded commitments contributed to an additional $61 million in provision.

We recorded a provision for unfunded credit commitments of $50 million in 2021. Our provision for unfunded credit commitments in 2021 was driven primarily by growth in our outstanding commitments and changes in the unfunded portfolio composition, as well as an increase in the expected future commitments for milestone tranches of Investor Dependent loans, which are tied to company performance or additional funding rounds, resulting in a longer weighted average life of these higher risk segments. These increases were partially offset by improved economic scenarios in our forecast models.

We recorded a provision for unfunded credit commitments of $30 million in 2020, driven primarily by the forecast models of the economic environment at the time, including the impact of the COVID-19 pandemic, as well as growth in unfunded credit commitments.

Provision for HTM Securities

We recorded a reduction in the allowance for credit losses for HTM securities of $1 million in 2022. This reflects a release of reserves driven primarily by the ongoing stability of our HTM securities portfolio during the year. Our HTM portfolio as of December 31, 2022, was entirely made up of A3 or better rated bonds, all considered investment grade.

We recorded a provision for HTM securities of $7 million in 2021. Our provision for HTM securities was driven primarily by the creation of our corporate bond portfolio, which had a balance of $712 million at December 31, 2021. Our HTM portfolio as of December 31, 2021, was entirely made up of A3 or better rated bonds, all considered investment grade.

We recorded a provision for HTM securities of less than $1 million in 2020. The nominal provision for HTM securities was driven primarily by the forecast models of the economic environment at the time. Our HTM portfolio as of December 31, 2020, was entirely made up of Aa2 or better rated bonds, all considered high quality.

See Note 10—"Loans and Allowance for Credit Losses: Loans and Unfunded Credit Commitments" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report for further details on our gross loan charge-offs and our ACL for loans and unfunded credit commitments.

Noninterest Income

For the year ended December 31, 2022, noninterest income was $1.7 billion, compared to $2.7 billion for the comparable 2021 period. For the year ended December 31, 2022, non-GAAP core fee income was $1.2 billion, compared to $751 million for the comparable 2021 period. For the year ended December 31, 2022, non-GAAP SVB Securities revenue was $518 million, compared to $538 million for the comparable 2021 period. (See reconciliations of non-GAAP measures used below under "Use of Non-GAAP Financial Measures".)

Use of Non-GAAP Financial Measures

To supplement our audited consolidated financial statements presented in accordance with GAAP, we use certain non-GAAP measures of financial performance (including, but not limited to, non-GAAP core fee income, non-GAAP SVB Securities revenue, non-GAAP core fee income plus non-GAAP SVB Securities revenue, non-GAAP net gains (losses) on investment securities, net of NCI and non-GAAP financial ratios). These supplemental performance measures may vary from, and may not be comparable to, similarly titled measures by other companies in our industry. Non-GAAP financial measures are not in accordance with, or an alternative for, GAAP. Generally, a non-GAAP financial measure is a numerical measure of a company's performance that either excludes or includes amounts that are not normally excluded or included in the most directly comparable measure calculated and presented in accordance with GAAP. A non-GAAP financial measure may also be a financial metric that is not required by GAAP or other applicable requirement.

We believe these non-GAAP financial measures, when taken together with the corresponding GAAP financial measures, provide meaningful supplemental information regarding our performance by (i) excluding items that represent income attributable to investors other than us and our subsidiaries and (ii) providing additional information used by management that is not otherwise required by GAAP or other applicable requirements. Our management uses, and believes that investors benefit from referring to, these non-GAAP financial measures in assessing our operating results and when planning, forecasting and analyzing future periods. However, these non-GAAP financial measures should be considered in addition to, and not as a substitute for or preferable to, financial measures prepared in accordance with GAAP.

Included in net income is income and expense attributable to NCI. We recognize, as part of our investment funds management business through SVB Capital and SVB Securities, the entire income or loss from funds consolidated in accordance with ASC Topic 810 as discussed in Note 2—"Summary of Significant Accounting Policies" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report. We are required under GAAP to consolidate 100% of the results of these entities, even though we may own less than 100% of such entities. The relevant amounts attributable to investors other than us are reflected under "Net Income Attributable to Noncontrolling Interests" on our statements of income. Where applicable, the tables below for noninterest income and net gains (losses) on investment securities exclude NCI.

Core fee income is a non-GAAP financial measure, which represents GAAP noninterest income, but excludes (i) SVB Securities revenue, (ii) certain line items where performance is typically subject to market or other conditions beyond our control, primarily our net gains (losses) on investment securities and equity warrant assets and (iii) other noninterest income. Core fee income represents client investment fees, wealth management and trust fees, foreign exchange fees, credit card fees, deposit service charges, lending related fees and letters of credit and standby letters of credit fees.

SVB Securities revenue is a non-GAAP financial measure, which represents noninterest income but excludes (i) Core fee income and (ii) certain line items where performance is typically subject to market or other conditions beyond our control, primarily our net gains (losses) on investment securities and equity warrant assets and other noninterest income. SVB Securities revenue represents investment banking revenue and commissions.

Core fee income plus SVB Securities revenue is a non-GAAP measure, which represents GAAP noninterest income, but excludes certain line items where performance is typically subject to market or other conditions beyond our control, primarily our net gains (losses) on investment securities and equity warrant assets and other noninterest income. Core fee income plus SVB Securities revenue represents core fee income plus investment banking revenue and commissions.

The following table provides a reconciliation of GAAP noninterest income to non-GAAP core fee income for 2022, 2021 and 2020, respectively:

	Year ended December 31,				
(Dollars in millions)	2022	2021	% Change 2022/2021	2020	% Change 2021/2020
GAAP noninterest income	$ 1,728	$ 2,738	(36.9)%	$ 1,840	48.8 %
Less: gains (losses) on investment securities, net	(285)	761	(137.5)	421	80.8
Less: gains on equity warrant assets, net	148	560	(73.6)	237	136.3
Less: other noninterest income	166	128	29.7	98	30.6
Non-GAAP core fee income plus SVB Securities revenue (1)	$ 1,699	$ 1,289	31.8	$ 1,084	18.9
Investment banking revenue	420	459	(8.5)	414	10.9
Commissions	98	79	24.1	67	17.9
Non-GAAP SVB Securities revenue (2)	$ 518	$ 538	(3.7)	$ 481	11.9
Non-GAAP core fee income (3)	$ 1,181	$ 751	57.3	$ 603	24.5

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(1) Non-GAAP core fee income plus SVB Securities revenue represents noninterest income, but excludes certain line items where performance is typically subject to market or other conditions beyond our control and other noninterest income. Core fee income plus SVB Securities revenue is non-GAAP core fee income (as defined in footnote (3) below) with the addition of investment banking revenue and commissions.

(2) Non-GAAP SVB Securities revenue represents investment banking revenue and commissions, but excludes certain line items where performance is typically subject to market or other conditions beyond our control and other noninterest income.

(3) Non-GAAP core fee income represents noninterest income, but excludes (i) certain line items where performance is typically subject to market or other conditions beyond our control, (ii) our investment banking revenue and commissions and (iii) other noninterest income. Non-GAAP core fee income includes client investment fees, wealth management and trust fees, foreign exchange fees, credit card fees, deposit service charges, lending related fees and letters of credit and standby letters of credit fees.

Gains (losses) on Investment Securities, Net

Net gains (losses) on investment securities include gains and losses from our non-marketable and other equity securities, which include public equity securities held as a result of exercised equity warrant assets, as well as gains and losses from sales of our AFS debt securities portfolio, when applicable.

Our non-marketable and other equity securities portfolio primarily represents investments in venture capital and private equity funds, SPD-SVB, debt funds, private and public portfolio companies and qualified affordable housing projects. We experience variability in the performance of our non-marketable and other equity securities from period to period, which results in net gains or losses on investment securities (both realized and unrealized). This variability is due to a number of factors, including unrealized changes in the values of our investments, changes in the amount of realized gains and losses from distributions, changes in liquidity events and general economic and market conditions. Unrealized gains or losses from non-marketable and other equity securities for any single period are typically driven by valuation changes, and are therefore subject to potential increases or decreases in future periods. Such variability may lead to volatility in the gains or losses from investment securities. As such, our results for a particular period are not necessarily indicative of our expected performance in a future period.

The extent to which any unrealized gains or losses will become realized is subject to a variety of factors, including, among other things, the expiration of certain sales restrictions to which these equity securities may be subject to (e.g., lock-up agreements), changes in prevailing market prices, market conditions, the actual sales or distributions of securities, and the timing of such actual sales or distributions, which, to the extent such securities are managed by our managed funds, are subject to our funds' separate discretionary sales/distributions and governance processes.

Our AFS securities portfolio is a fixed income investment portfolio that is managed with the objective of earning an appropriate portfolio yield over the long-term while maintaining sufficient liquidity and credit diversification as well as addressing our asset/liability management objectives. Though infrequent, sales of debt securities in our AFS securities portfolio may result in net gains or losses and are conducted pursuant to the guidelines of our investment policy related to the management of our liquidity position and interest rate risk.

The following tables provide a reconciliation of GAAP total gains (losses) on investment securities, net, to non-GAAP net gains (losses) on investment securities, net of NCI, for 2022, 2021 and 2020:

(Dollars in millions)	Managed Funds of Funds	Managed Direct Venture Funds	Managed Credit Funds	Public Equity Securities	Sales of AFS Debt Securities	Debt Funds	Strategic and Other Investments	SVB Securities	Total
Year ended December 31, 2022									
GAAP gains (losses) on investment securities, net	$ (125)	$ 7	$ 8	$ (46)	$ 21	$ —	$ (119)	$ (31)	$ (285)
Less: (losses) gains attributable to NCI, including carried interest allocation	(59)	1	3	—	—	—	—	(7)	(62)
Non-GAAP net gains (losses) on investment securities, net of NCI	$ (66)	$ 6	$ 5	$ (46)	$ 21	$ —	$ (119)	$ (24)	$ (223)
Year ended December 31, 2021									
GAAP gains (losses) on investment securities, net	$ 353	$ 44	$ 22	$ 17	$ 31	$ 2	$ 170	$ 122	$ 761
Less: gains attributable to NCI, including carried interest allocation	158	17	4	—	—	—	—	61	240
Non-GAAP net gains (losses) on investment securities, net of NCI	$ 195	$ 27	$ 18	$ 17	$ 31	$ 2	$ 170	$ 61	$ 521
Year ended December 31, 2020									
GAAP gains (losses) on investment securities, net	$ 116	$ 56	$ 19	$ 95	$ 61	$ —	$ 66	$ 8	$ 421
Less: gains attributable to NCI, including carried interest allocation	55	27	3	—	—	—	—	1	86
Non-GAAP net gains (losses) on investment securities, net of NCI	$ 61	$ 29	$ 16	$ 95	$ 61	$ —	$ 66	$ 7	$ 335

In 2022, we had net losses on investment securities of $285 million, compared to net gains of $761 million in 2021. Non-GAAP net losses on investment securities, net of NCI were $223 million in 2022, compared to net gains of $521 million in 2021. Net losses on investment securities, net of NCI of $223 million in 2022 were driven by the following:

- Total net loss of $275 million ($209 million, net of NCI) in our managed funds of funds, SVB Securities and strategic and other investment portfolios were driven primarily by valuation declines reflective of adverse market conditions, partially offset by
- Net gains of $21 million on the sale of $9.5 billion of AFS debt securities, inclusive of the gains from the termination of AFS fair value swaps.
- Net losses in our managed funds of funds portfolio are also partially offset by gains of $40 million, included in other noninterest income, for the change in fair value of hedge instruments for certain funds.

In 2021, we had net gains on investment securities of $761 million, compared to $421 million in 2020. Non-GAAP net gains on investment securities, net of NCI were $521 million in 2021, compared to $335 million in 2020, respectively. Net gains on investment securities, net of NCI of $521 million in 2021 were driven by the following:

- Gains of $195 million from our managed fund of funds portfolio driven by unrealized valuations increases of private and public positions as well as fund distributions driven primarily by realized gains from one public company position,
- Gains of $170 million from our strategic and other investments driven primarily by net unrealized valuation increases,
- Gains of $61 million from SVB Securities driven primarily by unrealized valuation gains from the SVB Securities funds and
- Gains of $31 million from our AFS debt securities portfolio, resulting from the sale of $1.6 billion of mortgage-backed securities.

Gains on Equity Warrant Assets, Net

A summary of gains on equity warrant assets, net, for 2022, 2021 and 2020 is as follows:

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Equity warrant assets (1):					
Gains on exercises, net	$ 45	$ 446	(89.9)%	$ 179	149.2 %
Terminations	(4)	(2)	100.0	(2)	—
Changes in fair value, net	107	116	(7.8)	60	93.3
Total gains on equity warrant assets, net	$ 148	$ 560	(73.6)	$ 237	136.3

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(1) At December 31, 2022, we held warrants in 3,234 companies, compared to 2,831 companies at December 31, 2021. The total fair value of our warrant portfolio was $383 million at December 31, 2022 and $277 million at December 31, 2021. Warrants in 65 companies each had fair values greater than $1 million and collectively represented $199 million, or 51.9 percent, of the fair value of the total warrant portfolio at December 31, 2022.

Gains on equity warrant assets, net, were $148 million in 2022, compared to $560 million in 2021. Net gains on equity warrant assets of $148 million in 2022 were primarily due to the following:

- Net gains on equity warrant assets were driven by $107 million in net valuation increases reflective of private company valuation updates and inclusive of a downward valuation adjustment of $8 million for illiquid investments during the second quarter of 2022, reflective of market volatility and
- Net gains on warrant exercises of $45 million driven primarily by M&A activity.

Gains on equity warrant assets, net, were $560 million in 2021, compared to $237 million in 2020. Net gains on equity warrant assets of $560 million in 2021 were primarily due to the following:

- Net gains on warrant exercises of $446 million reflective of $116 million in gains related to Coinbase's direct listing, with the remaining gains driven primarily by IPO activity and
- Net gains of $116 million from warrant valuations increases, driven by our private company portfolio reflective of pricing updates and pending exit activity.

Overall, net gains on investment securities and net gains on equity warrant assets were exceptionally strong for 2021. Combined, they totaled $1.3 billion ($1.1 billion net of NCI) for the year ended December 31, 2021.

Gains (or losses) related to our equity securities in public companies are based on valuation changes or the sale of any securities, and are subject to such companies' stock price, which are subject to market conditions and various other factors. Additionally, the public equity investment expected gains and losses, and the extent to which such gains (or losses) will become realized is subject to a variety of factors, including among other factors, changes in prevailing market prices and the timing of any sales of securities, which are subject to our securities sales and governance process as well as certain sales restrictions (e.g., lock-up agreements).

Non-GAAP Core Fee Income and Non-GAAP SVB Securities Revenue

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Non-GAAP core fee income (1):					
Client investment fees	$ 386	$ 75	NM	$ 132	(43.2)%
Wealth management and trust fees	83	44	88.6	—	—
Foreign exchange fees	285	262	8.8	179	46.4
Credit card fees	150	131	14.5	98	33.7
Deposit service charges	126	112	12.5	90	24.4
Lending related fees	94	76	23.7	57	33.3
Letters of credit and standby letters of credit fees	57	51	11.8	47	8.5
Total non-GAAP core fee income (1)	$ 1,181	$ 751	57.3	$ 603	24.5
Investment banking revenue	420	459	(8.5)	414	10.9
Commissions	98	79	24.1	67	17.9
Total non-GAAP SVB Securities revenue (2)	$ 518	$ 538	(3.7)	$ 481	11.9
Total non-GAAP core fee income plus SVB Securities revenue (3)	$ 1,699	$ 1,289	31.8	$ 1,084	18.9

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(1) This non-GAAP measure represents noninterest income, but excludes (i) certain line items where performance is typically subject to market or other conditions beyond our control, (ii) our investment banking revenue and commissions and (iii) other noninterest income. See "Use of Non-GAAP Measures" above.
(2) Non-GAAP SVB Securities revenue represents noninterest income, but excludes (i) certain line items where performance is typically subject to market or other conditions beyond our control, (ii) non-GAAP core fee income and (iii) other noninterest income. See "Use of Non-GAAP Measures" above.
(3) Non-GAAP core fee income plus SVB Securities revenue represents noninterest income, but excludes (i) certain line items where performance is typically subject to market or other conditions beyond our control and (ii) other noninterest income. See "Use of Non-GAAP Measures" above.

Client Investment Fees

We offer a variety of investment products on which we earn fees. These products include money market mutual funds, overnight repurchase agreements and sweep money market funds available through the Bank and fixed income management services offered through SVB Asset Management, our investment advisory subsidiary.

Client investment fees were $386 million in 2022, compared to $75 million in 2021. The increase was reflective of improved fee margins resulting from higher short-term interest rates driven by the 2022 Federal Funds rate increases. A summary of client investment fees by type for 2022 , 2021 and 2020 is as follows:

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Client investment fees by type:					
Sweep money market fees	$ 215	$ 43	NM	$ 74	(41.9)%
Asset management fees	57	31	83.9	43	(27.9)
Repurchase agreement fees	114	1	NM	15	(93.3)
Total client investment fees	$ 386	$ 75	NM	$ 132	(43.2)

The following table summarizes average client investment funds for 2022, 2021 and 2020:

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Sweep money market funds	$ 89,305	$ 88,913	0.4 %	$ 50,828	74.9 %
Managed client investment funds (1)	85,922	78,450	9.5	56,473	38.9
Repurchase agreements	13,888	13,830	0.4	10,079	37.2
Total average client investment funds (2)	$ 189,115	$ 181,193	4.4	$ 117,380	54.4

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(1) These funds represent investments in third-party money market mutual funds and fixed-income securities managed by SVB Asset Management.
(2) Client investment funds are maintained at third-party financial institutions and are not recorded on our balance sheet.

The following table summarizes period-end client investment funds at December 31, 2022, 2021 and 2020:

	December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Sweep money market funds	$ 64,262	$ 109,241	(41.2)%	$ 59,844	82.5 %
Managed client investment funds (1)	89,392	85,475	4.6	70,671	20.9
Repurchase agreements	14,723	15,370	(4.2)	10,538	45.9
Total period-end client investment funds (2)	$ 168,377	$ 210,086	(19.9)	$ 141,053	48.9

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(1) These funds represent investments in third-party money market mutual funds and fixed-income securities managed by SVB Asset Management.
(2) Client investment funds are maintained at third-party financial institutions and are not recorded on our balance sheet.

Wealth Management and Trust Fees

Wealth management and trust fees was a new core fee income line item for the year ended 2021 reflective of the acquisition of Boston Private. Wealth management and trust fees were $83 million in 2022 as compared to $44 million in 2021. The increase was due to the acquisition of Boston Private occurring in the third quarter of 2021. A summary of wealth management and trust fees for 2022, 2021 and 2020 is as follows:

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Wealth management and trust fees by type:					
Wealth management fees	$ 75	$ 40	87.5 %	$ —	— %
Trust fees	8	4	100.0	—	—
Total wealth management and trust fees	$ 83	$ 44	88.6	$ —	—

The following table summarizes the activity and balances relating to SVB Private AUM and AUA for the years ended December 31, 2022 and December 31, 2021.

	Year ended December 31,	
(Dollars in millions)	**2022**	**2021**
Beginning balance AUM / AUA (1)	$ 19,646	$ 1,667
AUM / AUA acquired (2)	—	17,980
Net flows	329	(922)
Market returns	(2,681)	921
Ending balance AUM / AUA (3)	17,294	19,646

(1) Represents SVB Private AUM previously reported in off-balance sheet managed client investment funds for the year ended December 31, 2020.
(2) Represents $15.9 billion of AUM and $2.1 billion of AUA acquired from the acquisition of Boston Private on July 1, 2021.
(3) Includes approximately $14.8 billion and $16.8 billion of AUM at December 31, 2022 and 2021, respectively.

Foreign Exchange Fees

Foreign exchange fees were $285 million in 2022, compared to $262 million in 2021. The increase in foreign exchange fees was driven primarily by increases in forward and spot contract commissions reflective of the increased volume of client trades. A summary of foreign exchange fees by instrument type for 2022, 2021 and 2020 is as follows:

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Foreign exchange fees by instrument type:					
Foreign exchange contract commissions	$ 282	$ 260	8.5 %	$ 178	46.1
Option premium fees	3	2	50.0	1	100.0
Total foreign exchange fees	$ 285	$ 262	8.8	$ 179	46.4

Credit Card Fees

Credit card fees were $150 million in 2022, compared to $131 million in 2021. Credit card fees increased due to higher transaction volumes reflective of increased spending and client growth, as well as higher travel spending, compared to the comparable 2021 periods when travel was down due to the impact of COVID-19. A summary of credit card fees by instrument type for 2022, 2021 and 2020 is as follows:

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Credit card fees by instrument type:					
Card interchange fees, net	$ 117	$ 108	8.3 %	$ 76	42.1 %
Merchant service fees	26	18	44.4	18	—
Card service fees	7	5	40.0	4	25.0
Total credit card fees	$ 150	$ 131	14.5	$ 98	33.7

Deposit Service Charges

Deposit service charges were $126 million in 2022, compared to $112 million in 2021. Deposit service charges increased primarily driven by higher volumes of our transaction-based fee products.

Lending Related Fees

Lending related fees were $94 million in 2022, compared to $76 million in 2021. The increase was primarily due to an increase in unused commitment fees associated with an increase in unfunded credit commitments. A summary of lending related fees by type for 2022, 2021 and 2020 is as follows:

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Lending related fees by instrument type:					
Unused commitment fees	$ 70	$ 59	18.6 %	$ 42	40.5 %
Other	24	17	41.2	15	13.3
Total lending related fees	$ 94	$ 76	23.7	$ 57	33.3

Letters of Credit and Standby Letters of Credit Fees

Letters of credit and standby letters of credit fees were $57 million in 2022, compared to $51 million in 2021. The increase was primarily driven by growth in commitment balances.

Investment Banking Revenue

Investment banking revenue was $420 million in 2022, compared to $459 million in 2021. The decrease was primarily driven by the slowdown in public markets, which limited underwriting fees, partially offset by increased advisory fees reflective of past hiring and investment to expand our investment banking capabilities. A summary of investment banking revenue by type for 2022, 2021 and 2020 is as follows:

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Investment banking revenue:					
Underwriting fees	$ 163	$ 304	(46.4)%	$ 353	(13.9)%
Advisory fees	214	90	137.8	40	125.0
Private placements and other	43	65	(33.8)	21	NM
Total investment banking revenue	$ 420	$ 459	(8.5)	$ 414	10.9

Commissions

Commissions were $98 million in 2022, compared to $79 million in 2021. Commissions include commissions received from clients for the execution of agency-based brokerage transactions in listed and over-the-counter equities. The Company also earns subscription fees for market intelligence services that are recognized over the period in which they are delivered.

Fees received before the subscription period ends are initially recorded as deferred revenue (a contract liability) in other liabilities in our consolidated balance sheet. The increase in commissions was driven by subscription fees, which are new to core fee income due to the acquisition of MoffettNathanson in December 2021.

Other Noninterest Income

Other noninterest income in 2022 was $166 million, compared to $128 million in 2021. The increase was primarily due to the $40 million increase in fair value of the instrument hedging of certain funds within our managed fund of funds portfolio.

Noninterest Expense

A summary of noninterest expense for 2022, 2021 and 2020 is as follows:

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Compensation and benefits	$ 2,293	$ 2,015	13.8 %	$ 1,318	52.9 %
Professional services	480	392	22.4	247	58.7
Premises and equipment	269	178	51.1	127	40.2
Net occupancy	101	83	21.7	101	(17.8)
Business development and travel	85	24	NM	24	—
FDIC and state assessments	75	48	56.3	28	71.4
Merger-related charges	50	129	(61.2)	—	—
Other	268	201	33.3	190	5.8
Total noninterest expense	$ 3,621	$ 3,070	17.9	$ 2,035	50.9

Compensation and Benefits Expense

The following table provides a summary of our compensation and benefits expense:

	Year ended December 31,				
(Dollars in millions, except employees)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Compensation and benefits:					
Salaries and wages	$ 1,080	$ 721	49.8 %	$ 516	39.7 %
Incentive compensation plans	668	784	(14.8)	464	69.0
Other employee incentives and benefits (1)	545	510	6.9	338	50.9
Total compensation and benefits	$ 2,293	$ 2,015	13.8	$ 1,318	52.9
Period-end FTEs	8,553	6,567	30.2	4,461	47.2
Average FTEs	7,817	5,466	43.0	4,040	35.3

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(1) Other employee incentives and benefits includes employer payroll taxes, group health and life insurance, share-based compensation, 401(k), ESOP, warrant and other incentive plans, retention plans, agency fees and other employee-related expenses.

Compensation and benefits expense was $2.3 billion in 2022, compared to $2.0 billion in 2021. The key factors driving the increase in compensation and benefits expense in 2022 were as follows:

- An increase of $359 million in salaries and wages expense and an increase of $35 million in other employee incentives and benefits were primarily due to an increase in FTE employees, as we continue to invest in our revenue-generating lines of business, support and risk management functions as well as the impact of annual merit increases, partially offset by
- A decrease of $116 million in incentive compensation plans expense related primarily to a decrease in our incentive compensation plan accrual as a result of our 2022 results, partially offset by an increase in the number of plan participants along with higher incentive compensation targets driven by annual salary increases and promotions.

Professional Services

Professional services expense was $480 million in 2022, compared to $392 million in 2021. The increase was driven by higher consulting fees associated with our initiatives related to our regulatory programs as well as continued investments in our infrastructure and operating projects to support our presence both domestically and internationally.

Premises and Equipment

Premises and equipment expense was $269 million in 2022, compared to $178 million in 2021. The increase was primarily related to higher computer software support and maintenance fees driven by new contracts and the renewal of existing contracts as well as an increase in software project depreciation.

Net Occupancy

Net occupancy expense was $101 million in 2022, compared to $83 million in 2021. The increase was driven by increased amortization expenses on new leases and extensions, a full year impact of the Boston Private acquisition and expansion of the SVB Securities team to support individuals hired throughout 2021.

Business Development and Travel

Business development and travel expense was $85 million in 2022, compared to $24 million in 2021. The increase was primarily due to the continued easing of COVID-19 restrictions on in-person meetings and travel that were previously in place.

FDIC and State Assessments

FDIC and state assessments expense was $75 million in 2022, compared to $48 million in 2021. The increase was due primarily to the increase in our average deposits as well as the acquisition of Boston Private deposits in 2021.

Merger-related Charges

Merger-related charges was a new noninterest expense line item for 2021 as a result of the Boston Private acquisition. A summary of merger-related charges, which includes direct acquisition costs for the years ended 2022 and 2021 is as follows:

	Year ended December 31,	
(Dollars in millions)	**2022**	**2021**
Personnel-related	$ 7	$ 17
Occupancy and facilities	4	39
Professional services	18	56
Systems integration and related charges	21	17
Total merger-related charges	$ 50	$ 129

Other Noninterest Expense

Other noninterest expense was $268 million in 2022, compared to $201 million in 2021. This increase was driven by higher amortization expense of intangible assets primarily related to Boston Private, higher expenses related to increased lending, deposit and other client-related processing costs and higher advertising and promotional expenses.

Operating Efficiency Ratio

Our operating efficiency ratio increased to 58.28 percent for the year ended December 31, 2022, compared to 51.88 percent for the year ended December 31, 2021. This increase was driven by lower noninterest income driven by net losses on investment securities as well as lower net gains on equity warrant assets and higher noninterest expense driven by increased compensation and benefits expense. These changes were partially offset by higher net interest income driven by higher yields as well as increases in average balances of our fixed income investment securities and loans.

Income Taxes

Our effective income tax rate was 25.2 percent in 2022, compared to 26.2 percent in 2021. The decrease in our effective tax rate for the year ended December 31, 2022, was attributable to increased state tax and tax-exempt interest benefits. Our effective tax rate is calculated by dividing income tax expense by the sum of income before income tax expense and the net income attributable to NCI. The components of our effective tax rates for 2022 and 2021 are discussed in Note 18—"Income Taxes" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report.

The Inflation Reduction Act (IRA) of 2022 was signed into law in August 2022. Among other things, the IRA introduced a new corporate alternative minimum tax (CAMT) on public corporations with financial profits over $1 billion. The CAMT will apply to tax years beginning after December 31, 2022, and we are evaluating its impact on the Company.

Net Loss (Income) Attributable to NCI

Included in net loss (income) is loss (income) and expense attributable to NCI. The relevant amounts allocated to investors in our consolidated subsidiaries, other than us, are reflected under "net loss (income) attributable to noncontrolling interests" on our consolidated statements of income.

In the table below, noninterest loss (income) consists primarily of net investment gains and losses from our consolidated funds. Noninterest expense is primarily related to management fees paid by our managed funds to SVB Financial's subsidiaries as the managed funds' general partners. A summary of net loss (income) attributable to NCI for 2022, 2021 and 2020 is as follows:

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Noninterest loss (income) (1)	$ 64	$ (124)	(151.6)	$ (29)	NM
Noninterest expense (1)	1	1	—	—	—
Carried interest allocation (2)	(2)	(117)	(98.3)	(57)	105.3
Net loss (income) attributable to noncontrolling interests	$ 63	$ (240)	(126.3)	$ (86)	179.1

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(1) Represents NCI's share in noninterest income or loss.
(2) Represents the preferred allocation of income (or change in income) earned by us as the general partner of certain consolidated funds.

Net loss attributable to NCI was $63 million in 2022, compared to net income attributable to NCI of $240 million in 2021. Net loss attributable to NCI of $63 million for the year ended December 31, 2022, was driven primarily by net losses on investment securities (including carried interest allocation) from unrealized valuation decreases of our managed funds of funds portfolio and our SVB Securities funds.

Net income attributable to NCI was $240 million in 2021, compared to $86 million in 2020. Net income attributable to NCI of $240 million for the year ended December 31, 2021 was driven primarily by net gains on investment securities (including carried interest allocation) from unrealized valuation of our managed funds of funds and our SVB Securities funds.

Operating Segment Results

We have four segments for which we report our financial information: Silicon Valley Bank, SVB Private, SVB Capital and SVB Securities.

We report segment information based on the "management" approach. The management approach designates the internal reporting used by management for making decisions and assessing performance as the source of our reporting segments. Please refer to Note 24—"Segment Reporting" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report for additional details.

Our Silicon Valley Bank and SVB Private segments' primary source of revenue is from net interest income, which is primarily the difference between interest earned on loans, net of FTP and interest paid on deposits, net of FTP. Accordingly, these segments are reported using net interest income, net of FTP. FTP is the mechanism by which a funding credit is given for deposits raised, and a funding charge is made for funded loans.

The following is our reportable segment information for 2022, 2021 and 2020:

Silicon Valley Bank

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Net interest income	$ 4,118	$ 2,914	41.3 %	$ 1,990	46.4 %
Provision for credit losses	(277)	(55)	NM	(166)	(66.9)
Noninterest income	1,107	706	56.8	604	16.9
Noninterest expense	(1,557)	(1,266)	23.0	(1,011)	25.2
Income before income tax expense	$ 3,391	$ 2,299	47.5	$ 1,417	62.2
Total average loans, amortized cost	$ 54,647	$ 43,145	26.7	$ 30,116	43.3

Total average assets	175,221	140,362	24.8	73,929	89.9
Total average deposits	172,106	138,057	24.7	71,911	92.0

Income before income tax expense from Silicon Valley Bank increased to $3.4 billion in 2022, compared to $2.3 billion in 2021. The key components of Silicon Valley Bank's performance are discussed below.

NII from Silicon Valley Bank increased by $1.2 billion in 2022, due primarily from increases in deposit funding credits, yields and average loans, partially offset by higher interest rates on deposits as well as increases in average balances of interest-bearing deposits.

The provision for credit losses was $277 million for 2022, compared to a provision of $55 million for 2021. The provision for 2022 was driven by a deterioration in projected economic conditions, as well as growth in funded loans and unfunded commitments.

Noninterest income increased by $401 million in 2022, related primarily to an overall increase in our non-GAAP core fee income. The overall increase was primarily due to higher client investment fees driven by improved fee margins resulting from higher short-term interest rates as a result of the 2022 Federal Funds rate hikes, higher foreign exchange fees primarily due to increases in spot contract commissions reflective of the increased volume of client trades, credit card fees driven by higher transaction volumes reflective of increased spending and client growth, as well as higher travel spending compared to 2021 when COVID-19 restrictions where in place.

Noninterest expense increased by $291 million in 2022, primarily due to compensation and benefits expense, business development and travel expenses and premises and equipment expense. Compensation and benefits expense increased as a result of higher salaries and wages expenses. Salaries and wages expense increased primarily due to an increase in FTE employees as we continue to invest in our business, as well as from the impact of annual merit increases. Premises and equipment expense increased due to higher software support and maintenance fees as well as an increase in software depreciation. Business development and travel expense increased due to the easing of COVID-19 restrictions on in-person meetings and travel that were previously in place.

SVB Private

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Net interest income	$ 407	$ 226	80.1 %	$ 112	101.8 %
Provision for credit losses	(10)	(14)	(28.6)	(21)	(33.3)
Noninterest income	96	58	65.5	5	NM
Noninterest expense	(361)	(223)	61.9	(55)	NM
Income before income tax expense	$ 132	$ 47	180.9	$ 41	14.6
Total average loans, amortized cost	$ 14,934	$ 9,986	49.5	$ 5,298	88.5
Total average assets	16,637	11,171	48.9	5,335	109.4
Total average deposits	12,884	8,924	44.4	2,388	NM

Income before income tax expense from SVB Private increased to $132 million in 2022, compared to $47 million in 2021. The key drivers of SVB Private's performance are discussed below:

NII increased by $181 million in 2022, from the comparable 2021 period, as average loans increased driven primarily by the acquisition of Boston Private, as well as strong loan growth, higher yields and higher deposit funding credits, partially offset by higher rates on deposits, average balances of interest-bearing deposits and loan funding charges.

The provision for credit losses was $10 million for 2022 driven primarily by a deterioration in projected economic conditions and loan growth.

Noninterest income increased by $38 million in 2022 primarily due to wealth management and trust fees, which was a new financial statement line item for the third quarter of 2021 as a result of the Boston Private acquisition.

Noninterest expense increased $138 million in 2022 related primarily due to compensation and benefits expense. Compensation and benefits expense increased as a result of an increase in average number of FTE employees primarily due to the acquisition of Boston Private.

SVB Capital

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Noninterest (loss) income	$ (110)	$ 487	(122.6)%	$ 226	115.5 %
Noninterest expense	(70)	(71)	(1.4)	(51)	39.2
(Loss) income before income tax expense	$ (180)	$ 416	(143.3)	$ 175	137.7
Total average assets	$ 942	$ 700	34.6	$ 437	60.2

SVB Capital's components of noninterest income primarily include net gains and losses on non-marketable and other equity securities, carried interest and fund management fees. All components of income before income tax expense discussed below are net of NCI.

We experience variability in the performance of SVB Capital from period to period due to a number of factors, including changes in the values of our funds' underlying investments, changes in the amount of distributions and general economic and market conditions. Such variability may lead to volatility in the gains and losses from investment securities and cause our results to differ from period to period.

SVB Capital had a noninterest loss of $110 million in 2022, compared to noninterest income of $487 million in 2021. The decrease in noninterest income was primarily due to reduced valuations reflecting adverse market conditions during 2022 which drove net losses on investment securities, net of NCI, of $175 million for 2022, compared to net gains on investment securities, net of NCI, of $398 million for 2021.

SVB Securities

	Year ended December 31,				
(Dollars in millions)	**2022**	**2021**	**% Change 2022/2021**	**2020**	**% Change 2021/2020**
Net interest income	$ 3	$ 1	200.0 %	$ 1	— %
Noninterest income	505	608	(16.9)	497	22.3
Noninterest expense	(603)	(561)	7.5	(379)	48.0
(Loss) income before income tax expense	$ (95)	$ 48	NM	$ 119	(59.7)
Total average assets	$ 936	$ 830	12.8	$ 557	49.0

SVB Securities' components of noninterest income primarily include investment banking revenue, commissions and net gains and losses on non-marketable and other equity securities, carried interest and fund management fees. All components of income before income tax expense discussed below are net of NCI.

Noninterest income decreased $103 million to $505 million in 2022. The $103 million decrease in noninterest income was driven primarily by lower investment banking revenue during 2022 due to the slowdown in capital market transactions as a result of market volatility, partially offset by an increase in commissions driven by subscription fees related to the acquisition of MoffettNathanson in December 2021 and an increase in advisory fees reflective of hiring during 2021. SVB Securities also includes fund investments which also negatively impacted noninterest income in 2022.

Noninterest expense increased $42 million to $603 million in 2022. The $42 million increase in noninterest expense was driven primarily by an increase in compensation and benefits expense due to an increase in strategic hires during 2021 to support the continued expansion of SVB Securities.

Consolidated Financial Condition

Our total assets, and total liabilities and stockholders' equity were $211.8 billion at December 31, 2022, and $211.3 billion at December 31, 2021. Please refer below to a summary of the individual components driving the changes in total assets, total liabilities and stockholders' equity.

Cash and Cash Equivalents

Cash and cash equivalents totaled $13.8 billion at December 31, 2022, a decrease of $783 million, or 5.4 percent, compared to $14.6 billion at December 31, 2021. The decrease was primarily driven by a decrease in interest-earning deposits in other financial institutions. As of December 31, 2022, $7.8 billion of our cash and due from banks was deposited at the FRB and was earning interest at the Federal Funds target rate, and interest-earning deposits in other financial institutions were $4.0 billion. As of December 31, 2021, $5.7 billion, of our cash and due from banks was deposited at the FRB and was earning interest at the Federal Funds target rate and interest-earning deposits in other financial institutions were $5.8 billion.

Investment Securities

Investment securities totaled $120.1 billion at December 31, 2022, a decrease of $7.9 billion, or 6.2 percent, compared to $128.0 billion at December 31, 2021. Our investment securities portfolio is comprised of: (i) an AFS securities portfolio and a HTM securities portfolio, both of which represents interest-earning fixed income investment securities and (ii) a non-marketable and other equity securities portfolio, which primarily represents investments managed as part of our funds management business, investments in qualified affordable housing projects, as well as public equity securities held as a result of equity warrant assets exercised. The major components of the change in investment securities are explained below.

The following table presents a profile of our investment securities portfolio at December 31, 2022 and December 31, 2021:

	December 31,	
(Dollars in millions)	**2022**	**2021**
AFS securities, at fair value:		
U.S. Treasury securities	$ 16,135	$ 15,850
U.S. agency debentures	101	196
Foreign government debt securities	1,088	61
Residential MBS:		
Agency-issued MBS	6,603	8,589
Agency-issued CMO—fixed rate	678	982

Agency-issued CMBS	1,464	1,543
Total AFS securities	26,069	27,221
HTM securities, at net carry value:		
U.S. agency debentures	486	609
Residential MBS:		
Agency-issued MBS	57,705	64,439
Agency-issued CMO—fixed rate	10,461	10,226
Agency-issued CMO—variable rate	79	100
Agency-issued CMBS	14,471	14,959
Municipal bonds and notes	7,416	7,156
Corporate bonds	703	706
Total HTM securities	91,321	98,195
Non-marketable and other equity securities:		
Non-marketable securities (fair value accounting):		
Consolidated venture capital and private equity fund investments	147	130
Unconsolidated venture capital and private equity fund investments	110	208
Other investments without a readily determinable fair value	183	164
Other equity securities in public companies (fair value accounting)	32	117
Non-marketable securities (equity method accounting):		
Venture capital and private equity fund investments	605	671
Debt funds	5	5
Other investments	276	294
Investments in qualified affordable housing projects, net	1,306	954
Total non-marketable and other equity securities	2,664	2,543
Total investment securities	$ 120,054	$ 127,959

Available-for-Sale Securities

Period-end AFS securities were $26.1 billion at December 31, 2022, a decrease of $1.1 billion, or 4.2 percent, compared to $27.2 billion at December 31, 2021. The $1.1 billion decrease in period-end AFS securities balances from December 31, 2021, to December 31, 2022, was driven by a the sale of $9.5 billion of AFS securities and a $2.4 billion decrease in the fair value of our AFS securities portfolio, reflective of higher interest rates, as well as paydowns and maturities of AFS securities of $1.5 billion, partially offset by $12.7 billion of purchases.

The following table summarizes the remaining contractual principal maturities and fully taxable equivalent yields on fixed income securities, carried at fair value, classified as AFS as of December 31, 2022. The weighted average yield is computed using the amortized cost of fixed income investment securities. For U.S. Treasury securities, U.S. agency debentures and foreign government debt securities, the expected maturity is the actual contractual maturity of the notes. Expected remaining maturities for certain U.S. agency debentures may occur earlier than their contractual maturities because the note issuers have the right to call outstanding amounts ahead of their contractual maturity. Expected maturities for MBS may differ significantly from their contractual maturities because mortgage borrowers have the right to prepay outstanding loan obligations with or without penalties. MBS classified as AFS typically have original contractual maturities from 10 to 30 years whereas expected average lives of these securities tend to be significantly shorter and vary based upon structure and prepayments in lower interest rate environments. The expected yield on MBS is based on prepayment assumptions at the purchase date. Actual yields earned may differ significantly based upon actual prepayments.

	December 31, 2022									
	Total		One Year or Less		After One Year to Five Years		After Five Years to Ten Years		After Ten Years	
(Dollars in millions)	Carrying Value	Weighted Average Yield	Carrying Value	Weighted Average Yield	Carrying Value	Weighted Average Yield	Carrying Value	Weighted Average Yield	Carrying Value	Weighted Average Yield
U.S. Treasury securities	$ 16,135	1.49 %	$ 983	1.16 %	$ 14,373	1.43 %	$ 779	2.96 %	$ —	— %
U.S. agency debentures	101	4.15	—	—	33	4.47	68	4.02	—	—
Foreign government debt securities	1,088	2.12	101	1.06	52	2.29	935	2.21	—	—
Residential MBS:										
Agency-issued MBS	6,603	1.54	—	—	—	—	43	2.86	6,560	1.53
Agency-issued CMO - fixed rate	678	1.33	—	—	—	—	—	—	678	1.33
Agency-issued CMBS	1,464	1.89	—	—	326	2.21	1,138	1.84	—	—
Total	$ 26,069	1.56	$ 1,084	1.15	$ 14,784	1.46	$ 2,963	2.32	$ 7,238	1.51

Held-to-Maturity Securities

Period-end HTM securities were $91.3 billion as of December 31, 2022, a decrease of $6.9 billion, or 7.0 percent, compared to $98.2 billion as of December 31, 2021. The $6.9 billion decrease in period-end HTM securities balances from December 31, 2021, to December 31, 2022, was driven by $11.5 billion in paydowns and maturities, partially offset by purchases of $5.0 billion.

Securities classified as HTM are accounted for at cost with no adjustments for changes in fair value. For securities re-designated as HTM from AFS, the net unrealized gains or losses at the date of transfer will continue to be reported as a separate component of shareholders' equity and amortized over the life of the securities in a manner consistent with the amortization of a premium or discount.

The following table summarizes the remaining contractual principal maturities based on net carry value, which is the amortized cost net of ACL of $6 million, and fully taxable equivalent yields on fixed income investment securities classified as HTM as of December 31, 2022. Interest income on certain municipal bonds and notes (non-taxable investments) are presented on a fully taxable equivalent basis using the federal statutory tax rate of 21.0 percent. The weighted average yield is computed using the amortized cost of fixed income investment securities. For U.S. agency debentures, the expected maturity is the actual contractual maturity of the notes. Expected maturities for MBS may differ significantly from their contractual maturities because mortgage borrowers have the right to prepay outstanding loan obligations with or without penalties. MBS classified as HTM typically have original contractual maturities from 10 to 30 years whereas expected average lives of these securities tend to be significantly shorter and vary based upon structure and prepayments in lower interest rate environments. The expected yield on MBS is based on prepayment assumptions at the purchase date. Actual yields earned may differ significantly based upon actual prepayments.

	December 31, 2022									
	Total		One Year or Less		After One Year to Five Years		After Five Years to Ten Years		After Ten Years	
(Dollars in millions)	Net Carry Value	Weighted Average Yield	Net Carry Value	Weighted Average Yield	Net Carry Value	Weighted Average Yield	Net Carry Value	Weighted Average Yield	Net Carry Value	Weighted Average Yield
U.S. agency debentures	$ 486	1.91 %	$ 1	2.39 %	$ 118	2.50 %	$ 367	1.72 %	$ —	— %
Residential MBS:										
Agency-issued MBS	57,705	1.56	—	1.65	25	2.38	1,066	2.32	56,614	1.54
Agency-issued CMO - fixed rate	10,461	1.48	—	—	90	1.47	129	1.71	10,242	1.48
Agency-issued CMO - variable rate	79	0.74	—	—	—	—	—	—	79	0.74
Agency-issued CMBS	14,471	1.63	39	0.45	153	0.86	966	1.93	13,313	1.62
Municipal bonds and notes	7,416	2.82	29	2.26	235	2.48	1,362	2.74	5,790	2.85
Corporate bonds	703	1.86	—	—	115	1.72	588	1.88	—	—
Total	$ 91,321	1.66	$ 69	1.25	$ 736	1.90	$ 4,478	2.43	$ 86,038	1.63

Portfolio duration is a standard measure used to approximate changes in the market value of fixed income instruments due to a change in market interest rates. The measure is an estimate based on the level of current market interest rates, expectations for changes in the path of forward rates and the effect of forward rates on mortgage prepayment speed assumptions. As such, portfolio duration will fluctuate with changes in market interest rates. Changes in portfolio duration are also impacted by changes in the mix of longer versus shorter term-to-maturity securities. The estimated weighted-average duration of our fixed income investment securities portfolio was 5.7 and 4.0 years at December 31, 2022, and December 31, 2021, respectively. The weighted-average duration of our total fixed income securities portfolio including the impact of our fair value swaps was 5.6 years at December 31, 2022, and 3.7 years December 31, 2021. The weighted-average duration of our AFS securities portfolio was 3.6 years at December 31, 2022, and 3.5 years at December 31, 2021. The weighted-average duration of our AFS securities portfolio including the impact of our fair value swaps was 3.6 years and 2.4 year at December 31, 2022, and December 31, 2021, respectively. The weighted-average duration of our HTM securities portfolio was 6.2 years at December 31, 2022, and 4.1 years at December 31, 2021.

Non-Marketable and Other Equity Securities

Our non-marketable and other equity securities portfolio primarily represents investments in venture capital and private equity funds, SPD-SVB, debt funds, private and public portfolio companies, including public equity securities held as a result of equity warrant assets exercised and qualified affordable housing projects. Included in our non-marketable and other equity securities carried under fair value accounting are amounts that are attributable to NCI. We are required under GAAP to consolidate 100% of these investments that we are deemed to control, even though we may own less than 100% of such entities. See below for a summary of the carrying value (as reported) of non-marketable and other equity securities compared to the amounts attributable to SVBFG.

Non-marketable and other equity securities were $2.7 billion ($2.4 billion net of NCI) at December 31, 2022, an increase of $121 million, or 4.8 percent, compared to $2.5 billion ($2.2 billion net of NCI) at December 31, 2021.

The following table summarizes the carrying value (as reported) of non-marketable and other equity securities compared to the amounts attributable to SVBFG (which generally represents the carrying value times our ownership percentage) at December 31, 2022, and December 31, 2021:

(Dollars in millions)	December 31, 2022 Carrying value (as reported)	2022 Amount attributable to SVBFG	2021 Carrying value (as reported)	2021 Amount attributable to SVBFG
Non-marketable and other equity securities:				
Non-marketable securities (fair value accounting):				
Consolidated venture capital and private equity fund investments (1)	$ 147	$ 107	$ 130	$ 36
Unconsolidated venture capital and private equity fund investments (2)	110	110	208	208
Other investments without a readily determinable fair value (3)	183	183	164	164
Other equity securities in public companies (fair value accounting) (4)	32	32	117	117
Non-marketable securities (equity method accounting) (5):				
Venture capital and private equity fund investments	605	353	671	397
Debt funds	5	5	5	5
Other investments	276	276	294	294
Investments in qualified affordable housing projects, net	1,306	1,306	954	954
Total non-marketable and other equity securities	$ 2,664	$ 2,372	$ 2,543	$ 2,175

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(1) The following table shows the amounts of venture capital and private equity fund investments held by the following consolidated funds and amounts attributable to SVBFG for each fund at December 31, 2022, and December 31, 2021:

(Dollars in millions)	December 31, 2022 Carrying value (as reported)	2022 Amount attributable to SVBFG	2021 Carrying value (as reported)	2021 Amount attributable to SVBFG
Strategic Investors Fund, LP	$ 2	$ —	$ 2	$ —
Capital Preferred Return Fund, LP	28	6	61	13
Growth Partners, LP	24	8	67	23
Redwood Evergreen Fund, LP	93	93	—	—
Total consolidated venture capital and private equity fund investments	$ 147	$ 107	$ 130	$ 36

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(2) The carrying value represents investments in 136 and 150 funds (primarily venture capital funds) at December 31, 2022, and December 31, 2021, respectively, where our ownership interest is typically less than 5% of the voting interests of each such fund and in which we do not have the ability to exercise significant influence over the partnerships' operating activities and financial policies. Our unconsolidated venture capital and private equity fund investments are carried at fair value based on the fund investments' net asset values per share as obtained from the general partners of the funds. For each fund investment, we adjust the net asset value per share for differences between our measurement date and the date of the fund investment's net asset value by using the most recently available financial information from the investee general partner, for example September 30th, for our December 31st consolidated financial statements, adjusted for any contributions paid, distributions received from the investment, and significant fund transactions or market events during the reporting period.

(3) Investments classified as "Other investments without a readily determinable fair value" include direct equity investments in private companies. The carrying value is based on the price at which the investment was acquired plus or minus changes resulting from observable price changes in orderly transactions for identical or similar investments. We consider a range of factors when adjusting the fair value of these investments, including, but not limited to, the term and nature of the investment, local market conditions, values for comparable securities, current and projected operating performance, exit strategies, financing transactions subsequent to the acquisition of the investment and a discount for certain investments that have lock-up restrictions or other features that indicate a discount to fair value is warranted. For further details on the carrying value of these investments refer to Note 9—"Investment Securities" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report.

(4) Investments classified as other equity securities (fair value accounting) represent shares held in public companies as a result of exercising public equity warrant assets and direct equity investments in public companies held by our consolidated funds. Changes in the fair value recognized through net income.

(5) The following table shows the carrying value and our ownership percentage of each investment at December 31, 2022, and December 31, 2021, (equity method accounting):

(Dollars in millions)	December 31, 2022 Carrying value (as reported)	December 31, 2022 Amount attributable to SVBFG	December 31, 2021 Carrying value (as reported)	December 31, 2021 Amount attributable to SVBFG
Venture capital and private equity fund investments:				
Strategic Investors Fund II, LP	$ 2	$ 1	$ 3	$ 3
Strategic Investors Fund III, LP	12	10	25	21
Strategic Investors Fund IV, LP	21	18	36	30
Strategic Investors Fund V funds	58	30	87	45
CP II, LP (i)	1	1	2	1
Other venture capital and private equity fund investments	511	293	518	298
Total venture capital and private equity fund investments	$ 605	$ 353	$ 671	$ 398
Debt funds:				
Gold Hill Capital 2008, LP (ii)	$ 4	$ 4	$ 4	$ 4
Other debt funds	1	1	1	1
Total debt funds	$ 5	$ 5	$ 5	$ 5
Other investments:				
SPD Silicon Valley Bank Co., Ltd.	$ 146	$ 146	$ 154	$ 154
Other investments	130	130	140	140
Total other investments	$ 276	$ 276	$ 294	$ 294

(i) Our ownership includes direct ownership interest of 1.3 percent and indirect ownership interest of 3.8 percent through our investments in Strategic Investors Fund II, LP.

(ii) Our ownership includes direct ownership interest of 11.5 percent in the fund and an indirect interest in the fund through our investment in Gold Hill Capital 2008, LLC of 4.0 percent.

Volcker Rule

The Volcker Rule prohibits, subject to certain exceptions, a banking entity, such as the Company, from sponsoring, investing in, or having certain relationships with covered funds. Under the currently effective regulations implementing the Volcker Rule, covered funds are defined to include many venture capital and private equity funds.

In 2017, we received notice that the Federal Reserve approved the Company's application for an extension of the permitted conformance period for the Company's investments in "illiquid" covered funds ("Restricted Volcker Investments"). The approval extended the deadline by which the Company must sell, divest, restructure or otherwise conform Restricted Volcker Investments by July 2022. As a result of various subsequent amendments to the Volcker Rule, we believe that substantially all of our Restricted Volcker Investments (i) qualify for new exclusions under the amended rules, (ii) otherwise are excluded from the definition of "covered fund" or (iii) commenced or completed a liquidation or dissolution process prior to July 2022 (For more information about the Volcker Rule, see "Business — Supervision and Regulation" under Part 1, Item 1 of our 2022 Form 10-K).

Loans

Loans at amortized cost increased by $8.0 billion to $74.3 billion at December 31, 2022, compared to $66.3 billion at December 31, 2021. Unearned income, deferred fees and costs and net unamortized premiums and discounts was $283 million at December 31, 2022, and $250 million at December 31, 2021. The increase in period-end loans was driven primarily by our Global Fund Banking, Technology and Life Science/Healthcare and Private Bank loan portfolios.

Loan Concentration

Loan concentrations may exist when there are borrowers engaged in similar activities or types of loans extended to a diverse group of borrowers that could cause those borrowers or portfolios to be similarly impacted by economic or other conditions. A substantial percentage of our loans are commercial in nature. The breakdown of total loans and loans as a percentage of total loans by class of financing receivables is as follows:

(Dollars in millions)	December 31, 2022 Amount	2022 Percentage	2021 Amount	2021 Percentage
Global fund banking	$ 41,269	55.6 %	$ 37,958	57.3 %
Investor dependent:				
Early stage	1,950	2.6	1,593	2.4
Growth stage	4,763	6.4	3,951	5.9
Total investor dependent	6,713	9.0	5,544	8.3
Cash flow dependent - SLBO	1,966	2.6	1,798	2.7
Innovation C&I	8,609	11.6	6,673	10.1
Private bank	10,477	14.1	8,743	13.2
CRE	2,583	3.5	2,670	4.0
Premium wine	1,158	1.6	985	1.5
Other C&I	1,019	1.4	1,257	1.9
Other	433	0.6	317	0.5
PPP	23	—	331	0.5
Total loans	$ 74,250	100.0 %	$ 66,276	100.0 %

The table below details loans that are secured by real estate, at amortized cost as of December 31, 2022, and December 31, 2021.

(Dollars in millions)	December 31, 2022	2021
Private bank:		
Loans for personal residence	$ 8,271	$ 6,939
Loans to eligible employees	584	455
Home equity lines of credit	138	130
Other	131	135
Total private bank loans secured by real estate	$ 9,124	$ 7,659
CRE:		
Multifamily and residential investment	$ 896	$ 1,021
Retail	445	524
Office and medical	519	499
Manufacturing, industrial and warehouse	475	336
Hospitality	116	142
Other	132	148
Total CRE loans secured by real estate	$ 2,583	$ 2,670
Premium wine	911	793
Other	510	334
Total real estate secured loans	$ 13,128	$ 11,456

Our portfolio is focused on three main markets: (i) Global Fund Banking, (ii) Technology and Life Science/Healthcare and (iii) Private Banking. The remainder of the portfolio is made up of various loans including commercial real estate, commercial and industrial and premium wine which collectively may be referred to as (iv) non-technology other.

(i) Global Fund Banking

Our Global Fund Banking loan portfolio includes loans to clients in the private equity/venture capital community. Our lending to private equity/venture capital firms and funds represented 56 percent and 57 percent of total loans at December 31, 2022 and December 31, 2021, respectively. The vast majority of this portfolio consists of capital call lines of credit, the repayment of which is dependent on the payment of capital calls by the underlying limited partner investors in the funds managed by these firms. These facilities are generally governed by meaningful financial covenants oriented towards ensuring that the funds' remaining callable capital is sufficient to repay the loan, and larger commitments (typically provided to larger private equity funds) are typically secured by an assignment of the general partner's right to call capital from the fund's limited partner investors.

(ii) Technology and Life Science/Healthcare

Our Technology and Life Science/Healthcare loan portfolios include loans to clients at the various stages of their life cycles. The classes of financing receivables for our technology and life science/healthcare market segments are classified as Investor Dependent, Cash Flow Dependent - SLBO or Innovation C&I for reporting purposes.

Investor Dependent loans represented nine percent of total loans at December 31, 2022, and eight percent at December 31, 2021. Repayment of these loans may be dependent upon receipt by borrowers of additional equity financing from venture capital firms or other investors, or in some cases a successful sale to a third party or an IPO. These loans are made to companies in both our Early Stage and Growth Stage practices.

Cash Flow Dependent loans for SLBO lending represented three percent of total loans at both December 31, 2022, and December 31, 2021. These loans are typically used to assist a select group of private equity sponsors with the acquisition of businesses, and repayment is generally dependent upon the cash flows of the combined entities.

Innovation C&I loans represented 12 percent of total loans at December 31, 2022, and 10 percent at December 31, 2021. These loans are dependent on either the borrower's cash flows or balance sheet for repayment. Cash flow dependent loans require the borrower to maintain cash flow from operations that is sufficient to service all debt. Balance sheet dependent loans, which include asset-based loans, are structured to require constant current asset coverage in an

amount that exceeds the outstanding debt. Working capital lines and accounts receivable financing, both part of our asset-based lending, each represented approximately two percent and less than one percent of total loans, respectively, at December 31, 2022, and one percent and less than one percent of total loans, respectively, at December 31, 2021.

(iii) Private Banking

Our SVB Private clients are primarily executive leaders and senior investment professionals in the innovation economy, as well as high net worth clients that were primarily acquired as part of the Boston Private acquisition. Our lending to Private Bank clients represented 14 percent of total loans at December 31, 2022, and 13 percent at December 31, 2021. Many of our Private Bank products are secured by real estate, which represented 87 percent of this portfolio at December 31, 2022, and 88 percent at December 31, 2021. These products include mortgage loans, owner-occupied commercial mortgage loans, home equity lines of credit and other secured lending products such as real estate secured loans to eligible employees through our EHOP. The remaining balance of our Private Bank portfolio consists of personal capital call lines of credit, restricted and private stock loans and other secured and unsecured lending products.

(iv) Non-technology Other

In addition to the focus markets above, we have loans to various other clients. This category includes our CRE, Premium Wine, Other C&I and Other classes of financing receivable. CRE loans are generally acquisition financing for commercial properties, such as office buildings, retail properties, apartment buildings and industrial/warehouse space. Premium wine loans are to wine producers, vineyards and wine industry or hospitality businesses across the Western United States. All CRE products and a large portion of premium wine loans are secured by real estate collateral. Other C&I loans include tax-exempt commercial loans to non-for-profit private schools, college, public charter schools and other not-for-profit organizations as well as commercial loans to clients that are not in technology and life sciences/healthcare industries. Our Other class of loans is primarily comprised of construction and land loans for financing new developments or financing improvements to existing buildings, as well as loans made as part of our responsibilities under the CRA.

The following table provides a summary of total loans by size and class of financing receivables. The breakout below is based on total client balances (individually or in the aggregate) as of December 31, 2022:

	December 31, 2022					
(Dollars in millions)	Less than Five Million	Five to Ten Million	Ten to Twenty Million	Twenty to Thirty Million	Thirty Million or More	Total
Global fund banking	$ 1,202	$ 1,743	$ 3,489	$ 3,125	$ 31,710	$ 41,269
Investor dependent:						
Early stage	1,232	440	179	20	86	1,957
Growth stage	858	1,128	1,384	614	781	4,765
Total investor dependent	2,090	1,568	1,563	634	867	6,722
Cash flow dependent - SLBO	9	36	230	501	1,190	1,966
Innovation C&I	425	343	1,007	1,066	5,776	8,617
Private bank	7,757	1,153	936	274	358	10,478
CRE	733	533	739	328	250	2,583
Premium wine	208	293	355	122	181	1,159
Other C&I	298	98	274	224	130	1,024
Other	96	69	176	91	—	432
Total Loans (1)	$ 12,818	$ 5,836	$ 8,769	$ 6,365	$ 40,462	$ 74,250

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(1) Included in total loans at amortized cost is approximately $23 million in PPP loans. The PPP loans consist of loans across all of our classes of financing receivables.

At December 31, 2022, loans equal to or greater than $20 million to any single client (individually or in the aggregate) totaled $46.8 billion, or 63% of our total loan portfolio. These loans represented 863 clients, and of these loans, none were on nonaccrual status as of December 31, 2022.

The following table provides a summary of loans by size and class of financing receivable. The breakout below is based on total client balances (individually or in the aggregate) as of December 31, 2021:

	December 31, 2021					
(Dollars in millions)	Less than Five Million	Five to Ten Million	Ten to Twenty Million	Twenty to Thirty Million	Thirty Million or More	Total
Global fund banking	$ 996	$ 1,494	$ 2,905	$ 3,163	$ 29,405	$ 37,963
Investor dependent:						
Early stage	1,392	219	124	—	—	1,735
Growth stage	855	1,068	1,122	374	551	3,970
Total investor dependent	2,247	1,287	1,246	374	551	5,705
Cash flow dependent - SLBO	7	31	287	508	965	1,798
Innovation C&I	462	432	920	912	4,018	6,744
Private bank	6,674	950	735	217	167	8,743
CRE	823	652	869	246	80	2,670
Premium wine	215	267	269	124	120	995
Other C&I	444	169	262	217	249	1,341
Other	93	123	101	—	—	317
Total loans (1)	$ 11,961	$ 5,405	$ 7,594	$ 5,761	$ 35,555	$ 66,276

(1) Included in total loans at amortized cost is approximately $331 million in PPP loans. The PPP loans consist of loans across all of our classes of financing receivables.

At December 31, 2021, loans equal to or greater than $20 million to any single client (individually or in the aggregate) totaled $41.3 billion, or 62 percent of our total loan portfolio. These loans represented 768 clients, and of these loans, $21 million were on nonaccrual status as of December 31, 2021.

State Concentrations

Approximately 27 percent of our outstanding total loan balances as of December 31, 2022, were to borrowers based in California, compared to 30 percent as of December 31, 2021. Additionally, borrowers in Massachusetts increased to 13 percent as of December 31, 2022, compared to 12 percent as of December 31, 2021. Borrowers in New York represented approximately 12 percent of total loan balances as of December 31, 2022, compared to 10 percent as of December 31, 2021. Other than California, Massachusetts and New York, there are no additional states with loan balances greater than or equal to 10 percent of total loans as of December 31, 2022.

See generally "Risk Factors—Credit Risks" set forth under Part I, Item 1A of this report.

As of December 31, 2022, 92 percent, or $68.4 billion, of our outstanding total loans were variable-rate loans that adjust at a prescribed measurement date upon a change in our prime-lending rate or other variable indices, compared to 91 percent, or $60.4 billion, as of December 31, 2021. The following table sets forth the remaining contractual maturity distribution of our total loans by class of financing receivables as of December 31, 2022, for fixed and variable rate loans:

	Remaining Contractual Maturity of Loans				
(Dollars in millions)	**One Year or Less**	**After One Year and Through Five Years**	**After Five Years Through Fifteen Years**	**After Fifteen Years**	**Total**
Fixed-rate loans:					
Global fund banking	$ 563	$ 8	$ —	$ —	$ 571
Investor dependent:					
Early stage	5	34	—	—	39
Growth stage	1	73	38	—	112
Total investor dependent	6	107	38	—	151
Cash flow dependent - SLBO	—	12	—	—	12
Innovation C&I	71	120	11	—	202
Private bank	20	64	238	1,934	2,256
CRE	150	551	407	46	1,154
Premium wine	36	158	545	55	794
Other C&I	7	91	116	289	503
Other	58	62	10	96	226
PPP	7	16	—	—	23
Total fixed-rate loans	$ 918	$ 1,189	$ 1,365	$ 2,420	$ 5,892
Variable-rate loans:					
Global fund banking	$ 38,343	$ 2,211	$ 144	$ —	$ 40,698
Investor dependent:					
Early stage	274	1,575	62	—	1,911
Growth stage	505	3,953	193	—	4,651
Total investor dependent	779	5,528	255	—	6,562
Cash flow dependent - SLBO	292	1,591	71	—	1,954
Innovation C&I	1,732	6,309	366	—	8,407
Private bank	359	263	813	6,786	8,221
CRE	124	840	451	14	1,429
Premium wine	156	134	74	—	364
Other C&I	175	91	72	178	516
Other	35	95	18	59	207
Total variable-rate loans	$ 41,995	$ 17,062	$ 2,264	$ 7,037	$ 68,358
Total loans	$ 42,913	$ 18,251	$ 3,629	$ 9,457	$ 74,250

Upon maturity, loans satisfying our credit quality standards may be eligible for renewal. Such renewals are subject to the normal underwriting and credit administration practices associated with new loans. We do not grant loans with unconditional extension terms.

Paycheck Protection Program

We accepted applications under the PPP administered by the SBA under the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"), as amended by the Economic Aid to Hard-Hit Small Businesses, Nonprofits, and Venues Act (the "Economic Aid Act"), and originated loans to qualified small businesses through June 30, 2021. As of December 31, 2022, we have outstanding PPP loans in the amount of $23 million compared to $331 million as of December 31, 2021. This funded amount reflects repayments received as of such date.

Loan Deferral Programs

In April 2020, we implemented three loan payment deferral programs targeted to assist borrowers who were the most impacted by the COVID-19 pandemic. As of December 31, 2022, no loan modifications remained active under these programs. As of December 31, 2021, loans modified under these programs had outstanding balances of $10 million, which consisted entirely of venture-backed borrowers who lengthened their existing interest-only payment period under the deferral program.

Loan Administration

The Risk Committee of our Board of Directors oversees our credit risks and strategies, as well as our key credit policies and lending practices. Subject to the oversight of the Risk Committee, lending authority is delegated to our Chief Credit Officer and other senior members of our lending management based on certain size and underwriting criteria.

Credit Quality Indicators

As of December 31, 2022, and December 31, 2021, our total criticized loans and nonaccrual loans collectively represented three percent of our total loans. Criticized loans and nonaccrual loans to early-stage investor dependent clients represented 13 percent of our total criticized loans and nonaccrual loan balances as of December 31, 2022, and December 31, 2021. Loans to early-stage clients represent a relatively small percentage of our overall portfolio at three percent and two percent of total loans as of December 31, 2022, and December 31, 2021, respectively. It is common for an early-stage client's remaining liquidity to fall temporarily below the threshold for a pass-rated credit during its capital-raising period for a new round of funding. Based on our experience, for most early-stage clients, this situation typically lasts one to two quarters and generally resolves itself with a subsequent round of venture funding, though there are exceptions, from time to time. As a result, we expect that each of our early-stage clients will reside in our criticized portfolio during a portion of their life cycle.

As of December 31, 2022, we have identified the following risks to credit quality: (i) pressured public and private markets, (ii) larger Growth Stage, Innovation C&I and Cash Flow Dependent — SLBO loan sizes and (iii) exposure from CRE loans.

(i) Pressured public and private markets - Prolonged market volatility may impact the performance of the Technology and Life Science/Healthcare portfolio. This risk particularly applies to Investor Dependent loans, where repayment is dependent on the borrower's ability to fundraise or exit.

(ii) Larger Growth Stage, Innovation C&I and Cash Flow Dependent — SLBO loan sizes - The growth of our balance sheet and our clients continues to increase the number of large loans, which may introduce greater volatility in credit metrics.

(iii) Exposure from CRE loans - We acquired these loans from Boston Private in 2021. The exposure is mitigated by the well-margined collateral on these loans and our limited overall exposure, with CRE making up only three percent of total loans at December 31, 2022.

Additionally, we have identified the following factors that could have a positive impact on credit quality: (i) a high quality loan mix and (ii) stronger client balance sheets than in previous cycles.

(i) High quality loan mix - As described above, our Investor Dependent - Early Stage class, which historically has been the most vulnerable loan class with the most losses, is only three percent of total loans. Furthermore, 70 percent of total loans are now in our Global Fund Banking and Private Bank classes, which have low credit loss experience.

(ii) Stronger client balance sheets than in previous cycles - Record venture capital investment throughout 2020-2021 has generally extended clients' runways, bolstered by clients taking steps to reduce cash burn. These factors place our clients in stronger positions than in previous economic downturns.

We continue to monitor the current environment to evaluate the impact of the above on our portfolio's credit quality and to identify the emergence of additional factors.

ACL for Loans and for Unfunded Credit Commitments

The following table summarizes the allocation of the ACL for loans for our portfolio segments:

	December 31,			
	2022		2021	
(Dollars in millions)	**ACL Amount**	**Percent of Total Loans (1)**	**ACL Amount**	**Percent of Total Loans (1)**
Global fund banking	$ 110	55.6 %	$ 67	57.3 %
Investor dependent	273	9.0	146	8.3
Cash flow dependent and innovation C&I	155	14.2	118	12.8
Private bank	50	14.1	33	13.2
CRE	25	3.5	36	4.0
Other C&I	13	1.4	14	1.9
Premium wine and other	10	2.2	8	2.0
PPP	—	—	—	0.5
Total	$ 636	100.0 %	$ 422	100.0 %

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(1) Represents loan balances as a percentage of total loans at each respective year-end.

To determine the ACL for performing loans as of December 31, 2022, and December 31, 2021, we utilized three scenarios, on a weighted basis, from Moody's Analytics' December 2022 and December 2021 forecasts, respectively, in our expected lifetime loss estimate. The table below summarizes the key assumptions within each period's baseline forecasts, as well as the weightings we applied to the three economic forecast scenarios in our model.

	December 31, 2022	**December 31, 2021**
Key economic factors from Moody's baseline forecasts		
Gross domestic product projected growth rate	0.9 %	6.8 %
Projected unemployment rate	3.7 %	4.3 %
Housing price index projected growth rate	(2.2)%	5.9 %
Weightings applied to different Moody's economic scenarios		
Upward outlook (Moody's S1)	30 %	30 %
Baseline (Moody's B)	40	40
Downward outlook (Moody's S3)	30	30
Total	100 %	100 %

Gross Loan Charge-Offs

Gross loan charge-offs were $103 million for the year ended December 31, 2022, for which $82 million was not previously specifically reserved. Gross loan charge-offs not previously specifically reserved for were primarily driven by our Investor Dependent loan portfolio, reflective of the pressured markets our Technology and Life Science/Healthcare clients are operating in. Despite the challenging conditions, charge-offs remained low overall.

Gross loan charge-offs were $138 million for the year ended December 31, 2021, of which $113 million was not specifically reserved for in prior quarters. Gross loan charge-offs not previously reserved for were primarily driven by $80 million related to a single instance of fraudulent activity on one loan disclosed in previous filings. The remaining $33 million of gross loan charge-offs not previously specifically reserved for came primarily from our Investor Dependent and Innovation C&I loan portfolios.

Net Charge-offs to Average Loans Outstanding

The following table summarizes our net charge-offs to average outstanding loans by classes of financing receivables for the years ended December 31, 2022, and December 31, 2021:

	December 31, 2022			December 31, 2021		
(Dollars in millions)	Net Charge-offs (Net Recoveries)	Average Loan Balance	Percentage	Net Charge-offs (Net Recoveries)	Average Loan Balance	Percentage
Global fund banking (1)	$ (7)	$ 39,417	(0.02)%	$ 80	$ 30,358	0.26 %
Investor dependent:						
Early stage	36	1,999	1.80	28	2,131	1.31
Growth stage	23	4,050	0.57	—	3,546	—
Total investor dependent	59	6,049	0.98	28	5,677	0.49
Cash flow dependent- SLBO	4	1,823	0.22	5	1,685	0.30
Innovation C&I	14	8,065	0.17	(3)	6,600	(0.05)
Private bank	(2)	9,665	(0.02)	3	6,704	0.04
CRE	—	2,626	—	—	1,366	—
Premium wine	(1)	1,056	(0.09)	—	1,047	—
Other C&I	3	1,157	0.26	—	628	—
Other	1	352	0.28	1	155	0.65
PPP	—	79	—	—	327	—
Total	$ 71	$ 70,289	0.10 %	$ 114	$ 54,547	0.21 %

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(1) Global fund banking net charge-offs for the year ended December 31, 2021, includes the impact of an $80 million charge-off related to fraudulent activity on one loan as disclosed in previous filings.

Nonperforming Assets

Nonperforming assets consist of loans on nonaccrual status, loans past due 90 days or more still accruing interest and OREO and other foreclosed assets. We measure all loans placed on nonaccrual status for impairment based on the fair value of the underlying collateral or the net present value of the expected cash flows. The table below sets forth certain data and ratios between nonperforming loans, nonperforming assets and the ACL for loans and unfunded credit commitments:

	December 31,	
(Dollars in millions)	2022	2021
Nonperforming, past due and restructured loans:		
Nonaccrual loans	$ 132	$ 84
Loans past due 90 days or more still accruing interest	5	7
Total nonperforming loans	137	91
OREO and other foreclosed assets	—	1
Total nonperforming assets	$ 137	$ 92
Performing TDRs	$ 33	$ 40
Nonaccrual loans as a percentage of total loans	0.18 %	0.13 %
Nonperforming loans as a percentage of total loans	0.18	0.14
Nonperforming assets as a percentage of total assets	0.06	0.04
ACL for loans (1)	$ 636	$ 422
As a percentage of total loans	0.86 %	0.64 %
As a percentage of total nonperforming loans	464.23	463.74
ACL for nonaccrual loans (1)	$ 51	$ 35
As a percentage of total loans	0.07 %	0.05 %
As a percentage of total nonperforming loans	37.23	38.46
ACL for total performing loans (1)	$ 585	$ 387
As a percentage of total loans	0.79 %	0.58 %
As a percentage of total performing loans	0.79	0.58
Total loans	$ 74,250	$ 66,276
Total performing loans	74,113	66,185
ACL for unfunded credit commitments (2)	303	171
As a percentage of total unfunded credit commitments	0.48 %	0.39 %
Total unfunded credit commitments (3)	$ 62,541	$ 44,016

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(1) The "ACL for loans" at December 31, 2021, includes an initial allowance of $66 million related to acquired Boston Private loans, of which $2 million was related to nonaccrual loans. See “Provision for Credit Losses” for a detailed discussion of the changes to the allowance.

(2) The “ACL for unfunded credit commitments” is included as a component of other liabilities and any provision is included in the “provision for credit losses” in the statement of income. At December 31, 2021, this includes an initial allowance of $2 million related to acquired Boston Private commitments. See “Provision for Credit Losses” for a detailed discussion of the changes to the allowance.

(3) Includes unfunded loan commitments and letters of credit.

Our ACL for loans as a percentage of total loans increased 22 bps to 0.86 percent at December 31, 2022, compared to 0.64 percent at December 31, 2021. The 22 bps increase was primarily due to the increase in our performing loans reserve rate, which was a result of the deterioration of current and forecasted economic conditions, as well as continued loan growth. These same factors also contributed to an increase in our nonaccrual reserve rate. For a detailed discussion of changes in the current period's reserve, see "Provision for Credit Losses."

Nonaccrual Loans

The following table presents a summary of changes in nonaccrual loans for the years ended December 31, 2022 and 2021:

	Year ended December 31,	
(Dollars in millions)	2022	2021
Balance, beginning of period	$ 84	$ 104
Additions	186	98
Paydowns and other reductions	(94)	(91)
Charge-offs	(44)	(27)
Balance, end of period	$ 132	$ 84
Average nonaccrual loans	$ 93	$ 105

Our nonaccrual loan balance increased $48 million to $132 million as of December 31, 2022, compared to $84 million as of December 31, 2021. The increase was due primarily to new nonaccrual loans, reflective of current economic conditions, offset by paydowns and charge-offs. We specifically reserved $51 million and $35 million for our nonaccrual loans as of December 31, 2022, and December 31, 2021, respectively.

Accrued Interest Receivable and Other Assets

A summary of accrued interest receivable and other assets at December 31, 2022 and December 31, 2021 is as follows:

	December 31,		
(Dollars in millions)	2022	2021	% Change
Derivative assets (1)	$ 552	$ 428	29.0 %
AIR	722	470	53.6
FHLB and FRB stock	720	107	NM
Deferred tax assets	179	24	NM
Accounts receivable	66	54	22.2
Other assets	843	708	19.1
Total AIR and other assets	$ 3,082	$ 1,791	72.1

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(1) See “Derivatives” section below.

Accrued interest receivable

The increase of $252 million in AIR was driven by the purchase of treasury notes as well as the increase in the period-end balance of our loans at December 31, 2022, as compared to December 31, 2021.

FHLB and Federal Reserve Bank stock

The increase of $613 million in FHLB and Federal Reserve Bank stock is primarily due to purchases of additional shares as required by the Federal Reserve.

Net deferred tax assets

Net deferred tax assets increased $155 million primarily due to an increase in unrealized losses on AFS securities attributable to an increase in market rates.

Other Assets

Other assets include various asset amounts for other operational transactions. The increase of $135 million was primarily due to higher tax receivables.

Derivatives

Derivative instruments are recorded as a component of other assets and other liabilities on the balance sheet. The following table provides a summary of derivative assets and liabilities at December 31, 2022, and December 31, 2021:

	December 31,		
(Dollars in millions)	**2022**	**2021**	**% Change**
Assets:			
Equity warrant assets	$ 383	$ 277	38.3 %
Contingent conversion rights	12	—	—
Foreign exchange contracts	340	171	98.8
Total return swaps	40	—	—
Client interest rate derivatives	128	99	29.3
Interest rate swaps	—	18	(100.0)
Total gross derivative assets	903	565	59.8
Less: netting adjustments (1)	(351)	(137)	156.2
Total derivative assets	$ 552	$ 428	29.0
Liabilities:			
Foreign exchange contracts	$ 361	$ 137	163.5
Client interest rate derivatives	195	101	93.1
Total gross derivative liabilities	556	238	133.6
Less: netting adjustments (1)	(223)	(120)	85.8
Total derivative liabilities	$ 333	$ 118	182.2

(1) During the third quarter of 2022, we changed our accounting policy to report the fair values of our derivative assets and liabilities subject to ISDA master netting arrangements on a net basis where a right of setoff exists. The net derivative fair values have been further adjusted for cash collateral received/pledged. The change in accounting policy was applied retrospectively, and prior periods have been revised to conform with current period presentation.

Equity Warrant Assets

In connection with negotiating credit facilities and certain other services, we often obtain rights to acquire stock in the form of equity warrant assets in primarily private, venture-backed companies in the technology and life science/healthcare industries. At December 31, 2022, we held warrants in 3,234 companies, compared to 2,831 companies at December 31, 2021. Warrants in 65 companies each had fair values greater than $1 million and collectively represented $199 million, or 51.9 percent, of the fair value of the total warrant portfolio at December 31, 2022. The change in fair value of equity warrant assets is recorded in "Gains on equity warrant assets, net" in noninterest income, a component of consolidated net income. The following table provides a summary of transactions and valuation changes for the years ended December 31, 2022, and December 31, 2021:

	Year ended December 31,	
(Dollars in millions)	**2022**	**2021**
Balance, beginning of period	$ 277	$ 203
New equity warrant assets	31	25
Non-cash changes in fair value, net	107	116
Exercised equity warrant assets	(28)	(65)
Terminated equity warrant assets	(4)	(2)
Balance, end of period	$ 383	$ 277

Foreign Exchange Contracts

We enter into foreign exchange contracts with clients involved in foreign activities, either as the purchaser or seller, depending upon the clients' needs. For each contract entered into with our clients, we enter into an opposite way contract with a correspondent bank, which mitigates the risk of fluctuations in currency rates. We also enter into forward contracts with correspondent banks to economically reduce our foreign exchange exposure related to certain foreign currency denominated instruments. Net gains and losses on the revaluation of foreign currency denominated instruments are recorded in the line item "Other" as part of noninterest income, a component of consolidated net income. To manage our exposure to variability on the foreign currency translation of net investments in non-U.S. subsidiaries, we enter into certain foreign exchange contracts to hedge against the foreign currency risk of a net investment in foreign operations. We designate these foreign exchange contracts as net investment hedges that qualify for hedge accounting under ASC 815. We have not experienced nonperformance by any of our counterparties and therefore have not incurred any related losses. Further, we anticipate performance by all counterparties. For additional information on our foreign exchange contracts, see Note 16—"Derivative Financial Instruments" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report.

Client Interest Rate Derivatives

We sell interest rate contracts to clients who wish to mitigate their interest rate exposure. We economically reduce the interest rate risk from this business by entering into opposite way contracts with correspondent banks. For additional information on our client interest rate derivatives, refer to Note 16—"Derivative Financial Instruments" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report.

Interest Rate Swaps

To manage interest rate risk on our AFS securities portfolio, we enter into pay-fixed, receive-floating interest rate swap contracts to hedge against exposure to changes in the fair value of the securities resulting from changes in interest rates. We designate these interest rate swap contracts as fair value hedges that qualify for hedge accounting under ASC 815 and record them in other assets and other liabilities. Refer to Note 16—"Derivative Financial Instruments" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report for additional information.

Deposits

The following table presents the composition of our deposits as of December 31, 2022, and December 31, 2021:

	December 31,	
(Dollars in millions)	**2022**	**2021**
Noninterest-bearing demand	$ 80,753	$ 125,851
Interest-bearing checking and savings accounts	32,916	5,106
Money market	52,032	54,842
Money market deposits in foreign offices	51	696
Sweep deposits in foreign offices	664	969
Time	6,693	1,739
Total deposits	$ 173,109	$ 189,203

The decrease in deposits of $16.1 billion compared to December 31, 2021, was primarily driven by slowdown in public and private fundraising and exits as well as increased client cash burn, partially offset by flexible liquidity solutions that shifted off-balance sheet client funds on-balance sheet, all of which reduced the proportion of noninterest-bearing deposits. Noninterest-bearing demand deposits to total deposits decreased by 20 percentage points to 47 percent as of December 31, 2022, compared to December 31, 2021. Approximately seven percent and nine percent of our total deposits as of December 31, 2022, and December 31, 2021, respectively, were from our clients in Asia.

As of December 31, 2022, 53 percent of our total deposits were interest-bearing deposits, compared to 33 percent as of December 31, 2021.

Uninsured Deposits in U.S. Offices

As of December 31, 2022, and December 31, 2021, the amount of estimated uninsured deposits in U.S. offices that exceed the FDIC insurance limit were $151.5 billion and $166.0 billion, respectively. As of December 31, 2022, and December 31, 2021, foreign deposits of $13.9 billion and $16.1 billion, respectively, were not subject to any U.S. federal or state deposit

insurance regime. The amounts disclosed above are derived using the same methodologies and assumptions used for regulatory reporting requirements.

Time Deposits

The maturity profile of our time deposits as of December 31, 2022, is as follows:

	December 31, 2022				
(Dollars in millions)	**Three months or less**	**More than three months to six months**	**More than six months to twelve months**	**More than twelve months**	**Total**
U.S. time deposits in excess of the FDIC insured amount	$ 902	$ 283	$ 127	$ 4	$ 1,316
Non-U.S. time deposits in excess of insured amount	4,525	244	336	—	5,105
Remaining time deposits	159	56	50	7	272
Total time deposits	$ 5,586	$ 583	$ 513	$ 11	$ 6,693

Short-Term Borrowings

The following table summarizes our short-term borrowings that mature in one year or less:

	December 31,			
	2022		2021	
(Dollars in millions)	**Amount**	**Rate**	**Amount**	**Rate**
Securities sold under agreement to repurchase	$ 525	3.48 %	$ 61	0.05 %
Other short-term borrowings (1)	40	4.43	10	0.07
Short-term FHLB advances	13,000	4.33	—	—
Total short-term borrowings	$ 13,565	4.39	$ 71	0.05

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(1) During the third quarter of 2022, we changed our accounting policy to report the fair values of our derivative assets and liabilities subject to ISDA master netting arrangements on a net basis where a right of setoff exists. The net derivative fair values have been further adjusted for cash collateral received/pledged. The change in accounting policy was applied retrospectively, and prior periods have been revised to conform with current period presentation.

We had $13.6 billion in short-term borrowings at December 31, 2022, compared to $71 million at December 31, 2021. For more information on our short-term debt, see Note 15—"Short-Term Borrowings and Long-Term Debt" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report.

Average daily balances for our short-term borrowings in 2022, 2021 and 2020 were as follows:

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**

Average daily balances:			
Short-term FHLB advances	$ 4,069	$ —	$ 296
Federal Funds purchased (1)	198	1	13
Securities sold under agreements to repurchase	3,085	41	65
Other short-term borrowings (2)	46	32	27
Total average short-term borrowings	$ 7,398	$ 74	$ 401
Weighted average interest rate during the year:			
Short-term FHLB advances	3.72 %	— %	0.62 %
Federal Funds purchased	0.97	0.13	0.73
Securities sold under agreements to repurchase	1.86	0.05	1.74
Other short-term borrowings	3.73	0.30	0.28

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(1) As part of our liquidity risk management practices, we periodically test availability and access to overnight borrowings in the Federal Funds market. These balances represent short-term borrowings.
(2) Represents cash collateral received from certain counterparties in excess of net derivative receivables balances.

Long-Term Debt

The following table represents outstanding long-term debt at December 31, 2022, and December 31, 2021:

		December 31,	
(Dollars in millions)	Principal value at December 31, 2022	2022	2021
3.50% Senior Notes due 2025	$ 350	$ 349	$ 349
3.125% Senior Notes due 2030	500	496	496
1.800% Senior Notes due 2031	500	495	494
2.100% Senior Notes due 2028	500	497	496
1.800% Senior Notes due 2026	650	646	645
4.345% Senior Fixed Rate/Floating Rate Notes due 2028	350	348	—
4.570% Senior Fixed Rate/Floating Rate Notes due 2033	450	448	—
Junior subordinated debentures	100	91	90
FHLB advances	2,000	2,000	—
Total long-term debt	$ 5,400	$ 5,370	$ 2,570

The increase in our long-term debt was due to issuances of FHLB advances and our 4.345% Senior Fixed Rate/Floating Rate Notes due 2028 and 4.570% Senior Fixed Rate/Floating Rate Notes due 2033. For more information on our long-term debt outstanding as of December 31, 2022, refer to Note 15—"Short-Term Borrowings and Long-Term Debt" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report.

Other Liabilities

A summary of other liabilities at December 31, 2022, and December 31, 2021 is as follows:

	December 31,		
(Dollars in millions)	2022	2021	% Change
Accrued compensation	$ 848	$ 896	(5.4)
Allowance for unfunded credit commitments	303	171	77.2
Derivative liabilities (1)	333	118	182.2
Deferred tax liabilities	26	—	—
Other liabilities	1,531	1,282	19.4
Total other liabilities	$ 3,041	$ 2,467	23.3

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(1) See "Derivatives" section above.

Allowance for Unfunded Credit Commitments

Allowance for unfunded credit commitments includes an allowance for both our unfunded loan commitments and our letters of credit. The increase of $132 million was primarily attributable to projected economic conditions and higher unfunded credit commitment balances.

Other Liabilities

Other liabilities include various accrued liability amounts for other operational transactions. The increase of $249 million was driven primarily by an increase in investments payable related to investments in qualified affordable housing projects.

NCI

NCI totaled $291 million and $373 million at December 31, 2022, and December 31, 2021, respectively. The decrease was due to net loss attributable to NCI of $63 million and net capital distributions of $19 million for the year ended December 31, 2022. For more information, refer to Note 2—"Summary of Significant Accounting Policies" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report.

Capital Resources

We maintain an adequate capital base to support anticipated asset growth, operating needs, credit and other business risks and to provide for SVB Financial and the Bank to be in compliance with applicable regulatory capital guidelines, including the joint agency rules implementing the "Basel III" capital rules (the "Capital Rules"). Our primary sources of new capital include retained earnings and proceeds from the sale and issuance of our capital stock or other securities. Under the oversight of the Finance Committee of our Board of Directors, management engages in regular capital planning processes in an effort to optimize the use of the capital available to us and to appropriately plan for our future capital needs. The capital plan considers capital needs for the foreseeable future and allocates capital to both existing and future business activities. Expected future use or activities for which capital may be set aside include balance sheet growth and associated relative increases in market or credit exposure, investment activity, potential product and business expansions, acquisitions and strategic or infrastructure investments. In addition, we conduct capital stress tests as part of our annual capital planning process. The capital stress tests allow us to assess the impact of adverse changes in the economy and interest rates on our capital adequacy position.

SVBFG Stockholders' Equity

SVBFG stockholders' equity totaled $16.0 billion as of December 31, 2022, a decrease of $232 million, or 1.4 percent, compared to $16.2 billion as of December 31, 2021. The decrease was driven primarily by losses recorded on AFS securities included in AOCI, reflective of an increase in market rates. The decrease was partially offset by an increase in retained earnings driven by net income for the year ended December 31, 2022.

Funds generated through retained earnings are a significant source of capital and liquidity and are expected to continue to be so in the future.

Capital Ratios

Both SVB Financial and the Bank are subject to various regulatory capital requirements administered by state and federal banking agencies. The following table represents the capital components for SVB Financial and the Bank used in calculating CET1, Tier 1 capital and total capital as of December 31, 2022, and December 31, 2021. See Note 23—"Regulatory Matters" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report for further information.

	SVB Financial		Bank	
	December 31, 2022	December 31, 2021	December 31, 2022	December 31, 2021
Common stock plus related surplus, net of treasury stock	$ 5,318	$ 5,157	$ 10,092	$ 9,265
Retained earnings	8,951	7,442	7,267	5,537
AOCI	(1,911)	(9)	(1,903)	(7)
CET1 capital before adjustments and deductions	12,358	12,590	15,456	14,795
Less: Goodwill (net of associated deferred tax liabilities)	365	369	199	200
Intangibles (net of associated deferred tax liabilities)	113	133	61	70
Deferred tax assets that arise from net operating losses and tax credit carryforwards, net of any related valuation allowances and net of deferred tax liabilities	123	—	136	—
AOCI opt-out election related adjustments	(1,880)	(18)	(1,875)	(17)
Add: CECL transition provision	60	80	60	80
Total adjustments and deductions from CET1 capital	(1,339)	404	(1,539)	173
CET1 Capital	13,697	12,186	16,995	14,622
Add: Qualifying Preferred stock	3,646	3,646	—	—
Minority interest	291	373	—	—
Less: Additional tier 1 capital deductions	130	—	—	—
Additional tier 1 capital	3,807	4,019	—	—
Tier 1 Capital	17,504	16,205	16,995	14,622
Allowance for credit losses included in Tier 2 capital	946	600	946	600
CECL transition provision for allowance for credit losses	(70)	(93)	(70)	(93)
Tier 2 Capital	876	507	876	507
Total capital	$ 18,380	$ 16,712	$ 17,871	$ 15,129
Total risk-weighted assets	$ 113,628	$ 100,812	$ 111,353	$ 98,214
Average quarterly total assets (1)	$ 215,740	$ 204,380	$ 213,436	$ 201,880

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(1) Average quarterly total assets as defined by the Federal Reserve less: (i) goodwill net of associated deferred tax liabilities, (ii) disallowed intangible assets net of associated deferred tax liabilities and deferred tax assets and (iii) other deductions from assets for leverage capital purposes.

Regulatory capital ratios for SVB Financial and the Bank exceeded minimum federal regulatory guidelines under the Capital Rules as well as for a "well capitalized" bank holding company and insured depository institution, respectively, as of December 31, 2022, and December 31, 2021. Capital ratios for SVB Financial and the Bank, compared to the minimum capital ratios, are set forth below:

	December 31, 2022	December 31, 2021	Required Minimum	Required Minimum + Capital Conservation Buffer (1)	Well Capitalized Minimum
SVB Financial:					
CET1 risk-based capital ratio (2) (3)	12.05 %	12.09 %	4.5 %	7.0 %	N/A
Tier 1 risk-based capital ratio (3)	15.40	16.08	6.0	8.5	6.0
Total risk-based capital ratio (3)	16.18	16.58	8.0	10.5	10.0
Tier 1 leverage ratio (2) (3)	8.11	7.93	4.0	N/A	N/A
Tangible common equity to tangible assets ratio (4) (5)	5.62	5.73	N/A	N/A	N/A
Tangible common equity to risk-weighted assets ratio (4) (5)	10.46	11.98	N/A	N/A	N/A
Bank:					
CET1 risk-based capital ratio (3)	15.26 %	14.89 %	4.5 %	7.0 %	6.5 %
Tier 1 risk-based capital ratio (3)	15.26	14.89	6.0	8.5	8.0
Total risk-based capital ratio (3)	16.05	15.40	8.0	10.5	10.0
Tier 1 leverage ratio (3)	7.96	7.24	4.0	N/A	5.0
Tangible common equity to tangible assets ratio (4) (5)	7.28	7.10	N/A	N/A	N/A
Tangible common equity to risk-weighted assets ratio (4) (5)	13.65	15.06	N/A	N/A	N/A

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(1) Percentages represent the minimum capital ratios plus, as applicable, the fully phased-in 2.5% CET1 capital conservation buffer under the Capital Rules.
(2) "Well Capitalized Minimum" CET1 risk-based capital and Tier 1 leverage ratios are not formally defined under applicable banking regulations for bank holding companies.
(3) Capital ratios include regulatory capital phase-in of the ACL under the 2021 CECL Transition Rule.
(4) See below for a reconciliation of non-GAAP tangible common equity to tangible assets and tangible common equity to risk-weighted assets.
(5) The Federal Reserve has not issued any minimum guidelines for the tangible common equity to tangible assets ratio or the tangible common equity to risk-weighted assets ratio, however, we believe these ratios provide meaningful supplemental information regarding our capital levels and are therefore provided above.

As of December 31, 2022, the CET1 risk-based, Tier 1 risk-based and total risk-based capital ratios decreased from December 31, 2021, reflective of the growth in risk-weighted assets outpacing the growth in regulatory capital. The increase in risk-weighted assets was driven by an increase in cash and other assets and loan growth partially offset by a decrease in our investment security portfolio. The increase in regulatory capital was driven primarily by net income and an increase in the allowance for credit losses, partially offset by Tier 1 capital deductions and preferred stock dividends.

The increase in our Tier 1 leverage ratio for SVB Financial is reflective of the growth in our regulatory capital outpacing our growth in average assets. The increase in average assets for SVB Financial was driven by an increase in cash and loan growth partially offset by a decrease in our investment security portfolio.

Non-GAAP Tangible Common Equity to Tangible Assets and Non-GAAP Tangible Common Equity to Risk-weighted Assets

The tangible common equity, or tangible book value, to tangible assets ratio and the tangible common equity to risk-weighted assets ratios are not required by GAAP or applicable bank regulatory requirements. However, we believe these ratios provide meaningful supplemental information regarding our capital levels. Our management uses, and believes that investors benefit from referring to, these ratios in evaluating the adequacy of the Company's capital levels; however, these financial measures should be considered in addition to, not as a substitute for or preferable to, comparable financial measures prepared in accordance with GAAP. These ratios are calculated by dividing total SVBFG stockholders' equity, by total period-end assets and risk-weighted assets, after reducing both amounts by preferred stock and acquired intangibles, if any. The manner in which this ratio is calculated varies among companies. Accordingly, our ratio is not necessarily comparable to similar measures of other companies. The following table provides a reconciliation of non-GAAP financial measures with financial measures defined by GAAP:

Non-GAAP tangible common equity and tangible assets (Dollars in millions, except ratios)	SVB Financial				
	December 31, 2022	December 31, 2021	December 31, 2020	December 31, 2019	December 31, 2018
GAAP SVBFG stockholders' equity	$ 16,004	$ 16,236	$ 8,220	$ 6,470	$ 5,116
Less: preferred stock	3,646	3,646	340	340	—
Less: intangible assets	511	535	204	187	—
Plus: net deferred taxes on intangible assets	33	26	—	—	—
Tangible common equity	$ 11,880	$ 12,081	$ 7,676	$ 5,943	$ 5,116
GAAP total assets	$ 211,793	$ 211,308	$ 115,351	$ 70,907	$ 56,864
Less: intangible assets	511	535	204	187	—
Plus: net deferred taxes on intangible assets	33	26	—	—	—
Tangible assets	$ 211,315	$ 210,799	$ 115,147	$ 70,720	$ 56,864
Risk-weighted assets	$ 113,628	$ 100,812	$ 64,681	$ 46,577	$ 38,528
Non-GAAP tangible common equity to tangible assets	5.62 %	5.73 %	6.67 %	8.40 %	9.00 %
Non-GAAP tangible common equity to risk-weighted assets	10.46	11.98	11.87	12.76	13.28

Non-GAAP tangible common equity and tangible assets (Dollars in millions, except ratios)	Bank				
	December 31, 2022	December 31, 2021	December 31, 2020	December 31, 2019	December 31, 2018
Tangible common equity	$ 15,196	$ 14,795	$ 7,069	$ 5,034	$ 4,555
Tangible assets	$ 208,777	$ 208,406	$ 113,143	$ 69,446	$ 55,983
Risk-weighted assets	$ 111,353	$ 98,214	$ 61,023	$ 44,502	$ 37,104
Non-GAAP tangible common equity to tangible assets	7.28 %	7.10 %	6.25 %	7.25 %	8.14 %
Non-GAAP tangible common equity to risk-weighted assets	13.65	15.06	11.58	11.31	12.28

Off-Balance Sheet Arrangements and Aggregate Contractual Obligations

In the normal course of business, we use financial instruments with off-balance sheet risk to meet the financing needs of our customers. These financial instruments include commitments to extend credit, commercial and standby letters of credit and commitments to invest in venture capital and private equity fund investments. These instruments involve, to varying degrees, elements of credit risk. Credit risk is defined as the possibility of sustaining a loss because other parties to the financial instrument fail to perform in accordance with the terms of the contract. The actual liquidity needs and the credit risk that we have experienced have historically been lower than the contractual amount of these commitments because a significant portion of these commitments expire without being drawn upon. For details of our commitments to extend credit and commercial and standby letters of credit, please refer to the discussion of our off-balance sheet arrangements in Note 21—"Off-Balance Sheet Arrangements, Guarantees and Other Commitments" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report.

The following table summarizes our unfunded commercial commitments as of December 31, 2022:

(Dollars in millions)	Amount of Commitments Expiring per Period				
	Total	Less than 1 year	1-3 years	4-5 years	After 5 years
Commercial commitments:					
Loan commitments available for funding	$ 58,891	$ 45,028	$ 9,420	$ 3,640	$ 803
Standby letters of credit	3,567	3,443	95	24	5
Commercial letters of credit	83	66	17	—	—
Total unfunded credit commitments	$ 62,541	$ 48,537	$ 9,532	$ 3,664	$ 808

The following table summarizes our contractual obligations to make future payments as of December 31, 2022:

(Dollars in millions)	Payments Due By Period				
	Total	Less than 1 year	1-3 years	4-5 years	After 5 years
SVBFG contractual obligations:					
Deposits (1) (2)	$ 173,109	$ 173,098	$ 11	$ —	$ —
Borrowings (2)	18,935	15,565	995	845	1,530
Non-cancelable operating leases	459	85	140	88	146
Commitments to qualified affordable housing projects	754	294	404	17	39
Total obligations attributable to SVBFG	$ 193,257	$ 189,042	$ 1,550	$ 950	$ 1,715

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(1) Includes time deposits and deposits with no defined maturity, such as noninterest-bearing demand, interest-bearing checking, savings, money market and sweep accounts.
(2) Amounts exclude contractual interest.

Excluded from the tables above are unfunded commitment obligations of $164 million to our managed funds of funds and other fund investments for which neither the payment, timing, nor eventual obligation is certain. Subject to applicable regulatory requirements, including the Volcker Rule (see "Business - Supervision and Regulation" under Part I, Item 1 of this report), we make commitments to invest in venture capital and private equity funds, which in turn make investments generally in, or in some cases make loans to, privately-held companies. Commitments to invest in these funds are generally made for a 10-year period from the inception of the fund. Although the limited partnership agreements governing these investments typically do not restrict the general partners from calling 100% of committed capital in one year, it is customary for these funds to generally call most of the capital commitments over 5 to 7 years; however in certain cases, the funds may not call 100% of committed capital over the life of the fund. The actual timing of future cash requirements to fund these commitments is generally dependent upon the investment cycle, overall market conditions and the nature and type of industry in which the privately held companies operate. Additionally, our consolidated managed funds of funds have $3 million of remaining unfunded commitments to venture capital and private equity funds. See Note 9—"Investment Securities" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report for further disclosure related to non-marketable and other equity securities. Additional discussion of our off-balance sheet arrangements for these fund investments is included in Note 21—"Off-Balance Sheet Arrangements, Guarantees and Other Commitments" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report.

Liquidity

The objective of liquidity management is to ensure that funds are available in a timely manner to meet our financial obligations, including, the availability of funds for both anticipated and unanticipated funding uses as necessary, paying creditors, meeting depositors' needs, accommodating loan demand and growth, funding investments, repurchasing securities and other operating or capital needs, without incurring undue cost or risk, or causing a disruption to normal operating conditions.

We regularly assess the amount and likelihood of projected funding requirements through a range of business-as-usual and potential stress scenarios based on a review of factors such as historical deposit volatility and funding patterns, present and forecasted market and economic conditions, individual client funding needs and existing and planned business activities.

ALCO provides oversight to the liquidity management process and recommends policy guidelines for the approval of the Finance Committee and Risk Committee of our Board of Directors, and courses of action to address our actual and projected liquidity needs. Additionally, we routinely conduct liquidity stress testing as part of our liquidity management practices.

Our client deposits base is, and historically has been, our primary source of liquidity funding. Our deposit levels and cost of deposits may fluctuate from time to time due to a variety of factors, including market conditions, prevailing interest rates, changes in client deposit behaviors, availability of insurance protection and our offering of deposit products. We may also offer more investment alternatives for our off-balance sheet products which may impact deposit levels. At December 31, 2022, our period-end total deposit balances decreased to $173.1 billion, compared to $189.2 billion at December 31, 2021.

We maintain a liquidity risk management and monitoring process designed to ensure appropriate liquidity to meet expected and contingent funding needs under both normal and stress environments, subject to the regular supervisory review process. Our liquidity requirements can also be met through the use of our portfolio of liquid assets. Our definition of liquid assets includes cash and cash equivalents in excess of the minimum levels necessary to carry out normal business operations, short-term investment securities maturing within one year, AFS and HTM securities eligible and available for financing or pledging purposes with a maturity in excess of one year and anticipated near-term cash flows from investments.

We have certain facilities in place to enable us to access short- and long-term borrowings on a secured and unsecured basis. Our secured facilities include collateral pledged to the FHLB of San Francisco and the discount window at the FRB (using both fixed income securities and loans as collateral). Our unsecured facility consists of our uncommitted federal funds lines. As of December 31, 2022, collateral pledged to the FHLB of San Francisco was comprised primarily of fixed income investment securities and loans and had a carrying value of $44.9 billion, of which $25.9 billion was available to support additional borrowings. As of December 31, 2022, collateral pledged to the discount window at the FRB was comprised of fixed income investment securities and had a carrying value of $5.3 billion, all of which was unused and available to support additional borrowings. Our total unused and available borrowing capacity for our uncommitted federal funds lines totaled $3.2 billion as of December 31, 2022. Our total unused and available secured borrowing capacity under our master repurchase agreements with various financial institutions totaled $35.0 billion as of December 31, 2022.

As a banking organization, our liquidity is subject to supervision by our banking regulators. Because we are a Category IV organization with less than $250 billion in average total consolidated assets, less than $50 billion in average weighted short-term wholesale funding and less than $75 billion in cross-jurisdictional activity, we currently are not subject to the Federal Reserve's LCR or NSFR requirements, either on a full or reduced basis. It is possible that, as a result of further growth, we may exceed one or more of those thresholds and therefore become subject to LCR and NSFR requirements or other heightened liquidity requirements in the future, which would require us to maintain high-quality liquid assets in accordance with specific quantitative requirements and increase the use of long-term debt as a funding source. In addition, if we were to exceed $75 billion in cross-jurisdictional activity, as a Category II organization, we could no longer opt out of excluding AOCI in calculating regulatory capital ratios and would become subject to the advance approaches framework as well as more stringent liquidity reporting requirements.

On a stand-alone basis, SVB Financial's primary liquidity channels include dividends from the Bank, its portfolio of liquid assets and its ability to raise debt and capital. The ability of the Bank to pay dividends is subject to certain regulations described in "Business—Supervision and Regulation—Restriction on Dividends" under Part I, Item 1 of this report.

Consolidated Summary of Cash Flows

Below is a summary of our average cash position and statement of cash flows for 2022 and 2021, respectively: (For further details, see our Consolidated Statements of Cash Flows under "Consolidated Financial Statements and Supplementary Data" under Part II, Item 8 of this report.)

	Year ended December 31,			
(Dollars in millions)		**2022**		**2021**
Average cash and cash equivalents	$	17,109	$	23,041
Percentage of total average assets		7.9 %		13.9 %
Net cash provided by operating activities	$	2,864	$	1,868
Net cash used for investing activities		(3,638)		(90,336)
Net cash (used for) provided by financing activities		(9)		85,432
Net (decrease) increase in cash and cash equivalents	$	(783)	$	(3,036)

Average cash and cash equivalents decreased to $17.1 billion in 2022, compared to $23.0 billion for 2021. Average deposits increased $37.8 billion which enabled us to grow our average loan portfolio by $15.7 billion in 2022.

December 31, 2022

Cash provided by operating activities of $2.9 billion in 2022 included net income before NCI of $1.6 billion and $2.0 billion of adjustments to reconcile net income to net cash, partially offset by $749 million from changes in other assets and liabilities.

Cash used for investing activities of $3.6 billion in 2022 was driven by $17.7 billion in purchases of fixed income investment securities and a $7.9 billion increase in loan balances, partially offset by $22.4 billion in proceeds from sales, maturities and principal pay downs from our fixed income investment securities portfolio.

Cash used for financing activities of $9 million in 2022 was reflective of a $16.1 billion decrease in deposits, offset partially by a $13.5 billion increase in short-term borrowings and $2.8 billion increase from the issuance of long-term debt.

Cash and cash equivalents at December 31, 2022 were $13.8 billion, compared to $14.6 billion at December 31, 2021.

December 31, 2021

Cash provided by operating activities of $1.9 billion in 2021 included net income before NCI of $2.1 billion and $49 million from changes from adjustments to reconcile net income to net cash, partially offset by $254 million from changes in other assets and liabilities.

Cash used for investing activities of $90.3 billion in 2021 was driven by $97.7 billion in purchases of fixed income investment securities and a $13.7 billion increase in loan balances, partially offset by $19.8 billion in proceeds from sales, maturities and principal pay downs from our fixed income investment securities portfolio and $1.1 billion in proceeds from the acquisition of Boston Private.

Cash provided by financing activities of $85.4 billion in 2021 was reflective of a $78.2 billion increase in deposits, $5.7 billion in capital raised by our preferred and common stock issuances and $1.6 billion increase from the issuance of long-term debt.

Cash and cash equivalents at December 31, 2021, were $14.6 billion, compared to $17.6 billion at December 31, 2020.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk Management

Market risk is defined as the risk of adverse fluctuations in the market value of financial instruments due to changes in market interest rates. Interest rate risk is our primary market risk and can result from timing and volume differences in the repricing of our rate-sensitive assets and liabilities, widening or tightening of credit spreads, changes in the general level of market and benchmark interest rates and the shape of the yield curve. Additionally, changes in interest rates can influence the rate of principal prepayments on mortgage securities, which affects the rate of amortization of purchase premiums and discounts. Other market risks include foreign currency exchange risk and equity price risk (including the effect of competition on product pricing). These risks and related impacts are important market considerations but are inherently difficult to assess through simulation results. Consequently, simulations used to analyze the sensitivity of net interest income (NII) to changes in interest rates will differ from actual results due to differences in the timing and frequency of rate resets, the magnitude of changes in market rates, the impact of competition, fluctuating business conditions and the impact of strategies taken by management to mitigate these risks.

Interest rate risk is managed by our ALCO. ALCO reviews the sensitivity of the market valuation on earning assets and funding liabilities and modeled 12-month projections of net NII from changes in interest rates, structural changes in investment and funding portfolios, loan and deposit activity and market conditions. Relevant metrics and guidelines, which are approved by the Finance Committee of our Board of Directors and are included in our Interest Rate Risk Policy, are monitored on an ongoing basis.

Interest rate risk is managed primarily through strategies involving our fixed income securities portfolio, available funding channels and capital market activities. In addition, our policies permit the use of off-balance sheet derivatives, such as interest rate swaps, to assist with managing interest rate risk.

We utilize a simulation model to perform sensitivity analysis on the economic value of equity (EVE) and NII under a variety of interest rate scenarios, balance sheet forecasts and business strategies. The simulation model provides a dynamic assessment of interest rate sensitivity which is embedded within our balance sheet. Rate sensitivity measures the potential variability in economic value and NII relating solely to changes in market interest rates over time. We review our interest rate risk position and sensitivity to market interest rates regularly.

Model Simulation and Sensitivity Analysis

Both EVE and NII measures rely upon the use of models to simulate cash flow behavior for loans and deposits. These models were developed internally and are based on historical balance and rate observations. As part of our ongoing governance structure, each of these models and assumptions are periodically reviewed and recalibrated as needed to ensure that they are representative of our understanding of existing behaviors.

A specific application of our simulation model involves measurement of the impact of changes in market interest rates on the EVE. EVE is defined as the market value of assets, less the market value of liabilities. Another application of the simulation model measures the impact of changes in market interest rates on NII assuming a static balance sheet, in both size and composition, as of the period-end reporting date. In the NII simulation, the level of market interest rates and the size and composition of the balance sheet are held constant over the simulation horizon. Simulated cash flows during the scenario horizon are assumed to be replaced as they occur, which maintains the balance sheet at its current size and composition. Investment portfolio cash flow is based on a combination of third-party prepayment models and internally managed prepayment vectors depending on security type. Based on a historical deposit study of our clients, we make certain deposit balance decay rate assumptions on demand deposits and interest-bearing deposits, which are replenished to hold the level and mix of funding liabilities constant. These assumptions may change in future periods based on changes in client behavior and at management's discretion.

Changes in market interest rates that affect NII are principally short-term interest rates and include the following benchmark indexes: (i) the National Prime Rate, (ii) SOFR rates, (iii) 1-month and 3-month LIBOR and (iv) the Federal Funds target rate. Changes in these short-term rates impact interest earned on our variable rate loans and balances held as cash and cash equivalents. Yield and spread assumptions on cash and investment balances reflect current market rates and the shape of the yield curve. Yield and spread assumptions on loans reflect recent market impacts on product pricing. A majority of our loans are indexed to Prime, LIBOR and alternate indices such as SOFR. Although we ceased offering LIBOR-based loans as of December 31, 2021, our simulation results will reflect changes in LIBOR rates until publication rates are fully phased out. For the interest rate scenarios, the simulation model incorporates embedded rate floors on loans, where present, which prevents model benchmark rates from moving below zero percent in the down rate scenarios. The embedded rate floors are also a factor in the up-rate scenarios to the extent a simulated increase in rates is needed before floored rates are cleared. In the upward parallel simulated rate shock scenarios, interest income on assets that are tied to variable rate indexes, primarily our variable rate loans, are expected to benefit our base 12-month NII projections. The opposite is true for downward rate shock scenarios.

Repricing of interest-bearing deposits impacts estimated interest expense for a relative change in underlying interest rates. Simulated changes in deposit pricing relative to changes in market rates, commonly referred to as deposit beta, generally follow overall changes in short-term interest rates, although actual changes may vary in terms of timing and magnitude. The 12-month NII simulations include repricing assumptions on our interest-bearing deposit products of approximately 70 percent as of December 31, 2022 which is higher than the 60 percent assumed as of December 31, 2021. This assumption is applied based on changing client needs, behavior and our overall funding mix. Actual changes in our deposit pricing strategies may differ from our current model assumptions and may have an impact on our actual sensitivity overall.

The following table presents our NII sensitivity exposure related to an instantaneous and sustained parallel shift in market interest rates of 100 and 200 bps at December 31, 2022, and December 31, 2021.

Change in interest rates (bps)	**Estimated Percent Increase / (Decrease) in NII**
December 31, 2022:	
+200	3.5 %
+100	1.8
-100	(1.8)
-200	(5.8)

December 31, 2021:	
+200	22.9 %
+100	10.9
-100	(6.4)
-200	(8.6)

12-Month Net Interest Income Simulation

NII sensitivity is measured as the percentage change in projected 12-month NII earned in +/-100 and +/-200 basis point interest rate shock scenarios compared to a base scenario where balances and interest rates are held constant over the forecast horizon. The reduction in our NII asset sensitivity for each parallel rate shock scenario above is primarily driven by the shift in our funding mix towards interest-bearing deposits and short-term borrowings, increase in deposit beta assumption relative to December 31, 2021, termination of our pay fixed swaps portfolio and the extension of our fixed income portfolio as a result of higher rates, partially offset by growth in variable rate loans.

ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors SVB Financial Group:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of SVB Financial Group and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, stockholders' 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 Company'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 Company 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 Company 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.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for the presentation of derivatives subject to master netting arrangements during 2022 in accordance with ASC 815-10-45-5, Derivatives and Hedging.

Basis for Opinions

The Company'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 Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the 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.

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.

Allowance for credit losses for loans and unfunded loan commitments for certain portfolio segments evaluated on a collective basis

As discussed in Notes 2 and 10 of the consolidated financial statements, the Company's allowance for credit losses for loans (ALL) and unfunded credit commitments (AUCC) were $636 million and $303 million as of December 31, 2022, respectively. The allowance principally relates to the Company's loans and unfunded loan commitments evaluated on a collective basis (the collective ALL and the collective AULC, respectively). The collective ALL and the collective AULC include the measure of expected credit losses on a collective (pooled) basis for those loans and unfunded loan commitments that share similar risk characteristics. The Company estimated the collective ALL using a current expected credit losses methodology based on relevant information about historical experience, the current macroeconomic environment, and reasonable and supportable economic forecasts that affect the collectability of the loan balances. The quantitative expected credit losses are the product of multiplying the Company's estimates of probability of default (PD), loss given default (LGD), and individual loan level exposure at default (EAD) on an undiscounted basis. The Company derives the PD, LGD, and EAD from internal historical default and loss experience adjusted for multiple probability-weighted economic forecast scenarios of macroeconomic assumptions over a reasonable and supportable forecast period of three years. After the reasonable and supportable forecast period, the Company reverts to historical averages using a method that will gradually trend towards the mean historical loss over the remaining contractual lives, adjusted for prepayments. The Company also applies certain qualitative adjustments to the results of its quantitative model for asset-specific risk characteristics, and current conditions and reasonable and supportable forecasts based on its expectation of the risks that may lead to future loan loss experience different from its historical loan loss experience. These adjustments are based on qualitative factors not reflected in the quantitative model but are expected to impact the estimate of credit losses. In order to capture the unique risks of the loan portfolio within the PD, LGD, EAD model, the Company segments the portfolio into pools and by credit risk rating. The Company estimated the collective AULC using a similar methodology as the collective ALL adjusted by the probability of an unfunded loan commitment being funded. Certain qualitative adjustments to historical loss information are also applied to the collective AULC.

We identified the assessment of the December 31, 2022 collective ALL and collective AULC for the Global Funds Banking, Investor Dependent, Cash Flow Dependent, Innovation C&I, Premium Wine, and legacy Private Bank portfolio segments 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 due to measurement uncertainty. Specifically, the assessment encompassed the evaluation of the methodology, including the methods and model used to estimate (1) the PD, LGD, and EAD and their significant assumptions and inputs, and (2) certain qualitative adjustments. Significant assumptions and inputs include the economic forecast scenarios of macroeconomic assumptions and their weightings, the historical observation period, portfolio segmentation, and credit risk ratings. The assessment also included an evaluation of the conceptual soundness and performance of the PD, LGD, and EAD model. Auditor judgment was required to evaluate the sufficiency of audit evidence obtained

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 Company's measurement of the December 31, 2022 collective ALL and collective AULC estimates, including controls over the:

- periodic review and monitoring of the collective ALL and the collective AULC methodology
- identification and determination of significant assumptions used in the PD, LGD, and EAD model
- evaluation of the qualitative adjustments, including significant assumptions used in the measurement of the qualitative adjustments
- determination of credit risk ratings
- analysis of the collective ALL and collective AULC results, trends, and ratios.

We evaluated the Company’s process to develop the December 31, 2022 collective ALL and collective AULC estimates by testing certain sources of data, qualitative factors and assumptions that the Company used, and considered the relevance and reliability of such data, qualitative factors, and assumptions. In addition, we involved credit risk professionals with specialized skills and knowledge who assisted in:

- evaluating the Company’s collective ALL and collective AULC methodology and key assumptions for compliance with U.S. generally accepted accounting principles
- assessing the conceptual soundness and performance of the PD, LGD, and EAD model by inspecting the model documentation to determine whether the model is suitable for the intended use
- evaluating the methodology used to develop the qualitative factors and the effect of those factors on the collective ALL and the collective AULC compared with relevant credit risk factors and consistency with credit trends associated with the Company’s portfolio
- evaluating the historical observation period, focusing on the relevance of the full economic cycle relative to the Company’s current portfolio
- evaluating the approach to incorporate macroeconomic forecast assumptions in the PD, LGD, EAD model with respect to the Company’s business environment and the loan products used across the industry
- evaluating model validation findings and assessing their possible impact, if any
- determining whether the loan portfolio is segmented by similar risk characteristics by comparing to the Company’s business and environment and relevant industry practices
- testing individual credit risk ratings for a selection of loan and unfunded loan commitment borrower relationships by evaluating the financial performance of the borrower, sources of repayment, and any relevant guarantees or underlying collateral, as applicable.

We also assessed the sufficiency of the audit evidence obtained related to the December 31, 2022 collective ALL and collective AULC estimates by evaluating the:

- cumulative results of the audit procedures
- qualitative aspects of the Company’s accounting practices
- potential bias in the accounting estimates.

/s/ KPMG LLP (185)

We have served as the Company's auditor since 1994.
San Francisco, California
February 24, 2023

SVB FINANCIAL GROUP AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31,	
(Dollars in millions, except par value and share data)	2022	2021
Assets		
Cash and cash equivalents	$ 13,803	$ 14,586
Available-for-sale securities, at fair value (cost of $28,602 and $27,370, respectively, including $530 and $61 pledged as collateral, respectively)	26,069	27,221
Held-to-maturity securities, at amortized cost and net of allowance for credit losses of $6 and $7 (fair value of $76,169 and $97,227, respectively)	91,321	98,195
Non-marketable and other equity securities	2,664	2,543
Total investment securities	120,054	127,959
Loans, amortized cost	74,250	66,276
Allowance for credit losses: loans	(636)	(422)
Net loans	73,614	65,854
Premises and equipment, net of accumulated depreciation and amortization	394	270
Goodwill	375	375
Other intangible assets, net	136	160
Lease right-of-use assets	335	313
Accrued interest receivable and other assets	3,082	1,791
Total assets	$ 211,793	$ 211,308
Liabilities and total equity		
Liabilities:		
Noninterest-bearing demand deposits	$ 80,753	$ 125,851
Interest-bearing deposits	92,356	63,352
Total deposits	173,109	189,203
Short-term borrowings	13,565	71
Lease liabilities	413	388
Other liabilities	3,041	2,467
Long-term debt	5,370	2,570
Total liabilities	195,498	194,699
Commitments and contingencies (Note 21 and Note 26)		
SVBFG stockholders’ equity:		
Preferred stock, $0.001 par value, 20,000,000 shares authorized; 383,500 and 383,500 shares issued and outstanding, respectively	3,646	3,646
Common stock, $0.001 par value, 150,000,000 shares authorized; 59,171,883 and 58,748,469 shares issued and outstanding, respectively	—	—
Additional paid-in capital	5,318	5,157
Retained earnings	8,951	7,442
Accumulated other comprehensive income (loss)	(1,911)	(9)
Total SVBFG stockholders’ equity	16,004	16,236
Noncontrolling interests	291	373
Total equity	16,295	16,609
Total liabilities and total equity	$ 211,793	$ 211,308

See accompanying notes to the consolidated financial statements.

SVB FINANCIAL GROUP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME

	Year ended December 31,		
(Dollars in millions, except per share amounts)	**2022**	**2021**	**2020**
Interest income:			
Loans	$ 3,208	$ 1,966	$ 1,520
Investment securities:			
Taxable	2,113	1,199	635
Non-taxable	140	106	61
Federal funds sold, securities purchased under agreements to resell and other short-term investment securities	212	18	26
Total interest income	5,673	3,289	2,242
Interest expense:			
Deposits	862	62	60
Borrowings	326	48	25
Total interest expense	1,188	110	85
Net interest income	4,485	3,179	2,157
Provision for credit losses	420	123	220
Net interest income after provision for credit losses	4,065	3,056	1,937
Noninterest income:			
Gains (losses) on investment securities, net	(285)	761	421
Gains on equity warrant assets, net	148	560	237
Client investment fees	386	75	132
Wealth management and trust fees	83	44	—
Foreign exchange fees	285	262	179
Credit card fees	150	131	98
Deposit service charges	126	112	90
Lending related fees	94	76	57
Letters of credit and standby letters of credit fees	57	51	47
Investment banking revenue	420	459	414
Commissions	98	79	67
Other	166	128	98
Total noninterest income	1,728	2,738	1,840
Noninterest expense:			
Compensation and benefits	2,293	2,015	1,318
Professional services	480	392	247
Premises and equipment	269	178	127
Net occupancy	101	83	101
Business development and travel	85	24	24
FDIC and state assessments	75	48	28
Merger-related charges	50	129	—
Other	268	201	190
Total noninterest expense	3,621	3,070	2,035
Income before income tax expense	2,172	2,724	1,742
Income tax expense	563	651	448
Net income before noncontrolling interests and dividends	1,609	2,073	1,294
Net loss (income) attributable to noncontrolling interests	63	(240)	(86)
Preferred stock dividends	(163)	(63)	(17)
Net income available to common stockholders	$ 1,509	$ 1,770	$ 1,191
Earnings per common share—basic	$ 25.58	$ 31.74	$ 23.05
Earnings per common share—diluted	25.35	31.25	22.87

See accompanying notes to the consolidated financial statements.

SVB FINANCIAL GROUP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**
Net income before noncontrolling interests	$ 1,609	$ 2,073	$ 1,294
Other comprehensive income (loss), net of tax:			
Change in foreign currency cumulative translation gains and losses:			
Foreign currency translation gains (losses), net of hedges	(54)	(2)	16
Related tax benefit (expense)	15	—	(5)
Change in unrealized gains and losses on AFS securities:			
Unrealized holding gains (losses)	(2,503)	(644)	606
Related tax benefit (expense)	686	179	(168)
Reclassification adjustment for (gains) losses included in net income	(21)	(31)	(61)
Related tax expense (benefit)	6	9	17
Cumulative-effect adjustment for unrealized losses on securities transferred from AFS to HTM	—	(132)	—
Related tax benefit	—	37	—
Amortization of unrealized holding (gains) losses on securities transferred from AFS to HTM	13	(1)	2
Related tax expense (benefit)	(4)	—	(1)
Change in unrealized gains and losses on cash flow hedges:			
Unrealized gains (losses)	—	—	232
Related tax (expense) benefit	—	—	(64)
Reclassification adjustment for gains included in net income	(56)	(63)	(50)
Related tax expense	16	17	14
Other comprehensive income (loss), net of tax	(1,902)	(632)	538
Comprehensive income (loss)	(293)	1,441	1,832
Comprehensive (income) loss attributable to noncontrolling interests	63	(240)	(86)
Comprehensive income (loss) attributable to SVBFG	$ (230)	$ 1,201	$ 1,746

See accompanying notes to the consolidated financial statements.

SVB FINANCIAL GROUP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS’ EQUITY

		Common Stock							
(Dollars in millions, except share data)	**Preferred Stock**	**Shares**	**Amount**	**Additional Paid-in Capital**	**Retained Earnings**	**Accumulated Other Comprehensive Income (Loss)**	**Total SVBFG Stockholders' Equity**	**Noncontrolling Interests**	**Total Equity**
Balance at December 31, 2019	**$ 340**	**51,655,607**	**$ —**	**$ 1,470**	**$ 4,576**	**$ 85**	**$ 6,471**	**$ 151**	**$ 6,622**
Cumulative adjustment for the adoption of premium amortization on purchased callable debt securities (ASU 2017-08) (1)	—	—	—	—	(35)	—	(35)	—	(35)
Common stock issued under share-based and employee benefit plans, net	—	477,079	—	31	—	—	31	—	31
Net income	—	—	—	—	1,208	—	1,208	86	1,294
Capital calls and distributions, net	—	—	—	—	—	—	—	(24)	(24)
Other comprehensive income (loss), net of tax	—	—	—	—	—	538	538	—	538
Share-based compensation, net	—	—	—	84	—	—	84	—	84
Common stock repurchases	—	(244,223)	—	—	(60)	—	(60)	—	(60)
Dividends on preferred stock	$ —	—			$ (17)		$ (17)		(17)
Balance at December 31, 2020	**$ 340**	**$ 51,888,463**	**$ —**	**$ 1,585**	**$ 5,672**	**$ 623**	**$ 8,220**	**$ 213**	**$ 8,433**
Common stock issued under share-based and employee benefit plans, net	—	445,025	—	11	—	—	11	—	11
Issuance of Common Stock	—	4,527,000		2,363	—	—	2,363	—	2,363
Issuance of common stock for the acquisition of Boston Private	—	1,887,981	—	1,060	—	—	1,060	—	1,060
Issuance of Preferred Stock	3,306	—	—	—	—	—	3306	—	3,306
Net income	—	—	—	—	1,833	—	1,833	240	2,073
Capital calls and distributions, net	—	—	—	—	—	—	—	(80)	(80)
Other comprehensive income (loss), net of tax	—	—	—	—	—	(632)	(632)	—	(632)
Share-based compensation, net	—	—	—	138	—	—	138	—	138
Dividends on preferred stock	—	—	—	—	(63)	—	(63)	—	(63)
Balance at December 31, 2021	**$ 3,646**	**58,748,469**	**$ —**	**$ 5,157**	**$ 7,442**	**$ (9)**	**$ 16,236**	**$ 373**	**$ 16,609**
Common stock issued under share-based and employee benefit plans, net	—	423,414	—	(22)	—	—	(22)	—	(22)
Net income	—	—	—	—	1,672	—	1,672	(63)	1,609
Capital calls and distributions, net	—	—	—	—	—	—	—	(19)	(19)
Other comprehensive income (loss), net of tax	—	—	—	—	—	(1,902)	(1,902)	—	(1,902)
Share-based compensation, net	—	—	—	183	—	—	183	—	183
Dividends on preferred stock	—	—	—	—	(163)	—	(163)	—	(163)
Balance at December 31, 2022	**$ 3,646**	**59,171,883**	**$ —**	**$ 5,318**	**$ 8,951**	**$ (1,911)**	**$ 16,004**	**$ 291**	**$ 16,295**

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(1) See Note 2- "Summary of Significant Accounting Policies" for additional details.

See accompanying notes to the consolidated financial statements.

SVB FINANCIAL GROUP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**
Cash flows from operating activities:			
Net income before noncontrolling interests	$ 1,609	$ 2,073	$ 1,294
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for credit losses	420	123	220
Changes in fair values of equity warrant assets, net of proceeds from exercises	(60)	(26)	(2)
Changes in fair values of derivatives, net	193	52	(82)
(Gains) losses on investment securities, net	285	(761)	(421)
Distributions of earnings from non-marketable and other equity securities	57	201	86
Depreciation and amortization	222	151	101
Amortization of premiums and discounts on investment securities, net	388	451	75
Amortization of share-based compensation	183	136	84
Amortization of deferred loan fees	(259)	(269)	(174)
Deferred income tax (benefit) expense	591	(8)	7
Excess tax benefit from exercise of stock options and vesting of restricted shares	(18)	(40)	(6)
Losses from the write-off of premises and equipment and right-of-use assets	2	39	30
Changes in other assets and liabilities:			
Accrued interest receivable and payable, net	(45)	(185)	(26)
Accounts receivable and payable, net	6	17	19
Income tax receivable and payable, net	(179)	(122)	98
Accrued compensation	(48)	332	191
Proceeds from termination of interest rate swaps	—	—	228
Other, net	(483)	(296)	(310)
Net cash provided by operating activities	2,864	1,868	1,412
Cash flows from investing activities:			
Purchases of AFS securities	(12,724)	(12,147)	(23,208)
Proceeds from sales of AFS securities	9,495	1,591	2,654
Proceeds from maturities and paydowns of AFS securities	1,452	4,768	4,184
Purchases of HTM securities	(4,961)	(85,519)	(6,778)
Proceeds from maturities and paydowns of HTM securities	11,469	13,428	4,036
Purchases of non-marketable and other equity securities	(381)	(365)	(201)
Proceeds from sales and distributions of capital of non-marketable and other equity securities	106	666	148
Net increase in loans	(7,879)	(13,726)	(11,927)
Purchases of premises and equipment	(215)	(113)	(87)
Business acquisitions, net	—	1,081	(27)
Net cash used for investing activities	(3,638)	(90,336)	(31,206)
Cash flows from financing activities:			
Net increase (decrease) in deposits	(16,094)	78,238	40,224
Net increase (decrease) in short-term borrowings	13,494	21	6
Proceeds from issuance of long-term debt	2,795	1,636	495
(Distributions to noncontrolling interests), net of contributions from noncontrolling interests	(19)	(80)	(23)
Net proceeds from the issuance of preferred stock	—	3,306	—
Payment of preferred stock dividend	(163)	(63)	(17)
Common stock repurchase	—	—	(60)
Proceeds from issuance of common stock, net	(22)	2,374	31
Net cash provided (used for) by financing activities	(9)	85,432	40,656
Net increase (decrease) in cash and cash equivalents	(783)	(3,036)	10,862
Cash and cash equivalents at beginning of period	14,586	17,622	6,760
Cash and cash equivalents at end of period	**$ 13,803**	**$ 14,586**	**$ 17,622**
Supplemental disclosures:			
Cash paid during the period for:			
Interest	$ 981	$ 93	$ 84
Income taxes, net of refunds	96	739	299
Noncash items during the period:			
Changes in unrealized gains and losses on AFS securities, net of tax	$ (1,832)	$ (488)	$ 394
Distributions of stock from investments	2	72	12
Transfers from AFS securities to HTM	—	8,953	—

See accompanying notes to the consolidated financial statements.

SVB FINANCIAL GROUP AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Business

SVB Financial Group is a diversified financial services company, as well as a bank holding company and a financial holding company. SVB Financial was incorporated in the state of Delaware in March 1999. Through our various subsidiaries and divisions, we offer a diverse set of banking and financial products and services to support our clients of all sizes and stages throughout their life cycles. In these notes to our consolidated financial statements, when we refer to "SVB","SVB Financial Group," "SVBFG", the "Company," "we," "our," "us" or use similar words, we mean SVB Financial Group and all of its subsidiaries collectively, including Silicon Valley Bank (the "Bank"), unless the context requires otherwise. When we refer to "SVB Financial" or the "Parent" we are referring only to the parent company entity, SVB Financial Group (not including subsidiaries).

We offer commercial banking products and services through our principal subsidiary, the Bank, which is a California-chartered bank founded in 1983 and a member of the Federal Reserve System. Through its subsidiaries, the Bank also offers asset management, private wealth management and other investment services. In addition, through SVB Financial's other subsidiaries and divisions, we offer investment banking and non-banking products and services, such as funds management and M&A advisory services. We primarily focus on serving corporate clients in the following industries: technology, life science/healthcare, private equity/venture capital and premium wine. Our corporate clients range widely in terms of size and stage of maturity. Additionally, we focus on cultivating strong relationships with firms within the venture capital and private equity community worldwide, many of which are also our clients and may invest in our corporate clients.

Headquartered in Santa Clara, California, we operate in centers of innovation in the United States and around the world.

For reporting purposes, SVB Financial Group has four operating segments for which we report financial information in this report: Silicon Valley Bank, SVB Private, SVB Capital and SVB Securities.

2. Summary of Significant Accounting Policies

Use of Estimates and Assumptions

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Estimates may change as new information is obtained. Among the more significant estimates are those that relate to: 1) ACL for loans and for unfunded credit commitments, 2) valuation of non-marketable and other equity securities, 3) valuation of equity warrant assets, 4) goodwill, intangible assets and other purchase accounting related adjustments and 5) income taxes.

Principles of Consolidation and Presentation

Our consolidated financial statements include the accounts of SVB Financial Group and consolidated entities. We consolidate entities in which we have a controlling financial interest. Before we determine whether we have a controlling financial interest, we must evaluate whether the entity is a voting interest entity or a variable interest entity ("VIE").

VIEs are entities where investors lack sufficient equity at risk for the entity to finance its activities without additional subordinated financial support and, as a group, lack one of the following characteristics: (i) the power to direct the activities that most significantly impact the entity's economic performance, (ii) the obligation to absorb the expected losses of the entity or (iii) the right to receive the expected returns of the entity.

We hold a controlling financial interest in a VIE when we are the primary beneficiary. A primary beneficiary is the party that has both: (i) the power to direct the activities that most significantly impact the VIE's economic performance and (ii) the obligation to absorb losses or receive benefits of a VIE that could potentially be significant to a VIE. Generally, the parties that make management and investment decisions, or parties that can unilaterally remove such decision-makers are deemed to have the power to direct the activities of a VIE. When assessing whether we have the obligation to absorb losses or the right to receive benefits from the VIE, we consider all of our economic interests in the VIE, including any fees and other compensation received for providing investment and management services if that compensation is not customary and commensurate with the services provided.

Voting interest entities are entities that (i) have sufficient equity to finance their activities and (ii) provide the equity investors power to make significant decisions relating to the entity's operations. For such entities, we have a controlling financial interest if we hold a majority of voting rights.

All significant intercompany accounts and transactions with consolidated entities have been eliminated.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash on hand, cash balances due from banks, interest-earning deposits, Federal Reserve deposits, federal funds sold, securities purchased under agreements to resell and other short-term investment securities. For the consolidated statements of cash flows, we consider cash equivalents to be investments that are readily convertible to known amounts of cash, so near to their maturity that they present an insignificant risk of change in fair value due to changes in market interest rates, and purchased in conjunction with our cash management activities.

Investment Securities

Available-for-Sale Securities and the Allowance for Credit Losses on Available-for-Sale Securities

Our AFS securities portfolio is a fixed income investment portfolio that is managed to earn an appropriate portfolio yield over the long-term while maintaining sufficient liquidity and credit diversification and meeting our asset and liability management objectives. The accretion of discounts and amortization of premiums over the contractual terms of the underlying securities are included in interest income. We apply the retrospective method of amortization for discounts and premiums to prepayable AFS securities. When the estimated remaining lives of securities changes, the related premium or discount is adjusted with a corresponding cumulative charge or benefit to interest income. Sales of AFS securities use the specific identification method.

AFS securities are recorded at fair value. Unrealized gains and losses on AFS securities, net of applicable taxes, are reported in AOCI, a separate component of SVBFG's stockholders' equity. Impairment losses on AFS securities are recognized through earnings when we intend to sell an AFS security, or it is more likely than not that we will be required to sell the security before recovery of its amortized cost. Additionally, we evaluate whether a credit loss exists for securities that we intend to hold. We consider all factors in determining whether a credit loss exists, including the period over which the debt security is expected to recover. A credit impairment is recognized through a valuation allowance against the security with an offset through earnings. The allowance is limited to the amount that its fair value is less than the amortized cost basis.

Held-to-Maturity Securities and the Allowance for Credit Losses on Held-to-Maturity Securities

Debt securities purchased with the positive intent and ability to hold to its maturity are classified as HTM securities and are recorded at amortized cost, net of any ACL. We apply the retrospective method of amortization for discounts and premiums to prepayable HTM securities. When the estimated remaining lives of securities changes, the related premium or discount is adjusted with a corresponding cumulative charge or benefit to interest income.

We measure ECL on HTM securities on a collective basis by major security type and standard credit rating. Certain securities in our HTM securities portfolio are either explicitly or implicitly guaranteed by the U.S. government, are highly rated by major rating agencies and have a long history of no credit losses. With respect to these securities, we consider the risk of credit loss to be zero and, therefore, we do not record an ECL.

The estimate of ECL on our HTM securities that are not guaranteed by the U.S. government considers historical credit loss information and severity of loss in the event of default and leverages external data adjusted for current conditions. A reasonable and supportable forecast period of one year is applied, with immediate reversion to long-term average historical loss rates when remaining contractual lives of securities exceed one year. We do not estimate ECL on AIR from HTM securities as AIR is reversed or written off when the full collection of the AIR related to a security becomes doubtful. AIR from HTM securities totaled $211 million at December 31, 2022, and $225 million at December 31, 2021, and is excluded from the amortized cost disclosures within our HTM security disclosures in Note 9—"Investment Securities" as it is included and reported separately within "Accrued interest receivable and other assets" in our consolidated balance sheets.

ECL on HTM securities that do not share common risk characteristics with our collective portfolio are individually measured based on net realizable value, or the difference between the discounted value of the expected future cash flows and the recorded amortized cost basis of the security.

Transfers of investment securities into the HTM category from the AFS category are made at fair value at the date of transfer. The net unrealized gains, net of tax, are retained in other comprehensive income, and the carrying value of the HTM securities are amortized over the life of the securities in a manner consistent with the amortization of a premium or discount.

Non-Marketable and Other Equity Securities

Non-marketable and other equity securities include investments in venture capital and private equity funds, SPD-SVB, debt funds, private and public portfolio companies, including public equity securities held as a result of equity warrant assets exercised and investments in qualified affordable housing projects. A majority of these investments are managed through our SVB Capital funds business in funds of funds and direct venture funds. Our accounting for investments in non-marketable and

other equity securities depends on several factors, including the level of ownership, power to control and the legal structure of the subsidiary making the investment. As further described below, we base our accounting for such securities on: (i) fair value accounting, (ii) measurement alternative for other investments without a readily determinable fair value, (iii) equity method accounting and (iv) the proportional amortization method, which is used only for qualified affordable housing projects.

Fair Value Accounting

Our consolidated managed funds qualify as investment companies and therefore report their investments at estimated fair value, with unrealized gains and losses reflected as gains on investment securities, net, a component of noninterest income. The portion of any investment gains or losses attributable to other limited partners is reflected as net income attributable to NCI and adjusts our net income to reflect its percentage ownership. Our consolidated managed funds of funds make investments in venture capital and private equity funds. A summary of our ownership interests in such funds as of December 31, 2022, is presented in the following table:

Limited partnership	**Company Direct and Indirect Ownership in Limited Partnership**
Managed funds of funds	
Strategic Investors Fund, LP	12.6 %
Capital Preferred Return Fund, LP	20.0
Growth Partners, LP	33.0
Redwood Evergreen Fund, LP	100.0

Our direct investments in public portfolio companies are valued based on quoted market prices less a discount if the securities are subject to certain security-specific sale restrictions. Gains or losses resulting from changes in the net asset value are recorded as gains on investment securities, net, a component of noninterest income.

Other Investments without a Readily Determinable Fair Value

Our direct investments in private companies do not have a readily determinable fair value. We measure these investments at cost less impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for identical or similar investments from the same issuer. Such changes are recognized through earnings. We consider a range of factors when adjusting the fair value of these investments, including, but not limited to, the term and nature of the investment, local market conditions, values for comparable securities, current and projected operating performance, financing transactions subsequent to the acquisition of the investment and a discount for certain investments that have certain security-specific sale restrictions or other features that indicate a discount to fair value is warranted.

Our investments in unconsolidated funds where we do not have the ability to exercise significant influence over their operating and financial policies are valued using the net asset value as obtained from the general partners of the fund investments, because the funds do not have a readily determinable fair value. The general partners of these funds prepare their financial statements using guidance consistent with fair value accounting. We account for differences between our measurement date and the date of the fund investment's net asset value by using the most recent available financial information from the investee general partner, for example September 30th, for our December 31st consolidated financial statements. We adjust the value of our investments for any contributions paid, distributions received from the investment and known significant fund transactions or market events about which we are aware through information provided by the fund managers or from publicly available transaction data during the reporting period. Gains or losses resulting from changes in the net asset value are recorded as gains on investment securities, net, a component of noninterest income.

Equity Method

Our equity method non-marketable securities consist of investments in venture capital and private equity funds, privately-held companies, debt funds, renewable energy investments and joint ventures. Our equity method non-marketable securities and related accounting policies are described as follows:

- Equity securities and investments in limited partnerships, such as preferred or common stock in privately-held companies in which we have the ability to exercise significant influence over the investees' operating and financial policies through voting interests, board involvement or other influence are accounted for under the equity method and
- The Bank's joint venture bank in China (SPD-SVB), for which we have 50 percent ownership, is accounted for under the equity method.

We recognize our proportionate share of the results of operations of these equity method investees in our results of operations, based on the most current financial information available from the investee. We may use the hypothetical liquidation at book value method for investments that involve complex equity structures where liquidation rights are not proportional to the underlying percentage ownership interests.

We review our investments accounted for under the equity method at least quarterly for possible other-than-temporary impairment. Our review typically includes an analysis of facts and circumstances for each investment, the expectations of the investment's future cash flows and capital needs, variability of its business and the company's exit strategy.

For our fund investments, we use the net asset value per share as provided by the general partners of the fund investments. We account for differences between our measurement date and the date of the fund investment's net asset value by using the most recent available financial information from the investee general partner, for example September 30th, for our December 31st consolidated financial statements. We adjust the value of our investments for any contributions paid, distributions received from the investment and known significant fund transactions or market events about which we are aware through information provided by the fund managers or from publicly available transaction data during the reporting period.

We reduce our investment value when we consider declines in value to be other-than-temporary and recognize the estimated loss as a loss on investment securities, a component of noninterest income.

Proportional Amortization Method

In order to fulfill our responsibilities under the CRA, we invest as a limited partner in low income housing partnerships that operate qualified affordable housing projects and generate tax benefits, including federal low income housing tax credits, for investors. The partnerships are deemed to be VIEs because they do not have sufficient equity investment at risk and are structured with non-substantive voting rights. We are not the primary beneficiary of the VIEs and do not consolidate them. Our investments in low income housing partnerships are recorded in non-marketable and other equity securities within our investment securities portfolio on the consolidated balance sheet. As a practical expedient, we amortize the investment in proportion to the allocated tax benefits under the proportional amortization method of accounting and present such benefits net of investment amortization in income tax expense.

Loans

Loans are reported at amortized cost which consists of the principal amount outstanding, net of unearned loan fees. Unearned loan fees reflect unamortized deferred loan origination and commitment fees net of unamortized deferred loan origination costs. In addition to cash loan fees, we often obtain equity warrant assets that give us an option to purchase a position in a client company's stock in consideration for providing credit facilities. The grant date fair values of these equity warrant assets are deemed to be loan fees and are deferred as unearned income and recognized as an adjustment of loan yield through loan interest income. The net amount of unearned loan fees is amortized into loan interest income over the contractual terms of the underlying loans and commitments using the constant effective yield method, adjusted for actual loan prepayment experience, or the straight-line method, as applicable.

Allowance for Credit Losses

The allowance for credit losses for loans considers credit risk and is adjusted by a provision for ECL charged to expense and reduced by the charge-off of loan amounts, net of recoveries. Our allowance for credit losses is an estimate of expected losses inherent with the Company's existing loans at the balance sheet date. Determining the appropriateness of the allowance is complex and requires judgment by management about the effect of matters that are inherently uncertain.

Loan Portfolio Segments and Classes of Financing Receivables

The process to estimate the ECL on loans involves procedures to appropriately consider the unique characteristics of our loan portfolio. Our eight portfolio segments are determined by using the following risk dimensions: (i) underwriting methodology, (ii) industry niche and (iii) life stage. The eight portfolio segments are further disaggregated into eleven classes of financing receivables and represents the level at which credit risk is monitored. Credit quality is assessed and monitored by evaluating various attributes, and the results of those evaluations are utilized in underwriting new loans and in our process to estimate ECL. For further information refer to Note 9—"Loans and Allowance for Credit Losses: Loans and Unfunded Credit Commitments." The following provides additional information regarding our portfolio segments and classes of financing receivables:

- Global Fund Banking (segment and class) – The vast majority of our GFB portfolio segment consists of capital call lines of credit, the repayment of which is dependent on the payment of capital calls by the underlying limited partner investors in funds managed by certain private equity and venture capital firms.

- Investor Dependent (segment) – Loans are made primarily to technology and life science/healthcare companies. These borrowers typically have modest or negative cash flows and rarely have an established record of profitable operations. Repayment of these loans may be dependent upon receipt by borrowers of additional equity financing from venture capital firms or other investors, or in some cases, a successful sale to a third party or an IPO. This portfolio segment is further disaggregated into two classes of financing receivables:
    - Early-Stage (class) – Loans to pre-revenue, development-stage companies and companies that are in the early phases of commercialization, with revenues of up to $5 million.
    - Growth Stage (class) – Loans to growth-stage enterprises. Within growth-stage enterprises, we consider companies with revenues between $5 million and $15 million, or pre-revenue clinical-stage biotechnology companies, to be Mid Stage, and companies with revenues in excess of $15 million to be Later Stage.
- Cash Flow Dependent and Innovation C&I (segment) – Loans are made primarily to technology and life science/healthcare companies that are not Investor Dependent, for example repayment is not dependent on additional equity financing, a successful sale or an IPO. This portfolio segment consists of two classes of financing receivables:
    - Cash Flow Dependent – SLBO (class) – Loans are typically used to assist a select group of private equity sponsors with the acquisition of businesses, are larger in size and repayment is generally dependent upon the cash flows of the combined entities. Acquired companies are typically established, later-stage businesses of scale and characterized by reasonable levels of leverage with loan structures that include meaningful financial covenants. The sponsor's equity contribution is often 50 percent or more of the acquisition price.
    - Innovation C&I (class) – Other C&I loans in innovation sectors such as technology and life science/healthcare industries. These loans are dependent on either the borrower's cash flows or balance sheet for repayment. Cash flow dependent loans require the borrower to maintain cash flow from operations that is sufficient to service all debt. Borrowers must demonstrate normalized cash flow in excess of all fixed charges associated with operating the business. Balance sheet dependent loans include asset-backed loans and are structured to require constant current asset coverage (e.g., cash, cash equivalents, accounts receivable and, to a much lesser extent, inventory) in an amount that exceeds the outstanding debt. The repayment of these arrangements is dependent on the financial condition, and payment ability, of third parties with whom our clients do business.
- Private Bank (segment and class) – Loans to our Private Bank clients who are primarily private equity/venture capital professionals and executives in the innovation companies as well as high net worth clients acquired from Boston Private. We offer a customized suite of private banking services, including mortgages, home equity lines of credit, restricted and private stock loans, personal capital call lines of credit, lines of credit against liquid assets and other secured and unsecured lending products. In addition, we provide owner occupied commercial mortgages to Private Bank clients and real estate secured loans to eligible employees through our EHOP.
- CRE (segment and class) – Generally acquisition financing loans for commercial properties such as office buildings, retail properties, apartment buildings and industrial/warehouse space.
- Other C&I (segment and class) – Loans that include working capital and revolving lines of credit, as well as term loans for equipment and fixed assets. These loans are primarily to clients that are not in the technology and life sciences/healthcare industries. Additionally, this portfolio segment contains commercial tax-exempt loans to not-for-profit private schools, colleges, public charter schools and other not-for-profit organizations.
- Premium Wine and Other (segment) – This portfolio segment consists of two classes of financing receivables:
    - Premium Wine (class) – Loans to wine producers, vineyards and wine industry or hospitality businesses across the Western United States. A large portion of these loans are secured by real estate collateral such as vineyards and wineries.
    - Other (class) – Primarily construction and land loans for financing new developments as well as financing for improvements to existing buildings. These also include our community development loans made as part of our responsibilities under the CRA.
- PPP (segment and class) – Combined loans issued through the PPP. These loans represent clients across all portfolio segments and are guaranteed by the SBA.

We maintain a systematic process for the evaluation of individual loans and portfolio segments for inherent risk of estimated credit losses for loans. At the time of approval, each loan in our portfolio is assigned a credit risk rating. Credit risk ratings are assigned on a scale of 1 to 10, with 1 representing loans with a low risk of nonpayment, 9 representing loans with the highest risk of nonpayment and 10 representing loans which have been charged-off. The credit risk ratings for each loan are monitored and updated on an ongoing basis. This credit risk rating process includes, but is not limited to, consideration of such factors as payment status, the financial condition and operating performance of the borrower, borrower compliance with loan covenants, underlying collateral values and performance trends, the degree of access to additional capital, the presence of credit enhancements such as third party guarantees (where applicable), the degree to which the borrower is sensitive to external factors and the depth and experience of the borrower's management team. Our policies require a committee of senior management to review, at least quarterly, credit relationships with a credit risk rating of 5 through 9 that exceed specific dollar values

Expected Credit Loss Measurement

The methodology for estimating the amount of ECL reported in the ACL is the sum of two main components: (i) ECL assessed on a collective basis for pools of loans that share similar risk characteristics which includes a qualitative adjustment based on management's assessment of the risks that may lead to a future loan loss experience different from our historical loan loss experience and (ii) ECL assessed for individual loans that do not share similar risk characteristics with other loans. We do not estimate ECL on AIR on loans as AIR is reversed or written off against interest income when the full collection of the AIR related to a loan becomes doubtful, which is when loans are placed on nonaccrual status. AIR on loans totaled $402 million at December 31, 2022, and $171 million at December 31, 2021, and is excluded from the amortized cost disclosures in Note 10—"Loans and Allowance for Credit Losses: Loans and Unfunded Credit Commitments", as it is included and reported separately within "Accrued interest receivable and other assets" in our consolidated balance sheets.

While the evaluation process of our ACL on loans uses historical and other objective information, the classification of loans and the estimate of the ACL for loans rely on the judgment and experience of our management. A committee comprised of senior management evaluates the appropriateness of the ACL for loans, which includes review of loan portfolio segmentation, quantitative models, internal and external data inputs, economic forecasts, credit risk ratings and qualitative adjustments.

Loans That Share Similar Risk Characteristics with Other Loans

We derive an estimated ECL assumption from a non-discounted cash flow approach based on our portfolio segments discussed above. This approach incorporates a calculation of three predictive metrics: (i) PD, (ii) LGD and (iii) EAD, over the estimated life of the exposure. PD and LGD assumptions are developed based on quantitative models and inherent risk of credit loss, both of which involve significant judgment. Renewals and extensions within our control are not considered in the estimated contractual term of a loan. The quantitative models are based on historical credit loss experience, adjusted for probability-weighted economic scenarios. These scenarios are used to support a reasonable and supportable forecast period of approximately three years for all portfolio segments. To the extent the remaining contractual lives of loans in the portfolio extend beyond the reasonable and supportable period, we revert to historical averages using a method that will gradually trend towards the mean historical loss over the remaining contractual lives of loans, adjusted for prepayments. The macroeconomic scenarios and their weighting are reviewed on a quarterly basis.

We also apply a qualitative factor adjustment to the results obtained through our quantitative ECL models to consider model imprecision, emerging risk assessments, trends and other subjective factors that may not be adequately represented in quantitative ECL models. These adjustments to historical loss information are for asset-specific risk characteristics, and also reflect our assessment of the extent that current conditions and reasonable and supportable forecasts differ from conditions that existed during the period over which historical information was evaluated. These adjustments are aggregated to become our qualitative allocation. Based on our qualitative assessment estimate of changing risks in the lending environment, the qualitative allocation may vary significantly from period to period and may include, but is not limited to, consideration of the following factors:

- Changes in lending policies and procedures, including changes in underwriting standards and collection, charge-off and recovery practices not considered elsewhere in estimating credit losses;
- Changes in international, national, regional and local economic and business conditions and developments that affect the collectability of the portfolio, including the condition of various market segments;
- Changes in the nature and volume of the portfolio and in the terms of loans;
- Changes in the experience, ability and depth of lending management and other relevant staff;
- Changes in the volume and severity of past due loans, the volume of nonaccrual loans and the volume and severity of adversely classified or graded loans;
- Changes in the quality of our loan review system;

- Changes in the value of underlying collateral for collateral-dependent loans;
- The existence and effect of any concentrations of credit, and changes in the level of such concentrations;
- The effect of other external factors such as competition and legal and regulatory requirements on the level of estimated credit losses in our existing portfolio; and
- The effect of limitations of available data, model imprecision and recent macro-economic factors that may not be reflected in the forecast information.

Loans That Do Not Share Similar Risk Characteristics

We monitor our loan pools to ensure all assets therein continue to share similar risk characteristics with other financial assets inside the pool. Changes in credit risk, borrower circumstances or the recognition of write-offs may indicate that a loan's risk profile has changed, and the asset should be removed from its current pool. For a loan that does not share risk characteristics with other loans, ECL is measured based on the net realizable value, that is, the difference between the discounted value of the expected future cash flows and the amortized cost basis of the loan. When a loan is collateral-dependent and the repayment is expected to be provided substantially through the operation or sale of the collateral, the ECL is measured as the difference between the amortized cost basis of the loan and the fair value of the collateral. The fair value of the collateral will be determined by the most recent appraisal, as adjusted to reflect a reasonable marketing period for the sale of the asset(s) and an estimate of reasonable selling expenses. Collateral-dependent loans will have independent appraisals completed at least annually.

Allowance for Credit Losses: Unfunded Credit Commitments

We maintain a separate ACL for unfunded credit commitments, which is included in other liabilities, and the related ECL in our provision for credit losses. We estimate the amount of expected losses by using historical trends to calculate a probability of an unfunded credit commitment being funded and derive historical lifetime expected loss factors for each portfolio segment similar to our funded loan ECL. The collectively assessed ECL for unfunded credit commitments also includes the same qualitative allocations applied for our funded loan ECL. For unfunded credit commitments related to loans that do not share similar risk characteristics with other loans, where applicable, a separate estimate of ECL will be included in our total ACL on unfunded credit commitments. Loan commitments that are determined to be unconditionally cancellable by the Company do not require an ACL on unfunded credit commitments.

Uncollectible Loans and Write-offs

Our charge-off policy applies to all loans, regardless of portfolio segment. Commercial loans are considered for a full or partial charge-off in the event that principal or interest is over 180 days past due and the loan lacks sufficient collateral and it is not in the process of collection. Consumer loans are considered for a full or partial charge-off in the event that principal or interest is over 120 days past due and the loan lacks sufficient collateral and it is not in the process of collection. We also consider writing off loans in the event of any of the following circumstances: 1) the loan, or a portion of the loan is deemed uncollectible due to: (i) the borrower's inability to make recurring payments, (ii) material changes in the borrower's financial condition, or (iii) the expected sale of all or a portion of the borrower's business is insufficient to repay the loan in full, or 2) the loan has been identified for charge-off by regulatory authorities.

Troubled Debt Restructurings

A TDR arises from the modification of a loan where we have granted a concession to the borrower related to the borrower's financial difficulties that we would not have otherwise considered for economic or legal reasons. These concessions may include: (i) deferral of payment for more than an insignificant period of time that does not include sufficient offsetting borrower concessions, (ii) interest rate reductions, (iii) extension of the maturity date outside of ordinary course extension, (iv) principal forgiveness or (v) reduction of accrued interest.

We use the factors in ASC 310-40, *Receivables, Troubled Debt Restructurings by Creditors,* in analyzing when a borrower is experiencing financial difficulty, and when we have granted a concession, both of which must be present for a restructuring to meet the criteria of a TDR. If we determine that a TDR exists, we measure impairment based on the present value of expected future cash flows discounted at the loan's effective interest rate, except that as a practical expedient, we may also measure impairment based on a loan's observable market price, or the fair value of the collateral less selling costs if the loan is a collateral-dependent loan.

In April 2020, we implemented three loan payment deferral programs targeted to assist borrowers who were the most impacted by the COVID-19 pandemic. These programs included relief for venture-backed, private bank and wine borrowers who met certain criteria. For loans modified under these programs, in accordance with the provisions of Section 4013 of the CARES Act, we elected to not apply TDR classifications to borrowers who were current as of December 31, 2019. In addition, for loans that did not meet the CARES Act criteria, we applied the guidance in an interagency statement issued by bank regulatory agencies. Using this guidance, we may find that borrowers are not experiencing financial difficulty that may otherwise result in a TDR classification, in accordance with ASC Subtopic 310-40, if loan modifications are performed in response to the COVID-19 pandemic, provide short-term loan payment deferrals (e.g., six months in duration) and are granted to borrowers who were current as of the implementation date of the loan modification program. We evaluated all loans modified under these programs against the CARES Act and interagency guidance, as applicable, and determined the loan modifications would not be considered TDRs. We did not defer interest income recognition during periods of payment deferral, nor did any qualifying modification trigger nonaccrual status.

Nonaccrual Loans

Loans are generally placed on nonaccrual status when they become 90 days past due as to principal or interest payments (unless the principal and interest are well secured and in the process of collection); or when we have determined, based upon currently known information, that the timely collection of principal or interest is not probable.

When a loan is placed on nonaccrual status, the accrued interest and fees are reversed against interest income and the loan is accounted for using the cost recovery method thereafter until qualifying for return to accrual status. For a loan to be returned to accrual status, all delinquent principal and interest must become current in accordance with the terms of the loan agreement and future collection of remaining principal and interest must be deemed probable. We apply a cost recovery method in which all cash received is applied to the loan principal until it has been collected. Under this approach, interest income is recognized after total cash flows received exceed the recorded investment at the date of initial nonaccrual. All of our nonaccrual loans have credit risk ratings of 8 or 9 and are classified under the nonperforming category.

Purchased Credit-Deteriorated Loans

Loans acquired where there is evidence of more than insignificant credit deterioration since origination are classified as PCD. We consider various factors in connection with this determination, including past due or nonaccrual status, credit risk rating declines and any write downs recorded based on the collectability of the asset, among other factors. PCD loans are recorded at their purchase price plus an ECL estimated at the time of acquisition, which represents the amortized cost basis of the asset. The difference between this amortized cost basis and the par value of the loan is the non-credit discount or premium, which is amortized into interest income over the life of the loan. Subsequent increases and decreases in the ACL related to purchased loans is recorded as provision expense.

Premises and Equipment

Premises and equipment are reported at cost less accumulated depreciation and amortization. Depreciation and amortization are computed using the straight-line method over the estimated useful lives of the assets or the terms of the related leases, whichever is shorter. The estimated useful lives by asset classification are as follows:

Leasehold improvements	Lesser of lease term or asset life
Furniture and equipment	3-7 years
Computer software	3-7 years
Computer hardware	3-5 years

We capitalize the costs of computer software developed or obtained for internal use, including costs related to developed software, purchased software licenses and certain implementation costs.

Premises and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. For property and equipment that is retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts, and the resulting gain or loss is included in noninterest expense in consolidated net income.

Lease Obligations

We have entered into leases for real estate and equipment. At the inception of the lease, each lease is evaluated to determine whether the lease will be accounted for as an operating or finance lease. We had no finance lease obligations at December 31, 2022, and December 31, 2021. We have made an accounting policy election not to recognize right-of-use assets and lease liabilities that arise from short-term leases for any class of underlying asset. In addition to excluding short-term leases, we have implemented an accounting policy in which non-lease components are not separated from lease components in the measurement of ROU asset and lease liabilities for all lease contracts.

ROU assets represent our right to use an underlying asset for the lease term, and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at the commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. We use the implicit rate when readily determinable. The operating lease ROU asset also includes any lease payments made and excludes lease incentives. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

The Company reviews ROU assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. ROU assets are reviewed for recoverability at the lowest level in which there are identifiable cash flows (“asset group”). The carrying amount of an asset group is not considered recoverable if it exceeds the sum of the undiscounted cash flows expected to result from its use and eventual disposition. If the asset group is determined not to be recoverable, then an impairment charge is recognized in the amount by which the carrying amount of the asset group exceeds its fair value. The resulting impairment charge, if any, is allocated to the underlying assets on a pro rata basis using their relative carrying amounts.

Business Combinations

Business combinations are accounted for under the acquisition method of accounting. Acquired assets, including separately identifiable intangible assets, and assumed liabilities are recorded at their acquisition-date estimated fair values. The excess of the cost of acquisition over these fair values is recognized as goodwill. During the measurement period, which cannot exceed one year from the acquisition date, changes to estimated fair values are recognized as an adjustment to goodwill. Certain transaction costs are expensed as incurred.

Goodwill and Other Intangible Assets

Goodwill is not amortized and is subject, at a minimum, to an annual impairment assessment. We may decide to complete a qualitative assessment to determine whether it is more likely than not, that the fair value of a reporting unit is below its carrying amount. As part of this qualitative analysis, we consider macroeconomic factors that might impact the entity’s performance such as changes in interest rates, changes in industry-specific factors and Gross Domestic Product ("GDP"). We also consider the reporting unit's competitive environment, including potential regulatory impact, the political landscape and market pressure. Further, we evaluate entity-specific financial performance of the reporting unit, changes in management or staffing, changes in overall strategy and other factors. If we choose to bypass this qualitative assessment, or we determine it is more likely than not that the fair value of a reporting unit is below its carrying amount, a quantitative assessment will be completed. Should we be required to calculate the fair value of the reporting unit, we would generally apply a discounted cash flow analysis that uses forecasted performance estimates, and a discount rate leveraging a reporting unit specific capital asset pricing model, which in turn uses assumptions related to market performance and various macroeconomic and reporting unit specific risks. We will evaluate goodwill for impairment more frequently if circumstances indicate that the fair value of our reporting units is less than their carrying value, including goodwill.

Intangible assets with finite lives are amortized over their estimated useful lives, and all intangible assets are subject to impairment if events or circumstances indicate that the fair value is less than the carrying amount.

Fair Value Measurements

Our AFS securities, derivative instruments and certain equity securities are financial instruments recorded at fair value on a recurring basis. We make estimates regarding valuation of assets and liabilities measured at fair value in preparing our consolidated financial statements.

Fair Value Measurement-Definition and Hierarchy

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (the “exit price”) in an orderly transaction between market participants at the measurement date. There is a three-level hierarchy for disclosure of assets and liabilities recorded at fair value. The classification of assets and liabilities within the hierarchy is based on whether the inputs to the valuation methodology used for measurement are observable or unobservable and on the significance of those inputs in the fair value measurement. Observable inputs reflect market-derived or market-based information obtained from independent sources, while unobservable inputs reflect our estimates about market data and views of market participants. The three levels for measuring fair value are based on the reliability of inputs and are as follows:

Level 1

Fair value measurements based on quoted prices in active markets for identical assets or liabilities that we have the ability to access. Since valuations are based on quoted prices that are readily and regularly available in an active market, valuation of these instruments does not entail a significant degree of judgment. Assets utilizing Level 1 inputs include U.S. Treasury securities, foreign government debt securities, exchange-traded equity securities and certain marketable securities accounted for under fair value accounting.

Level 2

Fair value measurements based on quoted prices in markets that are not active or for which all significant inputs are observable, directly or indirectly. Below is a summary of the significant inputs used for each class of Level 2 assets and liabilities:

AFS Securities: Valuations for the AFS securities are provided by independent pricing service providers who have experience in valuing these securities and are compared to the average of quoted market prices obtained from independent brokers. We perform a monthly analysis on the values received from third-parties so that the prices represent a reasonable estimate of the fair value. The procedures include, but are not limited to, initial and ongoing review of third-party pricing methodologies, review of pricing trends and monitoring of trading volumes. Additional corroboration, such as obtaining a non-binding price from a broker, may be obtained depending on the frequency of trades of the security and the level of liquidity or depth of the market. Prices received from independent brokers represent a reasonable estimate of the fair value and are validated through the use of observable market inputs including comparable trades, yield curve, spreads and, when available, market indices. If we determine that there is a more appropriate fair value based upon the available market data, the price received from the third party is adjusted accordingly.

U.S. agency debentures: Fair value measurements of U.S. agency debentures are based on the characteristics specific to bonds held, such as issuer name, issuance date, coupon rate, maturity date and any applicable issuer call option features. Valuations are based on market spreads relative to similar term benchmark interest rates, generally U.S. Treasury securities.

Agency-issued MBS: Agency-issued MBS are pools of individual conventional mortgage loans underwritten to U.S. agency standards with similar coupon rates, tenor and other attributes such as geographic location, loan size and origination vintage. Fair value measurements of these securities are based on observable price adjustments relative to benchmark interest rates taking into consideration estimated loan prepayment speeds.

Agency-issued CMO: Agency-issued CMO are structured into classes or tranches with defined cash flow characteristics and are collateralized by U.S. agency-issued mortgage pass-through securities. Fair value measurements of these securities incorporate similar characteristics of mortgage pass-through securities such as coupon rate, tenor, geographic location, loan size and origination vintage, in addition to incorporating the effect of estimated prepayment speeds on the cash flow structure of the class or tranche. These measurements incorporate observable market spreads over an estimated average life after considering the inputs listed above.

Agency-issued CMBS: Fair value measurements of these securities are based on spreads to benchmark interest rates (usually U.S. Treasury rates or rates observable in the swaps market), prepayment speeds, loan default rate assumptions and loan loss severity assumptions on underlying loans.

Derivative assets and liabilities: Fair value measurements of these assets and liabilities are priced based on the following:

- Foreign exchange forward and option contract assets and liabilities are priced based on spot and forward foreign currency rates and option volatility assumptions.
- Interest rate derivative and interest rate swap assets and liabilities are priced considering the coupon rate of the fixed leg of the contract and the variable coupon rate on the floating leg of the contract. Valuation is based on both spot and forward rates on the swap yield curve and the credit worthiness of the contract counterparty.
- Total return swaps are based upon the performance of the reference asset, the variable coupon rate and spread of the floating leg of the contract.

Other equity securities: Fair value measurements of equity securities of public companies are priced based on quoted market prices less a discount if the securities are subject to certain sales restrictions. Certain sales restriction discounts generally range from 10 percent to 20 percent depending on the duration of the sale restrictions, which typically range from three to six months.

Equity warrant assets (public portfolio): Fair value measurements of equity warrant assets of publicly-traded portfolio companies are valued based on the Black-Scholes option pricing model. The model uses the price of publicly-traded companies (underlying stock price), stated strike prices, warrant expiration dates, the risk-free interest rate and market-observable option volatility assumptions.

Level 3

The fair value measurement is derived from valuation techniques that use significant assumptions not observable in the market. These unobservable assumptions reflect our own estimates of assumptions we believe market participants would use in pricing the asset. The valuation techniques are consistent with the market approach, income approach or the cost approach used to measure fair value. Below is a summary of the valuation techniques used for each class of Level 3 assets:

Venture capital and private equity fund investments not measured at net asset value: Fair value measurements are based on consideration of a range of factors including, but not limited to, the price at which the investment was acquired, the term and nature of the investment, local market conditions, values for comparable securities and as it relates to the private company, the current and projected operating performance, exit strategies and financing transactions subsequent to the acquisition of the investment. The significant unobservable inputs used in the fair value measurement include the information about each portfolio company, including actual and forecasted results, cash position, recent or planned transactions and market comparable companies.

Equity warrant assets (public portfolio): Fair value measurements of equity warrant assets of publicly-traded portfolio companies are valued based on the Black-Scholes option pricing model. The model uses the price of publicly-traded companies (underlying stock price), stated strike prices, warrant expiration dates, the risk-free interest rate and market-observable option volatility assumptions. Modeled asset values are further adjusted by applying a discount of up to 20 percent for certain warrants that have certain sales restrictions or other features that indicate a discount to fair value is warranted.

Equity warrant assets (private portfolio): Fair value measurements of equity warrant assets of private portfolio companies are priced based on a Black-Scholes option pricing model to estimate the asset value by using stated strike prices, option expiration dates, risk-free interest rates and option volatility assumptions. Option volatility assumptions used in the Black-Scholes model are based on public market indices whose members operate in similar industries as companies in our private company portfolio. Option expiration dates are modified to account for estimates to actual life relative to stated expiration. Overall model asset values are further adjusted for a general lack of liquidity due to the private nature of the associated underlying company. There is a direct correlation between changes in the volatility and remaining life assumptions in isolation and the fair value measurement while there is an inverse correlation between changes in the liquidity discount assumption and the fair value measurement.

Contingent conversion rights (public portfolio): Fair value measurements of contingent conversion rights of publicly-traded portfolio companies are valued based on the Black-Scholes option pricing model. The model uses the price of publicly-traded companies (underlying stock price), stated strike prices, warrant expiration dates, the risk-free interest rate and market-observable option volatility assumptions. Modeled asset values are further adjusted by applying a discount of up to 20 percent for certain conversion rights that have certain sales restrictions or other features that indicate a discount to fair value is warranted. As sale restrictions are lifted, discounts are adjusted downward to zero once all restrictions expire or are removed.

Contingent conversion rights (private portfolio): Fair value measurements are based on consideration of a range of factors including, but not limited to, actual and forecasted enterprise values, probability of conversion event occurring and limitations and conversion pricing outlined in the convertible debt agreement. Additionally, we have ongoing communication with the portfolio companies and relationship teams to determine whether there is a material change in fair value. We use company provided valuation reports, if available, to support our valuation assumptions. These factors are specific to each portfolio company and a weighted average or range of values of the unobservable inputs is not meaningful.

Fee-based Services Revenue Recognition

Refer to Note 17—“Noninterest Income” for our fee-based services revenue recognition policies for our contracts with customers.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Our federal, state and foreign income tax provisions are based upon taxes payable for the current year, current year changes in deferred taxes related to temporary differences between the tax basis and financial statement balances of assets and liabilities and a reserve for uncertain tax positions. Deferred tax assets and liabilities are included in the consolidated financial statements at currently enacted income tax rates applicable to the period in which the deferred tax assets and liabilities are expected to be realized. As changes in tax laws or rates are enacted, deferred tax assets and liabilities are adjusted through the provision for income taxes. A valuation allowance is provided, when it is determined based upon available evidence, that it is more likely than not that some portion of the deferred tax asset will not be realized.

We file a consolidated federal income tax return, and consolidated, combined, or separate state income tax returns as appropriate. Our foreign incorporated subsidiaries file tax returns in the applicable foreign jurisdictions. Interest and penalties related to unrecognized tax benefits are recorded in other noninterest expense, a component of consolidated net income. We use the deferral method of accounting on investments that generate investment tax credits. Under this method, the investment tax credits are recognized as a reduction to the related asset.

Share-Based Compensation

Generally, for our stock-based awards granted, stock-based compensation expense is amortized on a straight-line basis over the requisite service period, including consideration of vesting conditions and anticipated forfeitures. The service period is reduced for a select number of awards that provide for continued vesting upon retirement if any of the grantees are retirement eligible at the date of grant (or will become retirement eligible during the vesting period). The fair value of stock options is measured using the Black-Scholes option-pricing model, and the fair value for restricted stock awards and restricted stock units is based on the quoted price of our common stock on the date of grant.

Earnings Per Share

Basic earnings per common share is computed using the weighted average number of common stock shares outstanding during the period. Diluted earnings per common share is computed using the weighted average number of common stock shares and potential common shares outstanding during the period. Potential common shares include stock options, ESPP shares and restricted stock units. Potential common shares are excluded from the computation if the effect is antidilutive.

Derivative Financial Instruments

All derivative instruments are recorded on the balance sheet at fair value. The accounting for changes in fair value of a derivative financial instrument depends on whether the derivative financial instrument is designated and qualifies as part of a hedging relationship and, if so, the nature of the hedging activity. Changes in fair value are recognized through earnings for derivatives that do not qualify for hedge accounting treatment, or that have not been designated in a hedging relationship.

Cash Flow Hedges

For derivative instruments that are designated and qualify as a cash flow hedge, changes in the fair value of the derivative are recorded in AOCI and recognized in earnings as the hedged item affects earnings. To qualify for hedge accounting, a derivative must be highly effective at reducing exposure to the hedged risk. Derivative amounts affecting earnings are recognized consistent with the classification of the hedged item. We assess hedge effectiveness on a quarterly basis to ensure all hedges remain highly effective to ensure hedge accounting can be applied. If the hedging relationship no longer exists or no longer qualifies as a hedge, any amounts remaining as gain or loss in AOCI are reclassified into earnings in the line item "loans" as part of interest income, a component of consolidated net income.

Fair Value Hedges

For derivative instruments that are designated and qualify as a fair value hedge, both the changes in the fair value of the derivative and the portion of the fair value adjustments associated with the portfolio attributable to the hedged risk will be recognized into earnings as they occur. To qualify for hedge accounting, a derivative must be highly effective at reducing the hedged risk exposure. Derivative amounts affecting earnings are recognized consistent with the classification of the hedged item. We assess hedge effectiveness on a quarterly basis to ensure all hedges remain highly effective and hedge accounting can be applied. If the hedging relationship no longer exists or no longer qualifies as a hedge, any remaining fair value basis adjustments are allocated to the individual assets in the portfolio and amortized into earnings over a period consistent with the amortization of other discounts and premiums associated with the respective assets.

Net Investment Hedges

For derivative instruments that are designated and qualify as a net investment hedge, the gain or loss from hedge revaluation is recorded in AOCI in the line item "foreign currency translation (losses) gains, net of hedges." We reassess hedge effectiveness at least quarterly. If the hedging relationship no longer exists or no longer qualifies for hedge accounting, any amounts remaining as gains or losses in AOCI are not reclassified into earnings until the sale or liquidation of the associated foreign operation.

Equity Warrant Assets

In connection with negotiated credit facilities and certain other services, we may obtain equity warrant assets giving us the right to acquire stock in primarily private, venture-backed companies in the technology and life science/healthcare industries. We hold these assets for prospective investment gains. We do not use them to hedge any economic risks nor do we use other derivative instruments to hedge economic risks stemming from equity warrant assets.

In general, equity warrant assets entitle us to buy a specific number of shares of stock at a specific price within a specific time period. Certain equity warrant assets contain contingent provisions, which adjust the underlying number of shares or purchase price upon the occurrence of specified future events. Substantially all our warrant agreements qualify as derivatives and are reported at fair value as a component of other assets, on our consolidated balance sheet.

The grant date fair values of equity warrant assets received in connection with the issuance of a credit facility are deemed to be loan fees and recognized as an adjustment of loan yield through loan interest income. Similar to other loan fees, the yield adjustment related to grant date fair value of warrants is recognized over the life of that credit facility. Any changes in fair value after the grant date are recognized as net gains or losses on equity warrant assets, in noninterest income, a component of consolidated net income.

We value our equity warrant assets using a Black-Scholes option pricing model, which incorporates the following significant inputs:

- An underlying asset value, which is estimated based on current information available in valuation reports, including any information regarding subsequent rounds of funding or performance of a company.
- Stated strike price, which can be adjusted for certain warrants upon the occurrence of subsequent funding rounds or other future events.
- Price volatility or risk associated with possible changes in the warrant price. The volatility assumption is based on historical price volatility of publicly traded companies within indices similar in nature to the underlying client companies issuing the warrant. The actual volatility input is based on the mean and median volatility for an individual public company within an index for the past 16 quarters, from which an average volatility was derived.
- Actual data on terminations and exercises of our warrants are used as the basis for determining the expected remaining life of the warrants in each financial reporting period. Warrants may be exercised in the event of acquisitions, mergers or IPOs and alternatively may be cancelled due to events such as bankruptcies, restructuring activities or additional financings. These events may cause the expected remaining life assumption to be shorter than the contractual term of the warrants.
- The risk-free interest rate is derived from the Treasury yield curve and is calculated based on a weighted average of the risk-free interest rates that correspond closest to the expected remaining life of the warrant.
- Other adjustments, including a marketability discount, are estimated based on management's judgment about the general industry environment.
- Number of shares and contingencies associated with obtaining warrant positions such as the funding of associated loans.

When a company in the portfolio completes an IPO, or is acquired, we may exercise these equity warrant assets for shares or cash. In the event of an exercise for common stock shares, the basis or value in the common stock shares is reclassified from other assets to investment securities on the balance sheet on the latter of the exercise date or corporate action date.

The common stock of public companies is classified as non-marketable and other equity securities. Changes in the fair value of the common stock is recorded as gains or losses on investments securities, in noninterest income, a component of consolidated net income. We account for these securities without a readily determinable fair value based on the price at which the investment was acquired plus or minus changes resulting from observable price changes in orderly transactions for identical or similar investments, with changes recorded as gains or losses on investment securities, in noninterest income, a component of consolidated net income.

Foreign Exchange Forwards and Foreign Currency Option Contracts

We enter into foreign exchange forward contracts and foreign currency option contracts with clients involved in international activities, either as the purchaser or seller, depending upon the clients' need. We also enter into an opposite-way forward or option contract with a correspondent bank to economically hedge client contracts to mitigate the fair value risk to us from fluctuations in currency rates. Settlement, credit and operational risks remain. We also enter into forward contracts with correspondent banks to economically hedge currency exposure risk related to certain foreign currency denominated assets and liabilities. These contracts are not designated as hedging instruments and are recorded at fair value in our consolidated balance sheets. The contracts generally have terms of one year or less, although we may have contracts extending for up to five years. Generally, we have not experienced nonperformance on these contracts, have not incurred credit losses and anticipate performance by all counterparties to such agreements. Changes in the fair value of these contracts are recognized in consolidated net income under other noninterest income, a component of noninterest income. Period-end gross positive fair values are recorded in other assets and gross negative fair values are recorded in other liabilities.

Interest Rate Contracts

We sell interest rate contracts to clients who wish to mitigate their interest rate exposure. We economically reduce the interest rate risk from this business by entering into opposite-way contracts with correspondent banks. We do not designate any of these contracts (which are derivative instruments) as qualifying for hedge accounting. Contracts in an asset position are included in other assets and contracts in a liability position are included in other liabilities. The net change in the fair value of these derivatives is recorded through other noninterest income, in noninterest income, a component of consolidated net income.

Changes in Accounting Principles

During 2022, we changed our presentation of derivative asset and liability positions and the related cash collateral in the unaudited interim consolidated balance sheets. The balances are presented net by counterparty when a legally enforceable right of setoff exists under a master netting arrangement in accordance with ASC 815, Derivatives and Hedging. Previously, fair values of derivative positions were reported in the line items “Accrued interest receivable and other assets” and “Other liabilities” gross. The related cash collateral was reported in the line items "Cash and cash equivalents" and "Short-term borrowings". For impact on presentation, please refer to the balance sheet offsetting section of Note 16 – “Derivative Financial Instruments”. This change had no impact on our net income. We concluded that this presentation was preferable as it better reflects the credit risk of derivatives traded under master netting arrangements. This change represents a change in accounting principle under ASC 250, Accounting Changes and Error Corrections, with retrospective application to the earliest period presented.

Reclassifications

Certain prior period amounts have been reclassified to conform to current period presentation to account for the change in presentation of derivative asset and liability positions and the related cash collateral disclosed in the Summary of Significant Accounting Polices in Part 1, Item 1 of this report. These changes are included in our Consolidated Balance Sheets (unaudited) and Consolidated Statements of Cash Flows (unaudited) as well as the Cash and Cash Equivalents, Derivative Financial Instruments and Fair Value of Financial Instruments footnotes.

3. Business Combination

Boston Private

On July 1, 2021, we acquired, by merger, 100 percent of the voting equity interests of Boston Private Financial Holdings, Inc., the parent company of Boston Private Bank & Trust Company. The acquisition of Boston Private accelerates SVB’s private banking and wealth management offering, strengthening SVB’s overall platform and ability to fully meet the financial needs of its clients. The acquisition was accounted for as a business combination and accordingly, the results of Boston Private's operations have been included in the Company's consolidated financial statements from the date of acquisition.

We acquired Boston Private for $1.2 billion comprised of $2.10 in cash and 0.0228 shares of SVB common stock for each Boston Private share. For the transaction, we issued approximately 1.9 million shares of SVB common stock and registered an additional 99,000 shares of SVB common stock issuable upon the exercise, vesting or settlement of converted legacy Boston Private equity awards.

The following table summarizes the allocation of the purchase price to the net assets of Boston Private as of July 1, 2021:

(Dollars in millions)	July 1, 2021
Cash paid	$ 174
Share-based consideration	1,050
Replacement equity awards	10
Total purchase consideration	$ 1,234
Fair value of net assets acquired	1,033
Goodwill	$ 201

The following table summarizes the estimated fair value of assets acquired and liabilities assumed upon the finalization of the purchase:

(Dollars in million)	July 1, 2021
Assets acquired:	
Cash and cash equivalents	$ 1,290
Investment securities	1,429
Loans	7,217
Premises and equipment	39
Intangible assets	104
Right-of-use assets	107
Other assets	284
Total assets acquired	10,470
Liabilities assumed:	
Deposits	8,983
Borrowings	132
Lease liabilities	103
Other liabilities	219
Total liabilities assumed	9,437
Fair value of net assets acquired	$ 1,033

The Company recognized identifiable intangible assets of $104 million and goodwill of $201 million as a result of the acquisition. Intangible assets of $104 million are subject to amortization over their estimated useful lives. The goodwill recorded includes expected revenue-generating synergies driven by the broadening of our product suite and strength of the combined platform, providing our teams with expanded capabilities, technology and scalability to meet the increasing needs of our private banking clients. Goodwill amounts have been allocated to the SVB Private reporting segment and will not be deductible for tax purposes.

The following table summarizes the fair value and estimated useful lives of the other intangible assets at the date of acquisition:

(Dollars in millions)	Estimated Fair Value	Weighted Average Estimated Useful Life - in Years
Other intangible assets:		
Customer relationships	$ 85	20
Other	19	6
Total other intangible assets	$ 104	

Of the $7.2 billion net loans acquired, $1.4 billion exhibited credit deterioration on the date of purchase. The following table provides a summary of these PCD loans at acquisition:

(Dollars in millions)	July 1, 2021
Par value of PCD loans	$ 1,368
PCD ACL at acquisition	(22)
Non-credit premium on PCD loans	43
Purchase price of PCD loans	$ 1,389

Due to the various conversions of Boston Private systems since the date of acquisition, as well as other streamlining and continuing integration of Boston Private's operating activities into those of the Company, reporting for revenue and net income of the former Boston Private operations for the period subsequent to the acquisition is impracticable.

Supplementary pro forma financial information related to the acquisition is not included because the impact to the Company's consolidated statements of income is not material.

Direct expenses related to the acquisition of Boston Private were expensed as incurred and were $22 million for twelve months ended December 31, 2021. All expenses were included in merger-related charges, a component of noninterest expense, with the exception of $6 million attributable to the three months ended March 31, 2021, which were recorded in professional services.

MoffettNathanson LLC

On December 10, 2021, we acquired 100 percent of the voting equity interests of MoffettNathanson LLC, a New York-based independent sell-side research firm known for its coverage of high-growth, disruptive companies in the Media, Communications and Technology sectors. The acquisition enables SVB's investment banking business, SVB Securities, to expand its research coverage to include companies in both the healthcare and technology industries. The acquisition was accounted for as a business combination and accordingly, the results of MoffettNathanson LLC operations have been included in the Company's consolidated financial statements from the date of acquisition.

Supplementary pro forma financial and purchase information related to the acquisition is not included because the impact to the Company's consolidated financial statements is not material.

4. Stockholders' Equity and EPS

Accumulated Other Comprehensive Income

The following table summarizes the items reclassified out of AOCI into the Consolidated Statements of Income for 2022, 2021 and 2020:

		Year ended December 31,		
(Dollars in millions)	Income Statement Location	2022	2021	2020
Reclassification adjustment for (gains) losses on AFS securities included in net income	Gains (losses) on investment securities, net	$ (21)	$ (31)	$ (61)
Related tax expense (benefit)	Income tax expense	6	9	17
Reclassification adjustment for (gains) losses on cash flow hedges included in net income	Net interest income	(56)	(63)	(50)
Related tax expense (benefit)	Income tax expense	16	17	14
Total reclassification adjustment for (gains) losses included in net income, net of tax		$ (55)	$ (68)	$ (80)

The table below summarizes the activity relating to net gains and losses on our cash flow hedges included in AOCI for 2022, 2021 and 2020. Refer to Note 16—"Derivative Financial Instruments" for additional information regarding the termination of our cash flow hedges during the quarter ended March 31, 2020. Over the next 12 months, we expect that approximately $41 million in AOCI at December 31, 2022, related to unrealized gains will be reclassified out of AOCI and recognized in net income.

	Year ended December 31,		
(Dollars in millions)	2022	2021	2020
Balance, beginning of period, net of tax	$ 83	$ 130	$ (2)
Net (decrease) increase in fair value, net of tax	—	(1)	168
Net realized (gain) loss reclassified to net income, net of tax	(40)	(46)	(36)
Balance, end of period, net of tax	$ 43	$ 83	$ 130

EPS

Basic EPS is the amount of earnings available to each share of common stock outstanding during the reporting period. Diluted EPS is the amount of earnings available to each share of common stock outstanding during the reporting period adjusted to include the effect of potentially dilutive common shares. Potentially dilutive common shares include incremental shares issuable for stock options and restricted stock unit awards outstanding under our 2006 Equity Incentive Plan and our ESPP. Potentially dilutive common shares are excluded from the computation of dilutive EPS in periods in which the effect would be antidilutive. The following is a reconciliation of basic EPS to diluted EPS for 2022, 2021 and 2020:

	Year ended December 31,		
(Dollars in millions except per share amounts, shares in thousands)	2022	2021	2020
Numerator:			
Net income available to common stockholders	$ 1,509	$ 1,770	$ 1,191
Denominator:			
Weighted average common shares outstanding—basic	58,987	55,763	51,685
Weighted average effect of dilutive securities:			
Stock options and ESPP	168	283	151
Restricted stock units	361	592	248
Weighted average common shares outstanding—diluted	59,516	56,638	52,084
Earnings per common share:			
Basic	$ 25.58	$ 31.74	$ 23.05
Diluted	$ 25.35	$ 31.25	$ 22.87

The following table summarizes the weighted average common shares excluded from the diluted EPS calculation due to the antidilutive effect for 2022, 2021 and 2020:

	Year ended December 31,		
(Shares in thousands)	2022	2021	2020
Stock options	117	37	279
Restricted stock units	390	2	10
Total	507	39	289

Common Stock

On March 22, 2021, to support the continued growth of our balance sheet, we issued and sold 2,000,000 shares of common stock at a price of $500.00 per share. We received net proceeds of $972 million after deducting underwriting discounts and commissions.

On April 14, 2021, the Company issued and sold 300,000 additional shares of common stock under the full exercise of the underwriters' over-allotment option from our March 22, 2021 underwritten public offering. We received additional net proceeds of $146 million after deducting underwriting discounts and commissions.

On July 1, 2021, the Company issued 1,887,981 shares of common stock for the acquisition of Boston Private at an exchange ratio of 0.0228 SIVB shares per Boston Private share.

On August 12, 2021, the Company issued and sold 2,227,000 shares of common stock at a price of $564.00 per share. We received net proceeds of $1.2 billion after deducting underwriting discounts and commissions.

Preferred Stock

On December 9, 2019, the Company issued 5.25% Non-Cumulative Perpetual Series A Preferred Stock ("Series A Preferred Stock"). The public offering consisted of 14,000,000 depositary shares, each representing a 1/40th ownership interest in shares of the Series A preferred stock with $0.001 par value and liquidation preference of $1,000 per share, or $25 per depositary share. The Series A Preferred Stock is redeemable at the Company's option, subject to all applicable regulatory approvals, on or after February 15, 2025.

On February 2, 2021, the Company issued 4.10% Non-Cumulative Perpetual Series B Preferred Stock ("Series B Preferred Stock"). The public offering consisted of 750,000 depositary shares, each representing a 1/100th ownership interest in shares of Series B Preferred Stock with $0.001 par value and liquidation preferences of $100,000 per share, or $1,000 per depositary

share. Dividends, if approved and declared by the Board of Directors, are payable quarterly, in arrears, at a rate per annum equal to (i) 4.10 percent from the original issue date to, but excluding, February 15, 2031 and (ii) for the February 15, 2031 dividend date and during each subsequent ten-year period, the ten-year treasury rate (calculated three business days prior to each reset date as the five-day average of the yields on actively traded U.S. treasury securities adjusted to constant maturity, for ten-year maturities) plus 3.064 percent.

On May 13, 2021, the Company issued 4.00% Non-Cumulative Perpetual Series C Preferred Stock ("Series C Preferred Stock"). The public offering consisted of 1,000,000 depositary shares, each representing a 1/100th ownership interest in shares of Series C Preferred Stock with $0.001 par value and liquidation preferences of $100,000 per share, or $1,000 per depositary share. Dividends, if approved and declared by the Board of Directors, are payable quarterly, in arrears, at a rate per annum equal to (i) 4.000 percent from the original issue date to, but excluding, May 15, 2026, and (ii) for the May 15, 2026 dividend date and during each subsequent five-year period, the five-year treasury rate (calculated three business days prior to each reset date as the five-day average of the yields on actively traded U.S. treasury securities adjusted to constant maturity, for five-year maturities) plus 3.202 percent.

On October 28, 2021, the Company issued 4.25% and 4.70% Non-Cumulative Perpetual Series D Preferred Stock ("Series D Preferred Stock") and Series E Preferred Stock ("Series E Preferred Stock"), respectively. The public offering for Series D Preferred Stock consisted of 1,000,000 depositary shares, each representing a 1/100th ownership interest in shares of Series D Preferred Stock with $0.001 par value and liquidation preferences of $100,000 per share, or $1,000 per depositary share. Series D Preferred Stock dividends, if approved and declared by the Board of Directors, are payable quarterly, in arrears, at a rate per annum equal to (i) 4.250 percent from the original issue date of the Series D Preferred Stock to, but excluding, November 15, 2026, and (ii) for the November 15, 2026 dividend date and during each subsequent five-year period, the five-year treasury rate (calculated three business days prior to each reset date as the five-day average of the yields on actively traded U.S. treasury securities adjusted to constant maturity, for five-year maturities) plus 3.074 percent.

The public offering for Series E Preferred Stock consisted of 600,000 depositary shares, each representing a 1/100th ownership interest in shares of Series E Preferred Stock with $0.001 par value and liquidation preferences of $100,000 per share, or $1,000 per depositary share. Series E Preferred Stock dividends, if approved and declared by the Board of Directors, are payable quarterly, in arrears, at a rate per annum equal to (i) 4.700 percent from the original issue date of the Series E Preferred Stock to, but excluding, November 15, 2031, and (ii) for the November 15, 2031 dividend date and during each subsequent ten-year period, the ten-year treasury rate (calculated three business days prior to each reset date as the five-day average of the yields on actively traded U.S. treasury securities adjusted to constant maturity, for five-year maturities) plus 3.064 percent.

The following table summarizes our preferred stock at December 31, 2022:

Series	Description	Amount outstanding (in millions)	Carrying value (in millions)	Shares issued and outstanding	Par Value	Ownership interest per depositary share	Liquidation preference per depositary share	2022 dividends paid per depositary share
Series A	5.250% Fixed-Rate Non-Cumulative Perpetual Preferred Stock	$ 350	$ 340	350,000	$ 0.001	1/40th	$ 25	$ 1.31
Series B	4.100% Fixed-Rate Non-Cumulative Perpetual Preferred Stock	750	739	7,500	0.001	1/100th	1,000	41.00
Series C	4.000% Fixed-Rate Non-Cumulative Perpetual Preferred Stock	1,000	985	10,000	0.001	1/100th	1,000	40.00
Series D	4.250% Fixed-Rate Non-Cumulative Perpetual Preferred Stock	1,000	989	10,000	0.001	1/100th	1,000	44.51
Series E	4.700% Fixed-Rate Non-Cumulative Perpetual Preferred Stock	600	593	6,000	0.001	1/100th	1,000	49.22

5. Share-Based Compensation

Share-based compensation expense was recorded net of estimated forfeitures for 2022, 2021 and 2020, such that expense was recorded only for those share-based awards that are expected to vest. In 2022, 2021 and 2020, we recorded share-based compensation and related benefits as follows:

	Year ended December 31,		
(Dollars in millions)	2022	2021	2020
Share-based compensation expense	$ 183	$ 136	$ 84
Income tax benefit related to share-based compensation expense	(39)	(35)	(20)
Capitalized compensation costs	3	1	1

Equity Incentive Plans

Our 2006 Equity Incentive Plan (the “2006 Incentive Plan”) was adopted in May 2006, and is amended from time to time. The 2006 Incentive Plan provides for the grant of various types of incentive awards, of which the following have been granted: (i) stock options, (ii) restricted stock awards, (iii) restricted stock units (subject to either time-and/or performance-based vesting) and (iv) other cash or stock settled equity awards. Eligible participants in the 2006 Incentive Plan include directors, employees and consultants.

Subject to the provisions of Section 16 of the 2006 Incentive Plan, the maximum aggregate number of shares that may be awarded and sold thereunder is 12,028,505.

Restricted stock awards/units are counted against the available-for-issuance limits of the 2006 Incentive Plan as two shares for every one share awarded. Further, if shares acquired under any such award are forfeited, repurchased by SVB Financial, used to satisfy the tax withholding obligations related to an award or otherwise canceled and would otherwise return to the 2006 Incentive Plan, two times the number of such shares will return to the 2006 Incentive Plan and will again become available for issuance.

Under the terms of the 2006 Incentive Plan, and subject to certain exceptions, awards granted under the plan are subject to a minimum of at least one year of vesting. Generally in practice, restricted stock units vest annually over four years and require continued employment or other service through the vesting period. Performance-based restricted stock awards/units granted to executives generally vest upon meeting certain performance-based objectives over a three year period and, typically, additional time-based vesting follow the end of the performance period, and require continued employment or other service through the vesting date. Stock options typically vest annually over four years, from the grant date based on continued employment or other service, and expire no later than seven years after the grant date. A select number of awards granted to certain employees will continue to vest in accordance with the normal vesting schedule in the event that the employee retires (upon meeting certain age and service criteria) at least six months after the grant date and prior to the end of the vesting period, subject to certain conditions. For accounting purposes, the requisite service period for these awards is reduced on an individual basis, as necessary, to reflect the employee’s individual retirement eligibility date.

The underlying BPFH shares of the legacy Boston Private stock options and restricted stock units were converted into shares of the Company in connection with the Boston Private acquisition on July 1, 2021. Information in this footnote includes the converted legacy Boston Private awards unless otherwise indicated. Upon acquisition, 28,724 options and 67,542 restricted stock units were assumed by the Company from legacy Boston Private plans. All awards assumed from the legacy Boston Private plans will be settled under the respective legacy plans. No future awards will be made under these plans.

We maintain the 1999 ESPP under which participating employees may annually contribute up to 10 percent of their gross compensation (not to exceed $25,000) to purchase shares of our common stock at 85 percent of its fair market value at either the beginning or end of each six-month offering period, whichever price is less. To be eligible to participate in the ESPP, an employee must, among other requirements, be employed by the Company on both the date of offering and date of purchase, and be employed customarily for at least 20 hours per week and at least five months per calendar year. We issued 152,283 shares and received $44 million in cash under the ESPP in 2022. At December 31, 2022, a total of 907,303 shares of our common stock were still available for future issuance under the ESPP.

Unrecognized Compensation Expense

As of December 31, 2022, unrecognized share-based compensation expense was as follows:

(Dollars in millions)	Unrecognized Expense	Weighted Average Expected Recognition Period - in Years
Stock options	$ 13	2.39 years
Restricted stock awards/units	235	2.68 years
Total unrecognized share-based compensation expense	$ 248	

Valuation Assumptions

The fair values of share-based awards for employee stock options and employee stock purchases made under our ESPP were estimated using the Black-Scholes option pricing model. The fair values of restricted stock units were based on our closing stock price on the date of grant. The following weighted average assumptions and fair values were used for our employee stock options and restricted stock units:

Equity Incentive Plan Awards	2022	2021	2020
Weighted average expected term of options - in years	4.7	4.7	4.6
Weighted average expected volatility of the Company's underlying common stock	46.1 %	43.5 %	41.9 %
Risk-free interest rate	3.06	0.85	0.37
Expected dividend yield	—	—	—
Weighted average grant date fair value - stock options	$ 202.81	$ 224.63	$ 66.44
Weighted average grant date fair value - restricted stock units	463.10	554.32	199.51

The following weighted average assumptions and fair values were used for our ESPP:

ESPP	2022	2021	2020
Expected term in years	0.5	0.5	0.5
Weighted average expected volatility of the Company's underlying common stock	43.5 %	36.2 %	51.9 %
Risk-free interest rate	1.04	0.08	1.12
Expected dividend yield	—	—	—
Weighted average grant date fair value	$ 156.24	$ 108.83	$ 69.54

The expected term is based on the implied term of the stock options using factors based on historical exercise behavior. The expected volatilities are based on a blended rate consisting of our historic volatility and our expected volatility over a five-year term which is an indicator of expected volatility and future stock price trends. For 2022, 2021 and 2020, expected volatilities for the ESPP were equal to the historical volatility for the previous six-month periods. The expected risk-free interest rates were based on the yields of U.S. Treasury securities, as reported by the FRB, with maturities equal to the expected terms of the employee stock options.

Share-Based Payment Award Activity

The table below provides stock option information for the year ended December 31, 2022:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life - in Years	Aggregate Intrinsic Value of In-The-Money Options
Outstanding at December 31, 2021	475,626	$ 260.77		
Granted	77,888	477.80		
Exercised	(40,326)	184.75		
Forfeited	(23,546)	385.40		
Outstanding at December 31, 2022	489,642	295.48	3.80	$ 11,968,937
Vested and expected to vest at December 31, 2022	480,972	293.91	3.77	11,851,281
Exercisable at December 31, 2022	300,872	238.23	2.84	9,528,647

The aggregate intrinsic value of outstanding options shown in the table above represents the pre-tax intrinsic value based on our closing stock price of $230.14 as of December 31, 2022.

We expect to satisfy the exercise of stock options by issuing shares under the 2006 Incentive Plan or applicable legacy Boston Private equity plan. All future awards of stock options and restricted stock units will be issued from the 2006 Incentive Plan. At December 31, 2022, 1,636,040 shares were available for future issuance.

The table below provides information for restricted stock units for the year ended December 31, 2022:

	Shares	Weighted Average Grant Date Fair Value
Nonvested at December 31, 2021	1,016,146	$ 328.87
Granted	548,856	463.10
Vested	(390,593)	279.34
Forfeited	(91,957)	379.94
Nonvested at December 31, 2022	1,082,452	405.62

The following table summarizes information regarding stock option and restricted stock unit activity during 2022, 2021 and 2020:

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**
Total intrinsic value of stock options exercised	$ 14	$ 68	$ 25
Total fair value of stock options vested	14	7	6
Total intrinsic value of restricted stock vested	205	164	56
Total fair value of restricted stock vested	126	68	47

6. Variable Interest Entities

Our involvement with VIEs includes our investments in venture capital and private equity funds, debt funds, private and public portfolio companies, qualified affordable housing projects and subordinated debt instruments.

The following table presents the carrying amounts and classification of variable interests in consolidated and unconsolidated VIEs as of December 31, 2022, and December 31, 2021:

(Dollars in millions)	Consolidated VIEs	Unconsolidated VIEs	Maximum Exposure to Loss in Unconsolidated VIEs
December 31, 2022:			
Assets:			
Cash and cash equivalents	$ 20	$ —	$ —
Non-marketable and other equity securities (1)	735	1,457	1,457
AIR and other assets (2)	8	6	—
Total assets	$ 763	$ 1,463	$ 1,457
Liabilities:			
Other liabilities (1)	$ 31	$ 759	$ —
Long term debt (2)	—	91	—
Total liabilities	$ 31	$ 850	$ —
December 31, 2021:			
Assets:			
Cash and cash equivalents	$ 13	$ —	$ —
Non-marketable and other equity securities (1)	768	1,233	1,233
AIR and other assets (2)	31	6	—
Total assets	$ 812	$ 1,239	$ 1,233
Liabilities:			
Other liabilities (1)	$ 18	$ 482	$ —
Long term debt (2)	—	90	—
Total liabilities	$ 18	$ 572	$ —

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(1) Included in our unconsolidated non-marketable and other equity securities portfolio at December 31, 2022, and December 31, 2021, are investments in qualified affordable housing projects of $1.3 billion and $954 million, respectively, and related other liabilities consisting of unfunded commitments of $754 million and $482 million, respectively.

(2) Included in our unconsolidated accrued interest receivable and other assets are investments in statutory trusts for junior subordinated debt and included in long term debt previously issued by Boston Private and assumed in the acquisition of $6 million and $91 million, respectively, at December 31, 2022, and $6 million and $90 million, respectfully, at December 31, 2021.

Non-marketable and other equity securities

Our non-marketable and other equity securities portfolio primarily represents investments in venture capital and private equity funds, SPD-SVB, debt funds, private and public portfolio companies and qualified affordable housing projects. Many of these are investments held by SVB Financial in third-party funds in which we do not have controlling or significant variable interests. These investments represent our unconsolidated VIEs in the table above. Our non-marketable and other equity securities portfolio also includes investments from SVB Capital. SVB Capital is the funds management business of SVB Financial Group, which focuses primarily on venture capital investments. The SVB Capital family of funds is comprised of direct venture funds that invest in companies and funds of funds that invest in other venture capital funds. We have a controlling and significant variable interest in four of these SVB Capital funds and consolidate these funds for financial reporting purposes.

Most investments are generally nonredeemable and distributions are expected to be received through the liquidation of the underlying investments throughout the life of the investment fund. Investments may only be sold or transferred subject to the notice and approval provisions of the underlying investment agreement. Subject to applicable regulatory requirements, including the Volcker Rule, we also make commitments to invest in venture capital and private equity funds. For additional details, see Note 21—"Off-Balance Sheet Arrangements, Guarantees and Other Commitments."

The Bank also has variable interests in low income housing tax credit funds, in connection with fulfilling its responsibilities under the CRA, 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; therefore, these investments are not consolidated. For additional information on our investments in qualified affordable housing projects, see Note 9—"Investment Securities."

As of December 31, 2022, our exposure to loss with respect to the consolidated VIEs is limited to our net assets of $732 million and our exposure to loss for our unconsolidated VIEs is equal to our investment in these assets of $1.5 billion.

Junior subordinated debentures

SVB Financial Group assumed two statutory trusts during the merger with Boston Private. These trusts were for the purpose of issuing trust preferred securities and investing the proceeds in junior subordinated debentures. These statutory trusts created by legacy Boston Private are not consolidated within the financial statements as the Company is not the primary beneficiary of the trusts; however, the total junior subordinated debentures payable to the preferred stockholders of statutory trusts are reported as long-term debt in the financial statements. For additional information, see Note 15—"Short-Term Borrowings and Long-Term Debt."

7. Reserves on Deposit with the Federal Reserve Bank and Federal Bank Stock

The cash balances at the Federal Reserve are classified as cash and cash equivalents. As a member of the FHLB and FRB, we are required to hold shares of FHLB and FRB stock under the Bank's borrowing agreement. FHLB and FRB stock are recorded at cost as a component of other assets, and any cash dividends received are recorded as a component of other noninterest income.

The table below provides information on the shares held at the FHLB and FRB for the years ended and as of December 31, 2022, and December 31, 2021:

(Dollars in millions)	December 31, 2022	December 31, 2021
FHLB stock holdings	$ 418	$ 26
FRB stock holdings	302	81

8. Cash and Cash Equivalents

The following table details our cash and cash equivalents as of December 31, 2022, and December 31, 2021:

(Dollars in millions)	December 31, 2022	December 31, 2021
Cash and due from banks	$ 1,293	$ 2,168
Interest-bearing deposits with the FRB	7,823	5,686
Interest-bearing deposits with other institutions	3,965	5,773
Securities purchased under agreements to resell (1)	722	607
Other short-term investment securities	—	352
Total cash and cash equivalents	$ 13,803	$ 14,586

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(1) At December 31, 2022, and December 31, 2021, securities purchased under agreements to resell were collateralized by U.S. Treasury securities and U.S. agency securities with aggregate fair values of $734 million and $620 million, respectively. None of these securities were sold or repledged as of December 31, 2022, and December 31, 2021.

Additional information regarding our securities purchased under agreements to resell for 2022 and 2021 are as follows:

(Dollars in millions)	Year ended December 31, 2022	Year ended December 31, 2021
Average securities purchased under agreements to resell	$ 290	$ 286
Maximum amount outstanding at any month-end during the year	721	762

9. Investment Securities

Our investment securities portfolio consists of (i) an AFS securities portfolio and a HTM securities portfolio, both of which represent interest-earning investment securities and (ii) a non-marketable and other equity securities portfolio, which primarily represents investments managed as part of our funds management business, investments in qualified affordable housing projects, as well as public equity securities held as a result of equity warrant assets exercised.

AFS Securities

The major components of our AFS investment securities portfolio at December 31, 2022, and 2021 are as follows:

(Dollars in millions)	December 31, 2022 Amortized Cost	Unrealized Gains	Unrealized Losses	Carrying Value
AFS securities, at fair value:				
U.S. Treasury securities	$ 17,206	$ —	$ (1,071)	$ 16,135
U.S. agency debentures	120	—	(19)	101
Foreign government debt securities	1,209	—	(121)	1,088
Residential MBS:				
Agency-issued MBS	7,701	—	(1,098)	6,603
Agency-issued CMO—fixed rate	762	—	(84)	678
Agency-issued CMBS	1,604	—	(140)	1,464
Total AFS securities (1)	$ 28,602	$ —	$ (2,533)	$ 26,069

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(1) Securities pledged as collateral for securities sold under agreements to repurchase totaled $530 million. For additional information, see Note 15—"Short-Term Borrowings and Long-Term Debt."

(Dollars in millions)	December 31, 2021 Amortized Cost	Unrealized Gains	Unrealized Losses	Carrying Value
AFS securities, at fair value:				
U.S. Treasury securities	$ 15,799	$ 121	$ (70)	$ 15,850
U.S. agency debentures	200	—	(4)	196
Foreign government debt securities	61	—	—	61
Residential MBS:				
Agency-issued MBS	8,786	13	(210)	8,589
Agency-issued CMO—fixed rate	988	3	(9)	982
Agency-issued CMBS	1,536	27	(20)	1,543
Total AFS securities (1)	$ 27,370	$ 164	$ (313)	$ 27,221

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(1) Securities pledged as collateral for securities sold under agreements to repurchase totaled $61 million. For additional information, see Note 15—"Short-Term Borrowings and Long-Term Debt."

The following table summarizes sale activity of AFS securities as recorded in the line item "Gains (losses) on investment securities, net," a component of noninterest income:

(Dollars in millions)	Year ended December 31, 2022	2021	2020
Sales proceeds	$ 9,495	$ 1,591	$ 2,654
Net realized gains and losses:			
Gross realized gains	146	31	61
Gross realized losses	(125)	—	—
Net realized gains (losses)	$ 21	$ 31	$ 61

The following tables summarize our AFS securities in an unrealized loss position for which an ACL has not been recorded and summarized into categories of AFS securities that were in an unrealized loss position for less than 12 months, or 12 months or longer, as of December 31, 2022, and December 31, 2021:

	December 31, 2022					
	Less than 12 months		12 months or longer		Total	
(Dollars in millions)	Fair Value of Investments	Unrealized Losses	Fair Value of Investments	Unrealized Losses	Fair Value of Investments	Unrealized Losses
AFS securities, at fair value:						
U.S. Treasury securities	$ 11,946	$ (717)	$ 4,189	$ (354)	$ 16,135	$ (1,071)
U.S. agency debentures	—	—	101	(19)	101	(19)
Foreign government debt securities	1,088	(121)	—	—	1,088	(121)
Residential MBS:						
Agency-issued MBS	1,744	(203)	4,859	(895)	6,603	(1,098)
Agency-issued CMO —fixed rate	136	(11)	542	(73)	678	(84)
Agency-issued CMBS	810	(57)	653	(83)	1,463	(140)
Total AFS securities (1)	$ 15,724	$ (1,109)	$ 10,344	$ (1,424)	$ 26,068	$ (2,533)

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(1) As of December 31, 2022, we identified a total of 810 investments that were in unrealized loss positions with 346 investments in an unrealized loss position for a period of time greater than 12 months. Based on our analysis of the securities in an unrealized loss position as of December 31, 2022, the decline in value is unrelated to credit loss and is related to changes in market interest rates since purchase, and therefore, changes in value for securities are included in other comprehensive income. Market valuations and credit loss analyses on assets in the AFS securities portfolio are reviewed and monitored on a quarterly basis. As of December 31, 2022, we do not intend to sell any of our securities in an unrealized loss position prior to recovery of our amortized cost basis, and it is more likely than not that we will not be required to sell any of our securities prior to recovery of our amortized cost basis. None of the investments in our AFS securities portfolio were past due as of December 31, 2022.

	December 31, 2021					
	Less than 12 months		12 months or longer		Total	
(Dollars in millions)	Fair Value of Investments	Unrealized Losses	Fair Value of Investments	Unrealized Losses	Fair Value of Investments	Unrealized Losses
AFS securities:						
U.S. Treasury securities	$ 7,777	$ (70)	$ —	$ —	$ 7,777	$ (70)
U.S. agency debentures	196	(4)	—	—	196	(4)
Residential MBS:						
Agency-issued MBS	8,280	(210)	—	—	8,280	(210)
Agency-issued CMO —fixed rate	740	(9)	—	—	740	(9)
Agency-issued CMBS	603	(11)	163	(9)	766	(20)
Total AFS securities (1)	$ 17,596	$ (304)	$ 163	$ (9)	$ 17,759	$ (313)

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(1) As of December 31, 2021, we identified a total of 475 investments that were in unrealized loss positions, of which 4 investments are in an unrealized loss position for a period of time greater than 12 months. None of the investments in our AFS securities portfolio were past due as of December 31, 2021.

The following table summarizes the fixed income securities, carried at fair value, classified as AFS as of December 31, 2022, by the remaining contractual principal maturities. For U.S. Treasury securities, U.S. agency debentures and foreign government debt securities, the expected maturity is the actual contractual maturity of the notes. Expected maturities for MBS may differ significantly from their contractual maturities because mortgage borrowers have the right to prepay outstanding loan obligations with or without penalties. MBS classified as AFS typically have original contractual maturities from 10 to 30 years, whereas expected average lives of these securities tend to be significantly shorter and vary based upon structure and prepayments in lower interest rate environments.

	December 31, 2022				
(Dollars in millions)	**Total**	**One Year or Less**	**After One Year to Five Years**	**After Five Years to Ten Years**	**After Ten Years**
U.S. Treasury securities	$ 16,135	$ 983	$ 14,373	$ 779	$ —
U.S. agency debentures	101	—	33	68	—
Foreign government debt securities	1,088	101	52	935	—
Residential MBS:					
Agency-issued MBS	6,603	—	—	43	6,560
Agency-issued CMO—fixed rate	678	—	—	—	678
Agency-issued CMBS	1,464	—	326	1,138	—
Total	$ 26,069	$ 1,084	$ 14,784	$ 2,963	$ 7,238

HTM Securities

During the year ended December 31, 2021, we re-designated certain securities from the classification of AFS to HTM. The securities re-designated consisted of agency-issued CMO's, CMBS', MBS' and U.S. agency debentures with a total carrying value of $8.8 billion. At the time of re-designation the securities included $132 million of pretax net unrealized losses in other comprehensive income and are being amortized over the life of the securities in a manner consistent with the amortization of a premium or discount. Our decision to re-designate the securities was based on our ability and intent to hold these securities to maturity. Factors used in assessing the ability to hold these securities to maturity were future liquidity needs and sources of funding. HTM securities are carried on the balance sheet at amortized cost and the changes in the value of these securities, other than an ACL, are not reported on the financial statements. There were no re-designations during 2022.

The components of our HTM investment securities portfolio at December 31, 2022, and December 31, 2021, are as follows:

	December 31, 2022					
(Dollars in millions)	**Amortized Cost**	**Unrealized Gains**	**Unrealized Losses**	**Fair Value**	**ACL (2)**	**Net Carry Value**
HTM securities, at cost:						
U.S. agency debentures (1)	$ 486	$ —	$ (52)	$ 434	$ —	$ 486
Residential MBS:						
Agency-issued MBS	57,705	—	(9,349)	48,356	—	57,705
Agency-issued CMO—fixed rate	10,461	—	(1,885)	8,576	—	10,461
Agency-issued CMO—variable rate	79	—	(2)	77	—	79
Agency-issued CMBS	14,471	—	(2,494)	11,977	—	14,471
Municipal bonds and notes	7,417	2	(1,269)	6,150	1	7,416
Corporate bonds	708	—	(109)	599	5	703
Total HTM securities	$ 91,327	$ 2	$ (15,160)	$ 76,169	$ 6	$ 91,321

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(1) Consists of pools of Small Business Investment Company debentures issued and guaranteed by the SBA, an independent agency of the United States.
(2) Refer to Note 2—"Summary of Significant Accounting Policies" for more information on our credit loss methodology.

	December 31, 2021					
(Dollars in millions)	**Amortized Cost**	**Unrealized Gains**	**Unrealized Losses**	**Fair Value**	**ACL (2)**	**Net Carry Value**
HTM securities, at amortized cost:						
U.S. agency debentures (1)	$ 609	$ 8	$ (2)	$ 615	$ —	$ 609
Residential MBS:						
Agency-issued MBS	64,439	124	(887)	63,676	—	64,439
Agency-issued CMO—fixed rate	10,226	9	(145)	10,090	—	10,226
Agency-issued CMO—variable rate	100	1	—	101	—	100
Agency-issued CMBS	14,959	39	(277)	14,721	—	14,959
Municipal bonds and notes	7,157	185	(27)	7,315	1	7,156
Corporate bonds	712	2	(5)	709	6	706
Total HTM securities	$ 98,202	$ 368	$ (1,343)	$ 97,227	$ 7	$ 98,195

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(1) Consists of pools of Small Business Investment Company debentures issued and guaranteed by the SBA, an independent agency of the United States.
(2) Refer to Note 2—"Summary of Significant Accounting Policies" for more information on our credit loss methodology.

Allowance for Credit Losses for HTM Securities

For the year ended December 31, 2022, HTM securities beginning ACL balance was $7 million, the reduction of credit losses was $1 million, and the ending ACL balance was $6 million.

For the year ended December 31, 2021 HTM securities beginning ACL balance of less than $1 million, a provision for credit losses of $7 million and an ending ACL balance of $7 million.

Credit Quality Indicators

On a quarterly basis, management monitors the credit quality for HTM securities through the use of standard credit ratings. The following table summarizes our amortized cost of HTM securities aggregated by credit quality indicator at December 31, 2022, and December 31, 2021:

	December 31,	
(Dollars in millions)	**2022**	**2021**
Municipal bonds and notes:		
Aaa	$ 4,263	$ 3,774
Aa1	1,843	2,031
Aa2	1,113	1,154
Aa3	171	172
A1	27	26
Total municipal bonds and notes	$ 7,417	$ 7,157
Corporate bonds:		
Aaa	$ 39	$ 39
Aa2	42	42
Aa3	127	105
A1	280	251
A2	209	264
A3	11	11
Total corporate bonds	$ 708	$ 712

The following table summarizes the remaining contractual principal maturities on fixed income investment securities classified as HTM as of December 31, 2022. For U.S. agency debentures, the expected maturity is the actual contractual maturity of the notes. Expected remaining maturities for certain U.S. agency debentures may occur earlier than their contractual maturities because the note issuers have the right to call outstanding amounts ahead of their contractual maturity. Expected maturities for MBS may differ significantly from their contractual maturities because mortgage borrowers have the right to prepay outstanding loan obligations with or without penalties. MBS classified as HTM typically have original contractual maturities from 10 to 30, years whereas expected average lives of these securities tend to be significantly shorter and vary based upon structure and prepayments in lower interest rate environments; however, we expect to collect substantially all of the recorded investment on these securities.

(Dollars in millions)	Total Net Carry Value	Total Fair Value	One Year or Less Net Carry Value	One Year or Less Fair Value	After One Year to Five Years Net Carry Value	After One Year to Five Years Fair Value	After Five Years to Ten Years Net Carry Value	After Five Years to Ten Years Fair Value	After Ten Years Net Carry Value	After Ten Years Fair Value
	December 31, 2022									
U.S. agency debentures	$ 486	$ 434	$ 1	$ 1	$ 118	$ 111	$ 367	$ 322	$ —	$ —
Residential MBS:										
Agency-issued MBS	57,705	48,356	—	—	25	24	1,066	994	56,614	47,338
Agency-issued CMO—fixed rate	10,461	8,576	—	—	90	86	129	120	10,242	8,370
Agency-issued CMO—variable rate	79	77	—	—	—	—	—	—	79	77
Agency-issued CMBS	14,471	11,977	39	38	153	141	966	810	13,313	10,988
Municipal bonds and notes	7,416	6,150	29	29	235	224	1,362	1,244	5,790	4,653
Corporate bonds	703	599	—	—	115	103	588	496	—	—
Total	$ 91,321	$ 76,169	$ 69	$ 68	$ 736	$ 689	$ 4,478	$ 3,986	$ 86,038	$ 71,426

Non-marketable and Other Equity Securities

The major components of our non-marketable and other equity securities portfolio at December 31, 2022, and December 31, 2021, are as follows:

(Dollars in millions)	December 31, 2022	2021
Non-marketable and other equity securities:		
Non-marketable securities (fair value accounting):		
Consolidated venture capital and private equity fund investments (1)	$ 147	$ 130
Unconsolidated venture capital and private equity fund investments (2)	110	208
Other investments without a readily determinable fair value (3)	183	164
Other equity securities in public companies (fair value accounting) (4)	32	117
Non-marketable securities (equity method accounting) (5):		
Venture capital and private equity fund investments	605	671
Debt funds	5	5
Other investments	276	294
Investments in qualified affordable housing projects, net (6)	1,306	954
Total non-marketable and other equity securities	$ 2,664	$ 2,543

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(1) The following table shows the amounts of venture capital and private equity fund investments held by the following consolidated funds and our ownership percentage of each fund at December 31, 2022, and December 31, 2021, (fair value accounting):

(Dollars in millions)	December 31, 2022 Amount	Ownership %	December 31, 2021 Amount	Ownership %
Strategic Investors Fund, LP	$ 2	12.6 %	$ 2	12.6 %
Capital Preferred Return Fund, LP	28	20.0	61	20.0
Growth Partners, LP	24	33.0	67	33.0
Redwood Evergreen Fund, LP	93	100.0	—	—
Total consolidated venture capital and private equity fund investments	$ 147		$ 130	

(2) The carrying value represents investments in 136 and 150 funds (primarily venture capital funds) at December 31, 2022, and December 31, 2021, respectively, where our ownership interest is typically less than 5% of the voting interests of each such fund and in which we do not have the ability to exercise significant influence over the partnerships operating activities and financial policies. We carry our unconsolidated venture capital and private equity fund investments at fair value based on the fund investments' net asset values per share as obtained from the general partners of the investments. For each fund investment, we adjust the net asset value per share for differences between our measurement date and the date of the fund investment's net asset value by using the most recently available financial information from the investee general partner, for example September 30th for our December 31st consolidated financial statements, adjusted for any contributions paid, distributions received from the investment, and significant fund transactions or market events during the reporting period.

(3) These investments include direct equity investments in private companies. The carrying value is based on the price at which the investment was acquired plus or minus changes resulting from observable price changes in orderly transactions for identical or similar investments. We consider a range of factors when adjusting the fair value of these investments, including, but not limited to, the term and nature of the investment, local market conditions, values for comparable securities, current and projected operating performance, exit strategies, financing transactions subsequent to the acquisition of the investment and a discount for certain investments that have lock-up restrictions or other features that indicate a discount to fair value is warranted.

The following table shows the carrying amount of other investments without a readily determinable fair value at December 31, 2022, and the amounts recognized in earnings for the year ended December 31, 2022, and on a cumulative basis:

(Dollars in millions)	Year ended December 31, 2022	Cumulative Adjustments
Measurement alternative:		
Carrying value at December 31, 2022	$ 183	
Carrying value adjustments:		
Impairment	$ (23)	$ (24)
Upward changes for observable prices	—	52
Downward changes for observable prices	(6)	(11)

(4) Investments classified as other equity securities (fair value accounting) represent shares held in public companies as a result of exercising public equity warrant assets and direct equity investments in public companies held by our consolidated funds. Changes in equity securities measured at fair value are recognized through net income.

(5) The following table shows the carrying value and our ownership percentage of each investment at December 31, 2022, and December 31, 2021 (equity method accounting):

(Dollars in millions)	December 31, 2022 Amount	Ownership %	December 31, 2021 Amount	Ownership %
Venture capital and private equity fund investments:				
Strategic Investors Fund II, LP	$ 2	8.6 %	$ 3	8.6 %
Strategic Investors Fund III, LP	12	5.9	25	5.9
Strategic Investors Fund IV, LP	21	5.0	36	5.0
Strategic Investors Fund V funds	58	Various	87	Various
CP II, LP (i)	1	5.1	2	5.1
Other venture capital and private equity fund investments	511	Various	518	Various
Total venture capital and private equity fund investments	$ 605		$ 671	
Debt funds:				
Gold Hill Capital 2008, LP (ii)	$ 4	15.5 %	$ 4	15.5 %
Other debt funds	1	Various	1	Various
Total debt funds	$ 5		$ 5	
Other investments:				
SPD Silicon Valley Bank Co., Ltd.	$ 146	50.0 %	$ 154	50.0 %
Other investments	130	Various	140	Various
Total other investments	$ 276		$ 294	

(i) Our ownership includes direct ownership interest of 1.3 percent and indirect ownership interest of 3.8 percent through our investments in Strategic Investors Fund II, LP.

(ii) Our ownership includes direct ownership interest of 11.5 percent in the fund and an indirect interest in the fund through our investment in Gold Hill Capital 2008, LLC of 4.0 percent.

(6) The following table presents the balances of our investments in qualified affordable housing projects and related unfunded commitments included as a component of "other liabilities" on our consolidated balance sheets at December 31, 2022, and December 31, 2021:

(Dollars in millions)	December 31, 2022	2021
Investments in qualified affordable housing projects, net	$ 1,306	$ 954
Other liabilities	754	482

The following table presents other information relating to our investments in qualified affordable housing projects for the years ended 2022, 2021 and 2020:

(Dollars in millions)	Year ended December 31, 2022	2021	2020
Tax credits and other tax benefits recognized	$ 99	$ 77	$ 57
Amortization expense included in provision for income taxes (i)	80	64	44

(i) All investments are amortized using the proportional amortization method, and amortization expense is included in the provision for income taxes.

The following table presents the net gains and losses on non-marketable and other equity securities in 2022, 2021 and 2020 as recorded in the line item "Gains (losses) on investment securities, net," a component of noninterest income:

(Dollars in millions)	Year ended December 31, 2022	2021	2020
Net gains (losses) on non-marketable and other equity securities:			
Non-marketable securities (fair value accounting):			
Consolidated venture capital and private equity fund investments	$ (101)	$ 71	$ 32
Unconsolidated venture capital and private equity fund investments	(86)	75	60
Other investments without a readily determinable fair value	(26)	75	—
Other equity securities in public companies (fair value accounting)	(52)	23	105
Non-marketable securities (equity method accounting):			
Venture capital and private equity fund investments	(49)	474	162
Debt funds	(1)	2	—
Other investments	9	10	1
Total net gains (losses) on non-marketable and other equity securities	$ (306)	$ 730	$ 360
Less: realized net gains (losses) on sales of non-marketable and other equity securities	(19)	85	24
Net gains (losses) on non-marketable and other equity securities still held	$ (287)	$ 645	$ 336

10. Loans and Allowance for Credit Losses: Loans and Unfunded Credit Commitments

We serve a variety of commercial clients in the private equity/venture capital, technology, life science/healthcare, commercial real estate and premium wine sectors. Loans made to private equity/venture capital firm clients typically enable them to fund investments prior to their receipt of funds from capital calls and are reported under the Global Fund Banking class of financing receivable below. Our technology clients generally tend to be in the industries of hardware (such as semiconductors, communications, data, storage and electronics), software/internet (such as infrastructure software, applications, software services, digital content and advertising technology) and ERI. Our life science/healthcare clients primarily tend to be in the industries of biotechnology, medical devices, healthcare information technology and healthcare services. Loans to our technology and life science/healthcare clients are reported under the Investor Dependent, Cash Flow Dependent — SLBO and Innovation C&I classes of financing receivable below. Commercial real estate loans are generally acquisition financing for commercial properties such as office buildings, retail properties, apartment buildings and industrial/warehouse space, which moving forward, will predominantly support the innovation economy segments. We also make commercial and industrial loans, such as working capital lines and term loans for equipment and fixed assets, to clients that are not in the technology and life science/healthcare industries, which are reported in the Other C&I class of financing receivable below. Loans to the premium wine industry focus on vineyards and wineries that produce grapes and wines of high quality.

In addition to commercial loans, we make consumer loans through SVB Private and provide real estate secured loans to eligible employees through our EHOP. We also provide community development loans made as part of our responsibilities under the CRA. The majority of these loans are included within the Other and CRE loan class below and are primarily secured by real estate. Additionally, beginning in April 2020, we accepted applications under the PPP administered by the SBA under the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") and originated loans to qualified small businesses. PPP funds under the CARES Act were disbursed throughout 2020 and up to June 30, 2021.

Loan Portfolio Segments and Classes of Financing Receivables

The composition of loans at amortized cost basis broken out by class of financing receivable at December 31, 2022, and December 31, 2021, respectively, is presented in the following table:

(Dollars in millions)	December 31, 2022	2021
Global fund banking	$ 41,269	$ 37,958
Investor dependent:		
Early stage	1,950	1,593
Growth stage	4,763	3,951
Total investor dependent	6,713	5,544
Cash flow dependent — SLBO	1,966	1,798
Innovation C&I	8,609	6,673
Private bank	10,477	8,743
CRE	2,583	2,670
Premium wine	1,158	985
Other C&I	1,019	1,257
Other	433	317
PPP	23	331
Total loans (1) (2) (3)	$ 74,250	$ 66,276
ACL	(636)	(422)
Net loans	$ 73,614	$ 65,854

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(1) Total loans at amortized cost is net of unearned income, deferred fees and costs and net unamortized premiums and discounts of $283 million and $250 million at December 31, 2022, and December 31, 2021, respectively.
(2) Included within our total loan portfolio are credit card loans of $555 million and $583 million at December 31, 2022, and December 31, 2021, respectively.
(3) Included within our total loan portfolio are construction loans of $539 million and $367 million at December 31, 2022, and December 31, 2021, respectively.

Credit Quality Indicators

For each individual client, we establish an internal credit risk rating for that loan, which is used for assessing and monitoring credit risk as well as performance of the loan and the overall portfolio. Our internal credit risk ratings are also used to summarize the risk of loss due to failure by an individual borrower to repay the loan. For our internal credit risk ratings, each individual loan is given a risk rating of 1 through 10. Loans risk-rated 1 through 4 are performing loans and translate to an internal rating of "Pass," with loans risk-rated 1 being cash secured. Loans risk-rated 5 through 7 are performing loans; however, we consider them as demonstrating higher risk, which requires more frequent review of the individual exposures and translate to an internal rating of "Criticized." All of our nonaccrual loans are risk-rated 8 or 9 and are classified with the internal rating of "Nonperforming." Loans rated 10 are charged-off and are not included as part of our loan portfolio balance. We review our credit quality indicators on a quarterly basis for performance and appropriateness of risk ratings as part of our evaluation process for our ACL for loans.

The following tables summarize the credit quality indicators, broken out by class of financing receivable and vintage year, as of December 31, 2022, and December 31, 2021.

	Term Loans by Origination Year									
December 31, 2022 (Dollars in millions)	2022	2021	2020	2019	2018	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Unallocated (1)	Total
Global fund banking:										
Risk rating:										
Pass	$ 543	$ 90	$ 55	$ 29	$ 1	$ 5	$ 40,539	$ 3	$ —	$ 41,265
Criticized	—	—	—	—	—	—	4	—	—	4
Nonperforming	—	—	—	—	—	—	—	—	—	—
Total global fund banking	$ 543	$ 90	$ 55	$ 29	$ 1	$ 5	$ 40,543	$ 3	$ —	$ 41,269
Investor dependent:										
Early stage:										
Risk rating:										
Pass	$ 910	$ 480	$ 44	$ 12	$ 1	$ —	$ 182	$ —	$ —	$ 1,629
Criticized	130	120	18	5	—	—	31	—	—	304
Nonperforming	5	7	1	2	—	—	2	—	—	17
Total early stage	$ 1,045	$ 607	$ 63	$ 19	$ 1	$ —	$ 215	$ —	$ —	$ 1,950
Growth stage:										
Risk rating:										
Pass	$ 2,358	$ 1,175	$ 283	$ 34	$ 8	$ 2	$ 300	$ 5	$ —	$ 4,165
Criticized	186	233	81	5	3	3	32	—	—	543
Nonperforming	20	31	—	—	—	—	4	—	—	55
Total growth stage	$ 2,564	$ 1,439	$ 364	$ 39	$ 11	$ 5	$ 336	$ 5	$ —	$ 4,763
Total investor dependent	$ 3,609	$ 2,046	$ 427	$ 58	$ 12	$ 5	$ 551	$ 5	$ —	$ 6,713
Cash flow dependent — SLBO:										
Risk rating:										
Pass	$ 930	$ 550	$ 169	$ 162	$ 14	$ 19	$ 37	$ —	$ —	$ 1,881
Criticized	17	34	16	—	2	11	5	—	—	85

Nonperforming	—	—	—	—	—	—	—	—	—	—
Total cash flow dependent — SLBO	$ 947	$ 584	$ 185	$ 162	$ 16	$ 30	$ 42	$ —	$ —	$ 1,966
Innovation C&I:										
Risk rating:										
Pass	$ 2,554	$ 1,309	$ 495	$ 157	$ 5	$ 35	$ 3,152	$ —	$ —	$ 7,707
Criticized	65	224	168	33	11	—	373	—	—	874
Nonperforming	7	—	—	—	—	—	21	—	—	28
Total innovation C&I	$ 2,626	$ 1,533	$ 663	$ 190	$ 16	$ 35	$ 3,546	$ —	$ —	$ 8,609
Private bank:										
Risk rating:										
Pass	$ 2,782	$ 2,754	$ 1,718	$ 912	$ 427	$ 978	$ 832	$ 12	$ —	$ 10,415
Criticized	—	16	—	2	1	14	4	—	—	37
Nonperforming	—	—	1	2	1	20	1	—	—	25
Total private bank	$ 2,782	$ 2,770	$ 1,719	$ 916	$ 429	$ 1,012	$ 837	$ 12	$ —	$ 10,477
CRE										
Risk rating:										
Pass	$ 519	$ 276	$ 193	$ 211	$ 144	$ 802	$ 102	$ 5	$ —	$ 2,252
Criticized	—	11	39	133	14	112	17	—	—	326
Nonperforming	—	—	—	5	—	—	—	—	—	5
Total CRE	$ 519	$ 287	$ 232	$ 349	$ 158	$ 914	$ 119	$ 5	$ —	$ 2,583
Premium wine:										
Risk rating:										
Pass	$ 309	$ 209	$ 90	$ 135	$ 43	$ 135	$ 163	$ 33	$ —	$ 1,117
Criticized	1	5	—	7	9	9	10	—	—	41
Nonperforming	—	—	—	—	—	—	—	—	—	—
Total premium wine	$ 310	$ 214	$ 90	$ 142	$ 52	$ 144	$ 173	$ 33	$ —	$ 1,158
Other C&I										

	Term Loans by Origination Year									
December 31, 2022 (Dollars in millions)	2022	2021	2020	2019	2018	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Unallocated (1)	Total
Risk rating:										
Pass	$ 34	$ 141	$ 156	$ 64	$ 81	$ 284	$ 207	$ 10	$ —	$ 977
Criticized	2	—	1	4	1	22	9	1	—	40
Nonperforming	—	—	1	—	—	1	—	—	—	2
Total other C&I	$ 36	$ 141	$ 158	$ 68	$ 82	$ 307	$ 216	$ 11	$ —	$ 1,019
Other:										
Risk rating:										
Pass	$ 114	$ 189	$ 148	$ 29	$ —	$ —	$ 9	$ 2	$ (75)	$ 416
Criticized	—	7	2	8	—	—	—	—	—	17
Nonperforming	—	—	—	—	—	—	—	—	—	—
Total other	$ 114	$ 196	$ 150	$ 37	$ —	$ —	$ 9	$ 2	$ (75)	$ 433
PPP:										
Risk rating:										
Pass	$ —	$ 12	$ 3	$ —	$ —	$ —	$ —	$ —	$ —	$ 15
Criticized	—	3	5	—	—	—	—	—	—	8
Nonperforming	—	—	—	—	—	—	—	—	—	—
Total PPP	$ —	$ 15	$ 8	$ —	$ —	$ —	$ —	$ —	$ —	$ 23
Total loans	$ 11,486	$ 7,876	$ 3,687	$ 1,951	$ 766	$ 2,452	$ 46,036	$ 71	$ (75)	$ 74,250

(1) These amounts consist of fees and clearing items that have not yet been allocated at the loan level.

	Term Loans by Origination Year									
December 31, 2021 (Dollars in millions)	2021	2020	2019	2018	2017	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Unallocated (1)	Total
Global fund banking:										
Risk rating:										
Pass	$ 764	$ 115	$ 36	$ 6	$ 8	$ 4	$ 36,955	$ —	$ —	$ 37,888
Criticized	50	18	—	—	—	1	1	—	—	70
Nonperforming	—	—	—	—	—	—	—	—	—	—
Total global fund banking	$ 814	$ 133	$ 36	$ 6	$ 8	$ 5	$ 36,956	$ —	$ —	$ 37,958
Investor dependent:										
Early stage:										
Risk rating:										
Pass	$ 754	$ 287	$ 122	$ 26	$ 6	$ 1	$ 171	$ —	$ —	$ 1,367
Criticized	64	87	30	5	—	—	29	—	—	215
Nonperforming	2	5	3	—	—	—	1	—	—	11
Total early stage	$ 820	$ 379	$ 155	$ 31	$ 6	$ 1	$ 201	$ —	$ —	$ 1,593
Growth stage:										
Risk rating:										
Pass	$ 2,072	$ 910	$ 265	$ 78	$ 14	$ 1	$ 286	$ 5	$ —	$ 3,631
Criticized	159	85	27	6	3	—	34	—	—	314
Nonperforming	2	—	1	2	—	—	1	—	—	6
Total growth stage	$ 2,233	$ 995	$ 293	$ 86	$ 17	$ 1	$ 321	$ 5	$ —	$ 3,951
Total investor dependent	$ 3,053	$ 1,374	$ 448	$ 117	$ 23	$ 2	$ 522	$ 5	$ —	$ 5,544
Cash flow dependent – SLBO:										
Risk rating:										
Pass	$ 875	$ 384	$ 252	$ 72	$ 76	$ 2	$ 35	$ —	$ —	$ 1,696
Criticized	—	—	20	25	—	13	10	—	—	68
Nonperforming	—	—	12	10	7	—	5	—	—	34
Total cash flow dependent — SLBO	$ 875	$ 384	$ 284	$ 107	$ 83	$ 15	$ 50	$ —	$ —	$ 1,798
Innovation C&I:										
Risk rating:										
Pass	$ 2,230	$ 1,058	$ 288	$ 123	$ 58	$ —	$ 2,411	$ —	$ —	$ 6,168

	Term Loans by Origination Year									
December 31, 2021 (Dollars in millions)	2021	2020	2019	2018	2017	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Unallocated (1)	Total
Criticized	64	130	62	12	—	—	236	—	—	504
Nonperforming	—	—	—	—	—	—	1	—	—	1
Total Innovation C&I	$ 2,294	$ 1,188	$ 350	$ 135	$ 58	$ —	$ 2,648	$ —	$ —	$ 6,673
Private bank:										
Risk rating:										
Pass	$ 2,952	$ 2,015	$ 1,122	$ 520	$ 432	$ 952	$ 705	$ 8	$ —	$ 8,706
Criticized	—	—	2	—	2	9	3	—	—	16
Nonperforming	—	—	2	9	—	8	2	—	—	21
Total private bank	$ 2,952	$ 2,015	$ 1,126	$ 529	$ 434	$ 969	$ 710	$ 8	$ —	$ 8,743
CRE:										
Risk rating:										
Pass	$ 326	$ 215	$ 344	$ 155	$ 236	$ 868	$ 110	$ 2	$ —	$ 2,256
Criticized	3	39	114	37	47	139	18	12	—	409
Nonperforming	—	—	5	—	—	—	—	—	—	5
Total CRE	$ 329	$ 254	$ 463	$ 192	$ 283	$ 1,007	$ 128	$ 14	$ —	$ 2,670
Premium wine:										
Risk rating:										
Pass	$ 217	$ 112	$ 156	$ 69	$ 71	$ 162	$ 125	$ 34	$ —	$ 946
Criticized	1	7	11	9	—	—	11	—	—	39
Nonperforming	—	—	—	—	—	—	—	—	—	—
Total Premium wine	$ 218	$ 119	$ 167	$ 78	$ 71	$ 162	$ 136	$ 34	$ —	$ 985
Other C&I:										
Risk rating:										
Pass	$ 181	$ 175	$ 82	$ 86	$ 28	$ 301	$ 350	$ 11	$ —	$ 1,214
Criticized	5	6	6	7	2	—	8	5	—	39
Nonperforming	—	—	—	2	—	1	1	—	—	4
Total other C&I	$ 186	$ 181	$ 88	$ 95	$ 30	$ 302	$ 359	$ 16	$ —	$ 1,257
Other:										
Risk rating:										
Pass	$ 61	$ 144	$ 82	$ 20	$ 14	$ —	$ 7	$ —	$ (21)	$ 307
Criticized	—	7	1	—	2	—	—	—	—	10
Nonperforming	—	—	—	—	—	—	—	—	—	—
Total other	$ 61	$ 151	$ 83	$ 20	$ 16	$ —	$ 7	$ —	$ (21)	$ 317
PPP:										

Risk rating:										
Pass	$ 226	$ 72	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 298
Criticized	22	9	—	—	—	—	—	—	—	31
Nonperforming	2	—	—	—	—	—	—	—	—	2
Total PPP	$ 250	$ 81	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 331
Total loans	$ 11,032	$ 5,880	$ 3,045	$ 1,279	$ 1,006	$ 2,462	$ 41,516	$ 77	$ (21)	$ 66,276

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(1) These amounts consist of fees and clearing items that have not yet been allocated at the loan level.

Allowance for Credit Losses: Loans

As of December 31, 2022, the ACL for loans increased by $214 million from December 31, 2021, driven primarily by loan growth and the continued deterioration in projected economic conditions.

The Moody's Analytics' December 2022 forecast was utilized in our quantitative model for the ACL as of December 31, 2022. The forecast assumptions reflected deterioration in the gross domestic product growth rate and unemployment rate, as well as a projected shrinkage of the housing price index. The overall impact of these assumptions was a worse forecast than that used at December 31, 2021. We determined the forecast to be representative of our outlook for the economy given the available information at year end.

We do not estimate expected credit losses on AIR on loans, as AIR is reversed or written off when the full collection of the AIR related to a loan becomes doubtful. AIR on loans totaled $402 million as of December 31, 2022, and $171 million as of December 31, 2021, and is reported in "Accrued interest receivable and other assets" in our consolidated balance sheets.

The following tables summarize the activity relating to our ACL for loans for 2022, 2021 and 2020 broken out by portfolio segment:

Year ended December 31, 2022 (Dollars in millions)	Beginning Balance December 31, 2021	Charge-offs	Recoveries	Provision (Reduction) for Loans	Foreign Currency Translation Adjustments	Ending Balance December 31, 2022
Global fund banking	$ 67	$ —	$ 7	$ 36	$ —	$ 110
Investor dependent	146	(79)	20	184	2	$ 273
Cash flow dependent and Innovation C&I	118	(19)	1	55	—	$ 155
Private bank	33	—	2	15	—	$ 50
CRE	36	—	—	(11)	—	$ 25
Other C&I	14	(4)	1	2	—	$ 13
Premium wine and other	8	(1)	1	7	(5)	$ 10
Total ACL	$ 422	$ (103)	$ 32	$ 288	$ (3)	$ 636

Year ended December 31, 2021 (Dollars in millions)	Beginning Balance December 31, 2020	Initial Allowance on PCD Loans	Charge-offs	Recoveries	Provision (Reduction) for Loans (1)	Ending Balance December 31, 2021
Global fund banking (2)	$ 46	$ —	$ (80)	$ —	$ 101	$ 67
Investor dependent	213	—	(46)	18	(39)	146
Cash flow dependent and Innovation C&I	125	—	(8)	6	(5)	118
Private bank	53	1	(3)	—	(18)	33
CRE	—	17	—	—	19	36
Other C&I	—	4	—	—	10	14
Premium wine and other	9	—	(1)	—	—	8
PPP	2	—	—	—	(2)	—
Total ACL	$ 448	$ 22	$ (138)	$ 24	$ 66	$ 422

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(1) The provision for loans for the year ended December 31, 2021, includes a post-combination initial provision of $44 million related to non-PCD loans from the Boston Private acquisition.
(2) Global fund banking activity for the year ended December 31, 2021, includes the impact of an $80 million charge-off related to fraudulent activity on one loan as disclosed in previous filings.

Year ended December 31, 2020 (Dollars in millions)	Beginning Balance at December 31, 2019	Impact of Adopting ASC 326	Charge-offs	Recoveries	Provision (Reduction) for Loans	Foreign Currency Translation Adjustments	Ending Balance at December 31, 2020
Global fund banking	$ 107	$ (70)	$ —	$ —	$ 9	$ —	$ 46
Investor dependent	82	72	(89)	25	125	(2)	213
Cash flow dependent and Innovation C&I	81	(1)	(11)	3	53	—	125
Private bank	22	12	(2)	—	21	—	53
Premium wine and other	13	12	(1)	1	(21)	5	9
PPP	—	—	—	—	2	—	2
Total ACL	$ 305	$ 25	$ (103)	$ 29	$ 189	$ 3	$ 448

The following table summarizes the aging of our loans broken out by class of financing receivables as of December 31, 2022, and December 31, 2021:

(Dollars in millions)	30 - 59 Days Past Due	60 - 89 Days Past Due	90 or More Days Past Due	Total Past Due	Current	Total	90 Days or More Past Due, Still Accruing Interest
December 31, 2022:							
Global fund banking	$ 20	$ —	$ —	$ 20	$ 41,249	$ 41,269	$ —
Investor dependent:							
Early stage	11	13	2	26	1,924	1,950	—
Growth stage	26	—	3	29	4,734	4,763	—
Total investor dependent	37	13	5	55	6,658	6,713	—
Cash flow dependent - SLBO	—	—	—	—	1,966	1,966	—
Innovation C&I	2	1	—	3	8,606	8,609	—
Private bank	22	2	17	41	10,436	10,477	1
CRE	10	1	—	11	2,572	2,583	—
Premium wine	3	—	—	3	1,155	1,158	—
Other C&I	2	—	2	4	1,015	1,019	—
Other	—	—	—	—	433	433	—
PPP	—	—	5	5	18	23	4
Total loans (1)	$ 96	$ 17	$ 29	$ 142	$ 74,108	$ 74,250	$ 5
December 31, 2021:							
Global fund banking	$ —	$ —	$ —	$ —	$ 37,958	$ 37,958	$ —
Investor dependent:							
Early stage	6	5	—	11	1,582	1,593	—
Growth stage	16	—	—	16	3,935	3,951	—
Total investor dependent	22	5	—	27	5,517	5,544	—
Cash flow dependent - SLBO	—	—	—	—	1,798	1,798	—
Innovation C&I	7	—	7	14	6,659	6,673	7
Private bank	28	1	12	41	8,702	8,743	—
CRE	1	—	—	1	2,669	2,670	—
Premium wine	3	—	—	3	982	985	—
Other C&I	1	2	1	4	1,253	1,257	—
Other	—	—	—	—	317	317	—
PPP	1	—	—	1	330	331	—
Total loans	$ 63	$ 8	$ 20	$ 91	$ 66,185	$ 66,276	$ 7

Nonaccrual Loans

The following table summarizes our nonaccrual loans with no ACL at December 31, 2022, and December 31, 2021:

	December 31, 2022		December 31, 2021	
(Dollars in millions)	Nonaccrual Loans	Nonaccrual Loans with no ACL	Nonaccrual Loans	Nonaccrual Loans with no ACL
Investor dependent:				
Early stage	$ 17	$ —	$ 11	$ —
Growth stage	55	3	6	—
Total investor dependent	72	3	17	—
Cash flow dependent - SLBO	—	—	34	—
Innovation C&I	28	—	1	1
Private bank	25	7	21	8
CRE	5	—	5	—
Other C&I	2	1	4	—
PPP	—	—	2	—
Total nonaccrual loans	$ 132	$ 11	$ 84	$ 9

Troubled Debt Restructurings

As of December 31, 2022, we had 36 TDRs with a total carrying value of $90 million where concessions have been granted to borrowers experiencing financial difficulties in an attempt to maximize collection. We had no unfunded commitments available for funding to the clients associated with these TDRs as of December 31, 2022. As of December 31, 2021, we had 62 TDRs with a total carrying value of $96 million where concessions have been granted to borrowers experiencing financial difficulties in an attempt to maximize collection. There were no unfunded commitments available for funding to the clients associated with these TDRs as of December 31, 2021.

The following table summarizes our loans modified in TDRs, broken out by class of financing receivables, as of December 31, 2022 and December 31, 2021:

(Dollars in millions)	December 31, 2022	December 31, 2021
Loans modified in TDRs:		
Investor dependent:		
Early stage	$ 1	$ 12
Growth stage	30	3
Total investor dependent	31	15
Cash flow dependent - SLBO	—	34
Innovation C&I	1	—
Private bank	24	12
CRE	33	33
Other C&I	1	2
Total loans modified in TDRs	$ 90	$ 96

The following table summarizes the recorded investment in loans modified in TDRs, broken out by class of financing receivables, for modifications made during 2022, 2021 and 2020:

	Year ended December 31,		
(Dollars in millions)	2022	2021	2020
Loans modified in TDRs during the period:			
Investor dependent:			
Early stage	$ —	$ 12	$ 6
Growth stage	30	—	26
Total investor dependent	30	12	32
Cash flow dependent - SLBO	—	12	22
Innovation C&I	1	—	1
Private bank	17	4	—
CRE	5	29	—
Premium wine	—	—	1
Total loans modified in TDRs during the period (1)	$ 53	$ 57	$ 56

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(1) There were $110 million, $6 million and $31 million of partial charge-offs during 2022, 2021 and 2020, respectively.

During 2022, $52 million of new TDRs were modified through payment deferrals granted to our clients and $1 million were modified through interest rate reductions. During 2021, $31 million of new TDRs were modified through payment deferrals granted to our clients, $2 million were modified through interest rate reductions, $2 million were modified through settlements, and $22 million were modified through a combination of the above. During 2020, $55 million of new TDRs were modified through payment deferrals, and $1 million were modified through partial forgiveness of principal.

Of loans modified in TDRs within the previous 12 months, $1 million in Investor Dependent - Early Stage and $1 million in Innovation C&I defaulted on the modified terms during the year ended December 31, 2022. There were no defaults of loans modified in TDRs during the year ended December 31, 2021. There were $1 million in defaults on TDRs during the year ended December 31, 2020 in Premium Wine.

Charge-offs and defaults on previously restructured loans are evaluated to determine the impact to the ACL for loans, if any. The evaluation of these defaults may impact the assumptions used in calculating the reserve on other TDRs and nonaccrual loans as well as management's overall outlook of macroeconomic factors that affect the reserve on the loan portfolio as a whole. After evaluating the charge-offs and defaults experienced on our TDRs, we determined that no change to our reserving methodology for TDRs was necessary to determine the ACL for loans as of December 31, 2022.

ACL: Unfunded Credit Commitments

We maintain a separate ACL for unfunded credit commitments that is determined using a methodology that is inherently similar to the methodology used for calculating the ACL for loans. At December 31, 2022, our ACL estimates utilized the Moody's economic forecasts from December 2022 as mentioned above. The ACL for unfunded commitments increased by $132 million from prior year, driven primarily by continued growth in our outstanding commitments, as well as the same deterioration in projected economic conditions described above.

The following table summarizes the activity relating to our ACL for unfunded credit commitments for 2022, 2021 and 2020:

	December 31,		
(Dollars in millions)	2022	2021	2020
ACL: unfunded credit commitments, beginning balance	$ 171	$ 121	$ 68
Impact of adopting ASC 326	—	—	23
Provision for credit losses	133	50	30
Foreign currency translation adjustments	(1)	—	—
ACL: unfunded credit commitments, ending balance (1)	$ 303	$ 171	$ 121

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(1) The "ACL: unfunded credit commitments" is included as a component of "other liabilities" on our consolidated balance sheets. See Note 21—"Off-Balance Sheet Arrangements, Guarantees and Other Commitments" for additional disclosures related to our commitments to extend credit.

11. Premises and Equipment

Premises and equipment at December 31, 2022, and December 31, 2021, consisted of the following:

	December 31,	
(Dollars in millions)	2022	2021
Computer software	$ 581	$ 408
Computer hardware	116	102
Leasehold improvements	164	149
Furniture and equipment	59	53
Building	3	3
Total	923	715
Accumulated depreciation and amortization	(529)	(445)
Premises and equipment, net	$ 394	$ 270

Depreciation and amortization expense for premises and equipment was $91 million, $64 million and $53 million for the years ended 2022, 2021 and 2020, respectively.

12. Leases

We have operating leases for our corporate offices and certain equipment utilized at those properties. We are obligated under a number of noncancellable operating leases for premises and equipment that expire at various dates, through 2057, and in most instances, include options to renew or extend at market rates and terms. Such leases may provide for periodic adjustments of rentals during the term of the lease based on changes in various economic indicators.

Total recorded balances for the lease assets and liabilities are as follows:

	December 31,	
(Dollars in millions)	2022	2021
Assets:		
Right-of-use assets - operating leases	$ 335	$ 313
Liabilities:		
Lease liabilities - operating leases	413	388

The components of our lease cost and supplemental cash flow information related to leases for the years ended 2022, 2021 and 2020 were as follows:

	Year ended December 31,		
(Dollars in millions)	2022	2021	2020
Operating lease cost	$ 68	$ 90	$ 69
Short-term lease cost	—	—	1
Variable lease cost	6	4	4
Less: sublease income	(3)	(4)	(2)
Total lease expense, net	$ 71	$ 90	$ 72
Supplemental cash flows information:			
Cash paid for amounts included in the measurement of lease liabilities:			
Cash paid for operating leases	$ 81	$ 66	$ 50
Noncash items during the period:			
Lease obligations in exchange for obtaining right-of-use assets:			
Operating leases	$ 88	$ 187	$ 75

The table below presents additional information related to the Company's leases as of December 31, 2022 and December 31, 2021:

	December 31,	
	2022	2021
Weighted-average remaining term (in years) - operating leases	7.70	7.29
Weighted-average discount rate - operating leases (1)	2.25 %	1.83 %

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(1) The incremental borrowing rate used to calculate the lease liability was determined based on the facts and circumstances of the economic environment and the Company's credit standing as of the effective date of the respective leases. Additionally, the total lease term and total lease payments were also considered in determining the rate. Based on these considerations, the Company identified credit terms available under its existing credit lines which represent a collateralized borrowing rate that has varying credit terms that could be matched to total lease terms and total lease payments in ultimately determining the implied borrowing rate in each lease contract.

The following table presents our undiscounted future cash payments for our operating lease liabilities as of December 31, 2022:

Years ended December 31, (Dollars in millions)	Operating Leases
2023	$ 85
2024	76
2025	64
2026	49
2027	39
2028 and thereafter	146
Total lease payments	$ 459
Less: imputed interest	(46)
Total lease liabilities	$ 413

Lease Exits

Following the acquisition of Boston Private, we decided to exit various leased office locations during 2021 and market these spaces for sublease. When a company plans to utilize an ROU asset for less than it was initially intended, ASC 842, *Leases*, requires an evaluation for impairment and disclosure in accordance with ASC 360-10-45-2, *Impairment or Disposal of Long-Lived Assets*. We have recognized $3 million and $39 million of impairment charges related to these leased office for the years ended December 31, 2022 and December 31, 2021, respectively, and have included impairment and lease exit related expenses in the "Merger-related charges" in our Consolidated Statement of Income.

13. Goodwill and Other Intangible Assets

Goodwill

Goodwill was $375 million at both December 31, 2022 and December 31, 2021. The changes in goodwill were as follows for the years ended December 31, 2022 and December 31, 2021:

(Dollars in millions)	Goodwill
Beginning balance at December 31, 2020	$ 143
Acquisitions (1)	232
Ending balance at December 31, 2021	$ 375
Acquisitions	—
Impairment	—
Ending balance at December 31, 2022	$ 375

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(1) Goodwill was recognized for the acquisitions of Boston Private effective July 1, 2021 and MoffettNathanson LLC effective December 10, 2021.

During 2022, we completed our annual goodwill impairment test as of October 1, 2022, utilizing information as of September 30, 2022, and as a result, we determined there was no impairment as of December 31, 2022. For more information on our annual impairment policies, see Note 2—"Summary of Significant Accounting Policies."

Other Intangible Assets

The following table presents the gross carrying amount and accumulated amortization of other intangible assets as of December 31, 2022, and December 31, 2021:

	December 31, 2022			December 31, 2021		
(Dollars in millions)	Gross Amount	Accumulated Amortization	Net Carrying Amount	Gross Amount	Accumulated Amortization	Net Carrying Amount
Other intangible assets:						
Customer relationships	$ 135	$ 30	$ 105	$ 135	$ 16	$ 119
Other	57	26	31	57	16	41
Total other intangible assets, net	$ 192	$ 56	$ 136	$ 192	$ 32	$ 160

Amortization expense recognized on intangible assets was $24 million, $15 million and $5 million for the years ended 2022, 2021 and 2020. Assuming no future impairments of other intangible assets or additional acquisitions or dispositions, the following table presents the Company's future expected amortization expense for other intangible assets that will continue to be amortized as of December 31, 2022:

Years ended December 31, (Dollars in millions)	Other Intangible Assets
2023	$ 22
2024	20
2025	17
2026	15
2027	12
2028 and thereafter	50
Total future amortization expense	$ 136

14. Deposits

The following table presents the composition of our deposits as of December 31, 2022, and December 31, 2021:

	December 31,	
(Dollars in millions)	2022	2021
Noninterest-bearing demand	$ 80,753	$ 125,851
Interest-bearing checking and savings accounts	32,916	5,106
Money market	52,032	54,842
Money market deposits in foreign offices	51	696
Sweep deposits in foreign offices	664	969
Time	6,693	1,739
Total deposits	$ 173,109	$ 189,203

The aggregate amount of time deposit accounts individually equal to or greater than $250,000 totaled $6.6 billion and $1.6 billion at December 31, 2022, and December 31, 2021, respectively. At December 31, 2022, time deposit accounts individually equal to or greater than $250,000 totaling $6.6 billion were scheduled to mature within one year.

15. Short-Term Borrowings and Long-Term Debt

The following table represents outstanding short-term borrowings and long-term debt as of December 31, 2022, and December 31, 2021:

			Carrying Value	
(Dollars in millions)	Maturity	Principal value at December 31, 2022	December 31, 2022	December 31, 2021
Short-term borrowings:				
Securities sold under agreements to repurchase	(1)	$ 525	$ 525	$ 61
Other short-term borrowings	(2)	40	40	10
FHLB advances		13,000	13,000	—
Total short-term borrowings			$ 13,565	$ 71
Long-term debt:				
3.50% Senior Notes	January 29, 2025	350	349	$ 349
3.125% Senior Notes	June 5, 2030	500	496	496
1.800% Senior Notes	February 2, 2031	500	495	494
2.100% Senior Notes	May 15, 2028	500	497	496
1.800% Senior Notes	October 28, 2026	650	646	645
4.345% Senior Fixed Rate/Floating Rate Notes	April 29, 2028	350	348	—
4.570% Senior Fixed Rate/Floating Rate Notes	April 29, 2033	450	448	—
Junior subordinated debentures	Various	100	91	90
FHLB advances	Various	2,000	2,000	—
Total long-term debt			$ 5,370	$ 2,570

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(1) Securities sold under repurchase agreements are effectively short-term borrowings collateralized by U.S. Treasury securities, U.S. agency securities and foreign government debt securities and contracted on an overnight basis. Our total unused and available borrowing capacity under our master repurchase agreements with various financial institutions totaled $35.0 billion at December 31, 2022.

(2) Represents cash collateral received from certain counterparties in excess of net derivative receivables balances.

The aggregate annual maturities of long-term debt obligations as of December 31, 2022, are as follows:

Year ended December 31, (Dollars in millions)		Amount
2023	$	2,000
2024		—
2025		349
2026		646
2027		—
2028 and thereafter		2,375
Total	$	5,370

Interest expense related to short-term borrowings and long-term debt was $326 million, $48 million and $25 million in 2022, 2021 and 2020, respectively. The weighted average interest rate associated with our short-term borrowings was 2.9 percent as of December 31, 2022, and 0.2 percent as of December 31, 2021.

Short-term and Long-term Federal Credit Facilities

We have certain facilities in place to enable us to access short- and long-term borrowings on a secured and unsecured basis. Our secured facilities include collateral pledged to the FHLB of San Francisco and the discount window at the FRB (using both fixed income securities and loans as collateral). Our unsecured facility consists of our uncommitted federal funds lines. As of December 31, 2022, the Company had short-term FHLB advances totaling $13.0 billion and long-term FHLB advances of $2.0 billion, which consists of two $1 billion borrowings with maturities on November 1 and 2, 2023. The long-term borrowings pay monthly for loan backed collateral and semi-annually for securities backed collateral, with a net weighted average fixed rate of 4.69%. Collateral pledged to the FHLB of San Francisco was comprised primarily of fixed income investment securities and loans with a carrying value of $44.9 billion and $7.3 billion at December 31, 2022, and December 31, 2021, of which $25.9 billion and $6.3 billion was available to support additional borrowings at December 31, 2022, and December 31, 2021, respectively. As of December 31, 2022, collateral pledged to the discount window at the FRB was comprised of fixed income investment securities and had a carrying value of $5.3 billion, all of which was unused and available

to support additional borrowings. Our total unused and available borrowing capacity for our uncommitted federal funds lines totaled $3.2 billion at December 31, 2022.

Long-term Debt

3.50% Senior Notes

In January 2015, SVB Financial issued $350 million of 3.50% Senior Notes due in January 2025 ("3.50% Senior Notes"). We received net proceeds of approximately $346 million after deducting underwriting discounts and commissions and issuance costs. The balance of our 3.50% Senior Notes at December 31, 2022, was $349 million, which is reflective of $1 million of debt issuance costs and a discount of less than $1 million.

3.125% Senior Notes

On June 5, 2020, the Company issued $500 million of 3.125% Senior Notes due in June 2030 ("3.125% Senior Notes"). The 3.125% Senior Notes may be redeemed by us, at our option, at any time prior to March 5, 2030, at a redemption price equal to the full aggregate principal amount plus a "make-whole" premium payment. We received net proceeds from this offering of approximately $496 million after deducting underwriting discounts and commissions and issuance costs. The balance of our 3.125% Senior Notes at December 31, 2022, was $496 million, which is reflective of $4 million of debt issuance costs and a discount of less than $1 million.

1.800% Senior Notes

On February 2, 2021 the Company issued $500 million of 1.800% Senior Notes due February 2031 ("1.800% Senior Notes due 2031"), with interest payments starting August 2, 2021, and payable on February 2 and August 2 of each year. The notes are senior unsecured obligations of SVB Financial Group and rank equally with all of our other unsecured and unsubordinated indebtedness. We received net proceeds from this offering of approximately $494 million after deducting underwriting discounts and commissions and issuance costs. The balance of our 1.800% Senior Notes at December 31, 2022, was $495 million, which is reflective of $4 million of debt issuance costs and a $1 million discount.

2.100% Senior Notes

On May 13, 2021 the Company issued $500 million of 2.100% Senior Notes due May 2028 ("2.100% Senior Notes"), with interest payments starting November 15, 2021, and payable on May 15 and November 15 of each year. The notes are senior unsecured obligations of SVB Financial Group and rank equally with all of our other unsecured and unsubordinated indebtedness. We received net proceeds from this offering of approximately $496 million after deducting underwriting discounts and commissions and issuance costs. The balance of our 2.100% Senior Notes at December 31, 2022, was $497 million, which is reflective of $3 million of debt issuance costs and less than a $1 million discount.

1.800% Senior Notes

On October 28, 2021 the Company issued $650 million of 1.800% Senior Notes due October 2026 ("1.800% Senior Notes due 2026"), with interest payments starting April 28, 2022. The notes are senior unsecured obligations of SVB Financial Group and rank equally with all of our other unsecured and unsubordinated indebtedness. We received net proceeds from this offering of approximately $644 million after deducting underwriting discounts and commissions and issuance costs. The balance of our 1.800% Senior Notes at December 31, 2022, was $646 million, which is reflective of $3 million of debt issuance costs and a $1 million discount.

4.345% Senior Fixed Rate/Floating Rate Notes

On April 29, 2022 the Company issued $350 million of 4.435% Senior Fixed Rate/Floating Rate Notes due April 2028 ("4.345% Senior Fixed Rate/Floating Rate Notes*") with fixed interest payable on April 29 and October 29 of each year, commencing on October 29, 2022, and ending on April 29, 2027. Beginning on April 29, 2027, the 4.345% Senior Fixed Rate/Floating Rate Notes will begin quarterly floating interest payments on July 29, 2027, October 29, 2027, January 29, 2028, at a floating rate of compounded SOFR plus 1.713%. The 4.345% Senior Fixed Rate/Floating Rate Notes will be redeemable at SVB Financial Group's option, in whole but not in part, on April 29, 2027, and on or after the 30th day prior to the 2028 maturity date at a redemption price equal to 100% of the principal amount of the Senior Notes due 2028, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. We received net proceeds of approximately $348 million after deducting underwriting discounts and commissions and issuance costs. The balance of our 4.345% Senior Notes at December 31, 2022, was $348 million, which is reflective of $2 million of debt issuance costs.

4.570% Senior Fixed Rate/Floating Rate Notes

On April 29, 2022 the Company issued $450 million of 4.570% Senior Fixed Rate/Floating Rate Notes due April 2033 ("4.570% Senior Fixed Rate/Floating Rate Notes*")* with fixed interest payable on April 29 and October 29 of each year,

commencing on October 29, 2022, and ending on April 29, 2032. Beginning on April 29, 2032, the 4.570% Senior Fixed Rate/Floating Rate Notes will begin quarterly interest payments on July 29, 2032, October 29, 2032, January 29, 2033, and October 29, 2033, at a floating rate of compounded SOFR plus 1.967%. The 4.570% Senior Fixed Rate/Floating Rate Notes will be redeemable at SVB Financial Group's option, in whole but not in part, on April 29, 2032, and on or after the 90th day prior to the 2033 maturity date at a redemption price equal to 100% of the principal amount of the Senior Notes due 2033, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. We received net proceeds of approximately $447 million after deducting underwriting discounts and commissions and issuance costs. The balance of our 4.570% Senior Notes at December 31, 2022, was $448 million, which is reflective of $2 million of debt issuance costs.

Junior Subordinated Debentures

On July 1, 2021, SVB Financial Group assumed two statutory trusts during the merger with Boston Private. These trusts were formed for the purpose of issuing trust preferred securities and investing the proceeds in junior subordinated debentures. These statutory trusts created by legacy Boston Private are not consolidated within the financial statements; however, the total junior subordinated debentures payable to the preferred stockholders of statutory trusts are reported as long-term debt in the financial statements.

The preferred securities represent an undivided beneficial interest in the assets of the trusts. We own all of the trusts' common securities. The trusts' only assets are the junior subordinated debentures issued to it by Boston Private on substantially the same payment terms as the trusts' preferred securities.

Boston Private Capital Trust II Junior Subordinated Debentures ("Trust II")

As of December 31, 2022, there are $100 million of trust preferred securities outstanding. The preferred trust securities issued by Trust II pay interest quarterly based on a floating three-month rate of LIBOR plus 1.68% which are cumulative. So long as the Company is not in default in the payment of interest on the junior subordinated debentures, the Company has the right under the indenture to defer payments of interest for up to 20 consecutive quarterly periods. The Company does not currently intend to exercise its right to defer interest payments on the junior debentures issued to Trust II. If the Company defers interest payments, it would be subject to certain restrictions relating to the payment of dividends on or purchases of its capital stock and payments on its debt securities ranking equal with or junior to the junior subordinated debentures. The effective interest rate on the junior subordinated debentures was 2.676%. The junior subordinated debentures will mature on December 30, 2035. As of December 31, 2022, the carrying value of the Company's investment in Trust II was $3 million, which represents the total amount of common securities in such trust.

Boston Private Capital Trust I Junior Subordinated Debenture ("Trust I")

As of December 31, 2022, there are less than $1 million of the convertible trust preferred securities outstanding. The convertible trust preferred securities issued by Trust I pay interest quarterly and have a fixed distribution rate of 4.875%. The quarterly distributions are cumulative. The effective interest rate for the junior subordinated debentures was 4.875%. The junior subordinated convertible debentures will mature on October 1, 2034. As of December 31, 2022, the carrying value of the Company's investment in Trust I was $3 million, which represents the total amount of common securities in such trust.

16. Derivative Financial Instruments

We primarily use derivative financial instruments to manage interest rate risk and currency exchange rate risk and to assist customers with their risk management objectives, which may include currency exchange rate risks and interest rate risks. Also, in connection with negotiating credit facilities and certain other services, we often obtain equity warrant assets, giving us the right to acquire stock in private, venture-backed companies in the technology and life science/healthcare industries.

Interest Rate Risk

Interest rate risk is our primary market risk and can result from timing and volume differences in the repricing of our interest rate sensitive assets and liabilities and changes in market interest rates. To manage interest rate risk on our interest rate sensitive assets, we have entered into interest rate swap contracts to hedge against future changes in interest rates.

Fair Value Hedges

To manage interest rate risk on our AFS securities portfolio, we enter into pay-fixed, receive-floating interest rate swap contracts to hedge against exposure to changes in the fair value of the securities resulting from changes in interest rates. We designate these interest rate swap contracts as fair value hedges that qualify for hedge accounting under ASC 815, *Derivatives and Hedging* ("ASC 815"). In 2021, we elected to account for a portion of the fair value hedges using the last-of-layer method as outlined in ASC 815. All hedges using the last-of-layer method were terminated in 2022. We record the interest rate swaps in the line items "accrued interest receivable and other assets" and "other liabilities" on our consolidated balance sheet. For qualifying fair value hedges, both the changes in the fair value of the derivative and the portion of the fair value adjustments associated with the last-of-layer attributable to the hedged risk are recognized into earnings as they occur. Derivative amounts affecting earnings are recognized consistent with the classification of the hedged item in the line item "investment securities" as part of interest income, a component of consolidated net income.

We assess hedge effectiveness under ASC 815 on a quarterly basis to ensure all hedges remain highly effective and hedge accounting under ASC 815 can be applied. In conjunction with the assessment of effectiveness, we assess the hedged item to ensure it is expected to be outstanding at the hedged item's assumed maturity date and the last-of-layer method of accounting under ASC 815 can be applied. If the hedging relationship no longer exists or no longer qualifies as a hedge per ASC 815, any remaining fair value basis adjustments are allocated to the individual assets in the portfolio and amortized into earnings over a period consistent with the amortization of other discounts and premiums associated with the respective assets. As allowed under ASC 815, we apply the "shortcut" method of accounting to a portion of our fair value hedges which assumes there is perfect effectiveness.

The following table summarizes the amortized cost basis of hedged assets that are designated and qualify as fair value hedges and the cumulative amount of fair value hedging adjustments included in the carrying value that have been recorded on our consolidated balance sheets as of December 31, 2022, and December 31, 2021:

		Cumulative Amount of Fair Value Hedging Adjustment Included in the Amortized Cost Basis of the Hedged Assets	
(Dollars in millions)	**Amortized Cost Basis of the Hedged Assets**	**Active**	**Terminated**
December 31, 2022			
AFS securities	$ 563	$ (2)	$ (290)
December 31, 2021			
AFS securities (1)	$ 15,260	$ (131)	$ 6

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(1) These amounts include the amortized cost basis of closed portfolios used to designate hedging relationships in which the hedged item is the last layer expected to be remaining at the end of the hedging relationship. At December 31, 2021, the amortized cost basis of the closed portfolios used in these hedging relationships was $11.2 billion, the amounts of the designated hedged items was $6.7 billion and the cumulative basis adjustments associated with these hedging relationships was $83 million.

Cash Flow Hedges

To manage interest rate risk on our variable-interest rate loan portfolio, we enter into interest rate swap contracts to hedge against future changes in interest rates by using hedging instruments to lock in future cash inflows that would otherwise be impacted by movements in the market interest rates. We designate these interest rate swap contracts as cash flow hedges that qualify for hedge accounting under ASC 815 and record them in the line items "accrued interest receivable and other assets" and "other liabilities" on our consolidated balance sheet. For qualifying cash flow hedges, changes in the fair value of the derivative are recorded in AOCI and recognized in earnings as the hedged item affects earnings. Derivative amounts affecting earnings are recognized consistent with the classification of the hedged item in the line item "loans" as part of interest income, a component of consolidated net income.

We assess hedge effectiveness under ASC 815 on a quarterly basis to ensure all hedges remain highly effective and hedge accounting under ASC 815 can be applied. If the hedging relationship no longer exists or no longer qualifies as a hedge per ASC 815, any amounts remaining as gain or loss in AOCI are reclassified into earnings in the line item "loans" as part of interest income, a component of consolidated net income. As of March 31, 2020, all derivatives previously classified as hedges with notional balances totaling $5.0 billion and a net asset fair value of $228 million were terminated. As of December 31, 2022, the total unrealized gains on terminated cash flow hedges remaining in AOCI is $60 million, or $43 million net of tax. The unrealized gains will be reclassified into interest income as the underlying forecasted transactions impact earnings through the original maturity of the hedged forecasted transactions. The total remaining term over which the unrealized gains will be reclassified into earnings is approximately two years

Currency Exchange Risk

Derivatives not designated as hedging instruments

We enter into foreign exchange forward contracts to economically reduce our foreign exchange exposure risk associated with the net difference between foreign currency denominated assets and liabilities. Gains or losses from changes in currency rates on foreign currency denominated instruments are recorded in the line item "other" as part of noninterest income, a component of consolidated net income. We may experience ineffectiveness in the economic hedging relationship, because the instruments are revalued based upon changes in the currency's spot rate on the principal value, while the forwards are revalued on a discounted cash flow basis. We record forward agreements in gain positions in the line item "accrued interest receivable and other assets" and loss positions in the line item "other liabilities" on our consolidated balance sheet, while net changes in fair value are recorded in the line item "other" as part of noninterest income, a component of consolidated net income.

Derivatives designated as hedging instruments

We enter into net investment hedges to hedge against the foreign currency risk of a net investment in foreign operations. Certain foreign exchange contracts are designated as net investment hedges to minimize our exposure to variability in the foreign currency translation of net investments in non-U.S. subsidiaries. For qualifying net investment hedges under ASC 815, changes in the spot rate of the net investment hedges of foreign operations are recorded in OCI in the line item "foreign currency translation (losses) gains, net of hedges." We assess hedge effectiveness under ASC 815 at least quarterly to ensure all hedges remain effective and hedge accounting can be applied. Net investment hedge pretax losses of $18 million were recognized in AOCI related to foreign exchange contracts for the year ending December 31, 2022.

Other Derivative Instruments

We issue loans to clients with conversion features allowing SVBFG to convert the contingent conversion rights to stock in private or public companies. All of our contingent conversion rights qualify as derivatives and are reported at fair value as a component of "accrued interest receivable and other assets" on our consolidated balance sheet. Any changes in fair value after the grant date are recognized as net gains or losses in the line item "other" in noninterest income, a component of consolidated net income.

We enter into total return swaps related to certain of our equity funds, which manages the risk of exposure from the volatility of equity investments in the funds. We do not designate any total return swaps as derivative instruments that qualify for hedge accounting. Gains or losses from changes in fair value are recognized as net gains or losses in the line item "other" in noninterest income, a component of consolidated net income.

Also included in our derivative instruments are equity warrant assets and client forward, option, swap and interest rate contracts. For further description of these other derivative instruments, refer to Note 2—"Summary of Significant Accounting Policies."

Counterparty Credit Risk

We are exposed to credit risk if counterparties to our derivative contracts do not perform as expected. We mitigate counterparty credit risk through credit approvals, limits, monitoring procedures and by obtaining collateral, as appropriate. With respect to measuring counterparty credit risk for derivative instruments, we measure the fair value of a group of financial assets and financial liabilities on a net risk basis by counterparty portfolio.

The total notional or contractual amounts and fair value of our derivative financial instruments at December 31, 2022, and December 31, 2021, were as follows:

	December 31, 2022			December 31, 2021		
		Fair Value			Fair Value	
(Dollars in millions)	**Notional or Contractual Amount**	**Derivative Assets (1)**	**Derivative Liabilities (1)**	**Notional or Contractual Amount**	**Derivative Assets (1)**	**Derivative Liabilities (1)**
Derivatives designated as hedging instruments:						
Interest rate risks:						
Interest rate swaps (2)	$ 550	$ —	$ —	$ 10,700	$ 18	$ —
Currency exchange risks:						
Foreign exchange contracts	778	17	—	—	—	—
Foreign exchange contracts	616	—	56	—	—	—
Total derivatives designated as hedging instruments		17	56		18	—
Derivatives not designated as hedging instruments:						
Currency exchange risks:						
Foreign exchange contracts	1,763	42	—	701	16	—
Foreign exchange contracts	2,184	—	29	62	—	2
Other derivative instruments:						
Equity warrant assets	375	383	—	322	277	—
Contingent conversion rights	92	12	—	—	—	—
Client foreign exchange contracts	10,145	262	—	8,245	146	—
Client foreign exchange contracts	9,960	—	257	7,764	—	126
Total return swaps	119	40	—	—	—	—
Client foreign currency options	866	19	—	688	9	—
Client foreign currency options	866	—	19	688	—	9
Client interest rate derivatives (2)	2,391	128	—	2,178	99	—
Client interest rate derivatives (2)	2,709	—	195	2,315	—	101
Total derivatives not designated as hedging instruments		886	500		547	238
Total gross derivatives		903	556		565	238
Less: netting adjustment (3)		(351)	(223)		(137)	(120)
Total derivatives		$ 552	$ 333		$ 428	$ 118

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(1) Derivative assets and liabilities are included in "accrued interest receivable and other assets" and "other liabilities", respectively, on our consolidated balance sheets.

(2) The amount reported reflects reductions of approximately $74 million and $112 million of derivative assets at December 31, 2022, and 2021, respectively, reflecting variation margin treated as settlement of the related derivative fair values for legal and accounting purposes as required by central clearing houses.

(3) For some counterparties, the collateral amounts of financial instruments may exceed the derivative receivables and derivative payables balances. Where this is the case, the total amount reported is limited to the net derivative receivables and net derivative payables balances with that counterparty. There was approximately $31 million of cash collateral in excess of net derivative receivables and $1 million of cash collateral in excess of net derivative payables balances not included in the netting adjustment at December 31, 2022, and December 31, 2021, respectively.

A summary of our derivative activity and the related impact on our consolidated statements of income for 2022, 2021 and 2020 is as follows:

(Dollars in millions)	Statement of income location	Year ended December 31, 2022	2021	2020
Derivatives designated as hedging instruments:				
Interest rate risks:				
Amounts reclassified from AOCI into income	Interest income - loans	$ 56	$ 63	$ 50
Change in fair value of interest rate swaps hedging investment securities	Interest income - investment securities taxable	387	138	—
Change in fair value of hedged investment securities	Interest income - investment securities taxable	(387)	(139)	—
Net gains associated with interest rate risk derivatives		$ 56	$ 62	$ 50
Derivatives not designated as hedging instruments:				
Currency exchange risks:				
(Losses) gains on revaluations of internal foreign currency instruments, net	Other noninterest income	$ (42)	$ (43)	$ 39
Gains (losses) on internal foreign exchange forward contracts, net	Other noninterest income	32	43	(40)
Net losses associated with internal currency risk		$ (10)	$ —	$ (1)
Other derivative instruments:				
Gains on revaluations of client foreign currency instruments, net	Other noninterest income	$ 23	$ 17	$ 3
Losses on client foreign exchange forward contracts, net	Other noninterest income	(10)	(17)	(3)
Net gains associated with client currency risk		$ 13	$ —	$ —
Gains on total return swaps	Other noninterest income	$ 40	$ —	$ —
Net gains on equity warrant assets	Gains on equity warrant assets, net	$ 148	$ 560	$ 237
Net gains on other derivatives	Other noninterest income	$ 5	$ 2	$ 28

Balance Sheet Offsetting

Certain of our derivative and other financial instruments are subject to enforceable master netting arrangements with our counterparties. These agreements provide for the net settlement of multiple contracts with a single counterparty through a single payment, in a single currency, in the event of default on or termination of any one contract.

The following table summarizes our assets subject to enforceable master netting arrangements as of December 31, 2022, and December 31, 2021:

(Dollars in millions)	Gross Amounts of Recognized Assets	Gross Amounts Offset in the Statement of Financial Position (1) Financial Instruments	Cash Collateral Received	Net Amounts of Assets Presented in the Statement of Financial Position (1)	Gross Amounts Not Offset in the Statement of Financial Position	Net Amount
December 31, 2022:						
Derivatives	$ 382	$ (144)	$ (207)	$ 31	$ —	$ 31
Reverse repurchase, securities borrowing and similar arrangements	722	—	—	722	(722)	—
Total	$ 1,104	$ (144)	$ (207)	$ 753	$ (722)	$ 31
December 31, 2021:						
Derivatives	$ 165	$ (87)	$ (50)	$ 28	$ —	$ 28
Reverse repurchase, securities borrowing and similar arrangements	607	—	—	607	(607)	—
Total	$ 772	$ (87)	$ (50)	$ 635	$ (607)	$ 28

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(1) During the third quarter of 2022, we changed our accounting policy to report the fair values of our derivative assets and liabilities subject to ISDA master netting arrangements on a net basis where a right of setoff exists. The net derivative fair values have been further adjusted for cash collateral received/pledged. The change in accounting policy was applied retrospectively, and prior periods have been revised to conform with current period presentation.

The following table summarizes our liabilities subject to enforceable master netting arrangements as of December 31, 2022, and December 31, 2021:

(Dollars in millions)	Gross Amounts of Recognized Liabilities	Gross Amounts Offset in the Statement of Financial Position (1) Financial Instruments	Cash Collateral Pledged	Net Amounts of Liabilities Presented in the Statement of Financial Position (1)	Gross Amounts Not Offset in the Statement of Financial Position	Net Amount
December 31, 2022:						
Derivatives	$ 234	$ (144)	$ (79)	$ 11	$ —	$ 11
Repurchase, securities lending and similar arrangements	525	—	—	525	—	525
Total	$ 759	$ (144)	$ (79)	$ 536	$ —	$ 536
December 31, 2021:						
Derivatives	$ 148	$ (87)	$ (33)	$ 28	$ —	$ 28
Repurchase, securities lending and similar arrangements	61	—	—	61	—	61
Total	$ 209	$ (87)	$ (33)	$ 89	$ —	$ 89

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(1) During the third quarter of 2022, we changed our accounting policy to report the fair values of our derivative assets and liabilities subject to ISDA master netting arrangements on a net basis where a right of setoff exists. The net derivative fair values have been further adjusted for cash collateral received/pledged. The change in accounting policy was applied retrospectively, and prior periods have been revised to conform with current period presentation.

17. Noninterest Income

All of the Company's revenue from contracts with customers within the scope of ASC 606, *Revenue from Contracts with Customers*, is recognized within noninterest income. Included below is a summary of noninterest income for the years ended December 31, 2022, December 31, 2021 and December 31, 2020:

(Dollars in millions)	Year ended December 31, 2022	2021	2020
Noninterest income:			
(Losses) gains on investment securities, net	$ (285)	$ 761	$ 421
Gains on equity warrant assets, net	148	560	237
Client investment fees	386	75	132
Wealth management and trust fees	83	44	—
Foreign exchange fees	285	262	179
Credit card fees	150	131	98
Deposit service charges	126	112	90
Lending related fees	94	76	57
Letters of credit and standby letters of credit fees	57	51	47
Investment banking revenue	420	459	414
Commissions	98	79	67
Other	166	128	98
Total noninterest income	$ 1,728	$ 2,738	$ 1,840

Gains (losses) on investment securities, net

Net gains (losses) on investment securities include both gains and losses from our non-marketable and other equity securities, which include public equity securities held as a result of exercised equity warrant assets, gains and losses from sales of our AFS debt securities portfolio, when applicable, and carried interest.

Our non-marketable and other equity securities portfolio primarily represents investments in venture capital and private equity funds, SPD-SVB, debt and credit funds, private and public portfolio companies, which include public equity securities held as a result of exercised equity warrant assets, and qualified affordable housing projects. We experience variability in the performance of our non-marketable and other equity securities from period to period, which results in net

gains or losses on investment securities (both realized and unrealized). This variability is due to a number of factors, including unrealized changes in the values of our investments, changes in the amount of realized gains from distributions, changes in liquidity events and general economic and market conditions. Unrealized gains and losses from non-marketable and other equity securities for any single period are typically driven by valuation changes.

The extent to which any unrealized gains or losses will become realized is subject to a variety of factors, including, among other things, the expiration of certain sales restrictions to which these equity securities may be subject to (e.g., lock-up agreements), changes in prevailing market prices, market conditions, the actual sales or distributions of securities and the timing of such actual sales or distributions, which, to the extent such securities are managed by our managed funds, are subject to our funds' separate discretionary sales/distributions and governance processes.

Carried interest is comprised of preferential allocations of profits recognizable when the return on assets of our individual managed fund of funds and direct venture funds exceeds certain performance targets and is payable to us, as the general partners of the managed funds. The carried interest we earn is often shared with employees, who are also members of the general partner entities. We record carried interest on a quarterly basis by measuring fund performance to date versus the performance target. For our unconsolidated managed funds, carried interest is recorded as gains on investment securities, net. For our consolidated managed funds, it is recorded as a component of net income attributable to NCI. Carried interest allocated to others is recorded as a component of net income attributable to NCI. Any carried interest paid to us (or our employees) may be subject to reversal to the extent fund performance declines to a level where inception to date carried interest is lower than actual payments made by the funds. The limited partnership agreements for our funds provide that carried interest is generally not paid to the general partners until the funds have provided a full return of contributed capital to the limited partners. Accrued, but unpaid carried interest may be subject to reversal to the extent that the fund performance declines to a level where inception-to-date carried interest is less than prior amounts recognized. Carried interest income is accounted for under an ownership model based on *ASC 323, Equity Method of Accounting* and *ASC 810, Consolidation.*

Our AFS securities portfolio is a fixed income investment portfolio that is managed with the objective of earning an appropriate portfolio yield over the long-term while maintaining sufficient liquidity and credit diversification as well as addressing our asset/liability management objectives. Though infrequent, sales of debt securities in our AFS securities portfolio may result in net gains or losses and are conducted pursuant to the guidelines of our investment policy related to the management of our liquidity position and interest rate risk.

Gains and losses on investment securities are recognized outside of the scope of ASC 606, as it explicitly excludes noninterest income earned from our investment-related activities. A summary of gains and losses on investment securities for 2022, 2021 and 2020 is as follows:

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**
Gains (losses) on non-marketable and other equity securities, net	$ (306)	$ 730	$ 360
Gains (losses) on sales of AFS debt securities, net	21	31	61
Total gains (losses) on investment securities, net	$ (285)	$ 761	$ 421

Gains on equity warrant assets, net

In connection with negotiating credit facilities and certain other services, we often obtain rights to acquire stock in the form of equity warrant assets in primarily private, venture-backed companies in the technology and life science/healthcare industries. Any changes in fair value from the grant date fair value of equity warrant assets will be recognized as increases or decreases to other assets on our balance sheet and as net gains or losses on equity warrant assets, in noninterest income, a component of consolidated net income.

Gains on equity warrant assets, net are recognized outside of the scope of ASC 606, as it explicitly excludes noninterest income earned from our derivative-related activities. A summary of net gains on equity warrant assets for 2022, 2021 and 2020 is as follows:

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**
Equity warrant assets:			
Gains on exercises, net	$ 45	$ 446	$ 179
Terminations	(4)	(2)	(2)
Changes in fair value, net	107	116	60
Total net gains on equity warrant assets	$ 148	$ 560	$ 237

Client investment fees

Client investment fees include fees earned from discretionary investment management services for managing clients' portfolios based on their investment policies, strategies and objectives. Revenue is recognized on a monthly basis upon completion of our performance obligation, and consideration is typically received in the subsequent month. Included in our sweep money market fees are Rule 12(b)-1 fees, revenue sharing and customer transactional-based fees. Rule 12(b)-1 fees and revenue sharing are recognized as earned based on client funds that are invested in the period, typically monthly. Transactional based fees are earned and recognized on fixed income securities and repurchase agreements when the transaction is executed on the clients' behalf. Amounts paid to third-party service providers are predominantly expensed, such that client investment fees are recorded gross of payments made to third parties. A summary of client investment fees by instrument type for 2022, 2021 and 2020 is as follows:

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**
Client investment fees by type:			
Sweep money market fees	$ 215	$ 43	$ 74
Asset management fees (1)	57	31	43
Repurchase agreement fees	114	1	15
Total client investment fees (2)	$ 386	$ 75	$ 132

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(1) Represents fees earned from investments in third-party money market mutual funds and fixed-income securities managed by SVB Asset Management.

(2) Represents fees earned on client investment funds that are maintained at third-party financial institutions and are not recorded on our balance sheet.

Wealth management and trust fees

Wealth management fees are earned for providing wealth management, retirement plan advisory, family office, financial planning and other financial advisory services to clients. The Company's performance obligation under these contracts is satisfied over time as the services are provided. Fees are recognized monthly based on the average monthly, beginning-of-quarter, or, for a small number of clients, end-of-quarter market value of the Private Bank AUM and the applicable fee rate, depending on the terms of the contracts. Fees are also recognized monthly based either on a fixed fee amount or the quarter-end (in arrears) market value of the Private Bank AUM and the applicable fee rate, depending on the terms of the contracts. No performance-based incentives are earned under wealth management contracts. Receivables are recorded on the consolidated balance sheets in the "Accrued interest receivable and other assets" line item.

Trust fees are earned when the Company is appointed as trustee for clients. As trustee, the Company administers the client's trust and manages the assets of the trust, including investments and property. The Company's performance obligation under these agreements is satisfied over time as the administration and management services are provided. Fees are recognized monthly or, in certain circumstances, quarterly based on a percentage of the market value of the account as outlined in the agreement. Payment frequency is defined in the individual contracts, which primarily stipulate monthly in arrears. No performance-based incentives are earned on trust fee contracts. Receivables are recorded on the consolidated balance sheets in the "Accrued interest receivable and other assets" line item. A summary of wealth management and trust fees for 2022, 2021 and 2020 is as follows:

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**
Wealth management and trust fees by type:			
Wealth management fees	$ 75	$ 40	$ —
Trust fees	8	4	—
Total wealth management and trust fees	$ 83	$ 44	$ —

Foreign exchange fees

Foreign exchange fees represent the income differential between purchases and sales of foreign currency on behalf of our clients, primarily from spot contracts. Foreign exchange spot contract fees recognized upon the completion of a single performance obligation are recognized within the scope of ASC 606.

Foreign exchange contracts and option premium fees are recognized outside of the scope of ASC 606, as it explicitly excludes noninterest income earned from our derivative-related activities.

A summary of foreign exchange fee income by instrument type for 2022, 2021 and 2020 is as follows:

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**
Foreign exchange fees by instrument type:			
Foreign exchange contract commissions	$ 282	$ 260	$ 178
Option premium fees	3	2	1
Total foreign exchange fees	$ 285	$ 262	$ 179

Credit card fees

Credit card fees include interchange income from credit and debit cards and fees earned from processing transactions for merchants. Interchange income is earned after satisfying our performance obligation of providing nightly settlement services to a payment network. Costs related to rewards programs are recorded when the rewards are earned by the customer and presented as a reduction to interchange fee income. Rewards programs continue to be accounted for under ASC 310, *Receivables.* Our performance obligations for merchant service fees are to transmit data and funds between the merchant and the payment network. Credit card interchange and merchant service fees are earned daily upon completion of transaction settlement services.

Annual card service fees are recognized on a straight-line basis over a 12-month period and continue to be accounted for under ASC 310, *Receivables.*

A summary of credit card fees by instrument type for 2022, 2021 and 2020 is as follows:

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**
Credit card fees by instrument type:			
Card interchange fees, net	$ 117	$ 108	$ 76
Merchant service fees	26	18	18
Card service fees	7	5	4
Total credit card fees	$ 150	$ 131	$ 98

Deposit service charges

Deposit service charges include fees earned from performing cash management activities and other deposit account services. Deposit services include, but are not limited to, the following: receivables services, which include merchant services, remote capture, lockbox, electronic deposit capture and fraud control services. Payment and cash management products and services include wire transfer and automated clearing house payment services to enable clients to transfer funds more quickly, as well as business bill pay, business credit and debit cards, account analysis and disbursement services. Deposit service charges are recognized over the period in which the related performance obligation is provided, generally on a monthly basis.

Lending related fees

Unused commitment fees, minimum finance fees and unused line fees are recognized as earned on a monthly basis. Fees that qualify for syndication treatment are recognized at the completion of the syndicated loan deal for which the fees were received.

Lending related fees are recognized outside of the scope of ASC 606, as it explicitly excludes noninterest income earned from our lending-related activities. A summary of lending related fees by instrument type for 2022, 2021 and 2020 is as follows:

(Dollars in millions)	Year ended December 31, 2022	2021	2020
Lending related fees by instrument type:			
Unused commitment fees	$ 70	$ 59	$ 42
Other	24	17	15
Total lending related fees	$ 94	$ 76	$ 57

Letters of credit and standby letters of credit fees

Standby letters of credit represent conditional commitments issued by us on behalf of a client to guarantee the performance of the client to a third party when certain specified future events have occurred. Fees generated from letters of credit and standby letters of credit are deferred as a component of other liabilities and recognized in noninterest income over the commitment period using the straight-line method, based on the likelihood that the commitment being drawn down will be remote. Letters of credit and standby letters of credit fees are recognized outside of the scope of ASC 606, as it explicitly excludes noninterest income earned from our lending related activities.

Investment banking revenue

We earn investment banking revenue from clients for providing services related to securities underwriting, private placements and advisory services on strategic matters such as mergers and acquisitions. Underwriting fees are attributable to public and private offerings of equity and debt securities and are recognized at the point in time when the offering has been deemed to be completed by the lead manager of the underwriting group. Once the offering is completed, the performance obligation has been satisfied and we recognize the applicable management fee as well as the underwriting fee, net of consideration payable to customers. Private placement fees are recognized at the point in time when the private placement is completed, which is generally when the client accepts capital from the fund raise. Advisory fees from mergers and acquisitions engagements are generally recognized at the point in time when the related transaction is completed. Expenses are deferred only to the extent they are explicitly reimbursable by the client, and the related revenue is recognized at a point in time. All other deal-related expenses are expensed as incurred. We have determined that we act as principal in the majority of these transactions and therefore present expenses gross within other operating expenses.

A summary of investment banking revenue by instrument type for 2022, 2021 and 2020 is as follows:

(Dollars in millions)	Year ended December 31, 2022	2021	2020
Investment banking revenue:			
Underwriting fees	$ 163	$ 304	$ 353
Advisory fees	214	90	40
Private placements and other	43	65	21
Total investment banking revenue	$ 420	$ 459	$ 414

Commissions

Commissions include commissions received from customers for the execution of agency-based brokerage transactions in listed and over-the-counter equities. The execution of each trade order represents a distinct performance obligation, and the transaction price is fixed at the point in time or trade order execution. Trade execution is satisfied at the point in time that the customer has control of the asset and as such, fees are recorded on a trade date basis. The Company also earns subscription fees for market intelligence services that are recognized over the period in which they are delivered. Fees received before the subscription period ends are initially recorded as deferred revenue (a contract liability) in other liabilities in our consolidated balance sheet.

Other

Other noninterest income primarily includes income from fund management fees, gains from conversion of convertible debt options and service revenue. Fund management fees are comprised of fees charged directly to our managed funds of funds and direct venture funds. Fund management fees are based upon the contractual terms of the limited partnership agreements and are generally recognized as earned over the specified contract period, which is generally equal to the life of the individual fund. Fund management fees are calculated as a percentage of committed capital and collected quarterly in advance and recognized over the quarter. Fund management fees for certain of our limited partnership agreements are calculated as a percentage of distributions made by the funds, and revenue is recorded only at the time of a distribution event. As distribution events are not predetermined for these certain funds, management fees are considered variable and constrained under ASC 606.

Gains from conversion of convertible debt options represent unrealized valuation gains on loan conversion derivative assets, and realized gains from the conversion of debt instruments, convertible into a third party's common stock upon a triggering event such as an IPO. Gains from conversion of convertible debt options are recognized outside of the scope of ASC 606, as it explicitly excludes noninterest income earned from our derivative-related activities.

Other service revenue primarily consists of gains or losses from changes in fair value of total return swaps, dividend income on FHLB/FRB stock, correspondent bank rebate income, incentive fees, or performance fees related to carried interest and other fee income. We recognize revenue when our performance obligations are met and record revenues on a daily/monthly, quarterly, semi-annual or annual basis. For event driven revenue sources, we recognize revenue when: (i) persuasive evidence of an arrangement exists, (ii) we have performed the service, provided we have no other remaining obligations to the customer, (iii) the fee is fixed or determinable and (iv) collectability is probable.

A summary of other noninterest income by instrument type for 2022, 2021 and 2020 is as follows:

(Dollars in millions)	Year ended December 31, 2022	2021	2020
Other noninterest income by instrument type:			
Fund management fees	$ 59	$ 67	$ 39
Net gains (losses) on revaluation of foreign currency instruments, net of foreign exchange forward contracts (1)	3	—	(1)
Gains from conversion of convertible debt options	—	—	30
Gains on total return swaps	40	—	—
Other service revenue	64	61	30
Total other noninterest income	$ 166	$ 128	$ 98

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(1) Represents the net revaluation of client and internal foreign currency denominated financial instruments. We enter into foreign exchange forward contracts to economically reduce our foreign exchange exposure related to client and internal foreign currency denominated financial instruments.

Disaggregation of Revenue from Contracts with Customers

The following tables present our revenues from contracts with customers disaggregated by revenue source and segment for the years ended December 31, 2022, December 31, 2021 and December 31, 2020:

Year ended December 31, 2022 (Dollars in millions)	Silicon Valley Bank (3)	SVB Private	SVB Capital (3)	SVB Securities (3)	Other Items	Total
Revenue from contracts with customers:						
Client investment fees	$ 384	$ —	$ —	$ —	$ 2	$ 386
Wealth management and trust fees	—	83	—	—	—	83
Card interchange fees, gross	223	1	—	—	3	227
Merchant service fees	25	1	—	—	—	26
Deposit service charges	124	1	—	—	1	126
Investment banking revenue	—	—	—	420	—	420
Commissions	—	—	—	98	—	98
Fund management fees	2	—	52	5	—	59
Other (1)	71	1	6	—	—	78
Total revenue from contracts with customers	$ 829	$ 87	$ 58	$ 523	$ 6	$ 1,503
Revenues outside the scope of ASC 606 (2)	278	9	(168)	(18)	124	225
Total noninterest income	$ 1,107	$ 96	$ (110)	$ 505	$ 130	$ 1,728

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(1) Includes certain spot contract commissions, performance fees and correspondent bank rebates.
(2) Amounts are accounted for under separate guidance than ASC 606.
(3) Silicon Valley Bank's, SVB Capital's and SVB Securities' components of noninterest income are shown net of NCI. NCI is included within "Other Items."

Year ended December 31, 2021 (Dollars in millions)	Silicon Valley Bank (3)	SVB Private	SVB Capital (3)	SVB Securities (3)	Other Items	Total
Revenue from contracts with customers:						
Client investment fees	$ 73	$ 2	$ —	$ —	$ —	$ 75
Wealth management and trust fees	—	44	—	—	—	44

Card interchange fees, gross	198	1	—	—	2	201
Merchant service fees	17	1	—	—	—	18
Deposit service charges	109	1	—	—	2	112
Investment banking revenue	—	—	—	459	—	459
Commissions	—	—	—	79	—	79
Fund management fees	—	—	62	5	—	67
Other (1)	243	2	13	—	1	259
Total revenue from contracts with customers	$ 640	$ 51	$ 75	$ 543	$ 5	$ 1,314
Revenues outside the scope of ASC 606 (2)	66	7	412	65	874	1,424
Total noninterest income	$ 706	$ 58	$ 487	$ 608	$ 879	$ 2,738

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(1) Includes certain spot contract commissions, performance fees and correspondent bank rebates.
(2) Amounts are accounted for under separate guidance than ASC 606.
(3) Silicon Valley Bank's, SVB Capital's and SVB Securities' components of noninterest income are shown net of NCI. NCI is included within "Other Items."

Year ended December 31, 2020

(Dollars in millions)	Silicon Valley Bank (3)	SVB Private	SVB Capital (3)	SVB Securities (3)	Other Items	Total
Revenue from contracts with customers:						
Client investment fees	$ 129	$ 3	$ —	$ —	$ —	$ 132
Card interchange fees, gross	127	1	—	—	2	130
Merchant service fees	17	1	—	—	—	18
Deposit service charges	90	—	—	—	—	90
Investment banking revenue	—	—	—	414	—	414
Commissions	—	—	—	67	—	67
Fund management fees	—	—	32	7	—	39
Other (1)	162	—	4	—	1	167
Total revenue from contracts with customers	$ 525	$ 5	$ 36	$ 488	$ 3	$ 1,057
Revenues outside the scope of ASC 606 (2)	79	—	190	9	505	783
Total noninterest income	$ 604	$ 5	$ 226	$ 497	$ 508	$ 1,840

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(1) Includes certain spot contract commissions, performance fees and correspondent bank rebates.
(2) Amounts are accounted for under separate guidance than ASC 606.
(3) Silicon Valley Bank's and SVB Capital's components of noninterest income are shown net of NCI. NCI is included within "Other Items."

18. Income Taxes

The components of our income before income taxes by U.S and foreign for 2022, 2021 and 2020 were as follows:

	Year ended December 31,		
(Dollars in millions)	2022	2021	2020
U.S	$ 1,996	$ 2,624	$ 1,673
Foreign	176	100	69
Income before income tax expense	$ 2,172	$ 2,724	$ 1,742

The components of our provision for income taxes for 2022, 2021 and 2020 were as follows:

	Year ended December 31,		
(Dollars in millions)	2022	2021	2020
Current provision:			
Federal	$ 34	$ 409	$ 282
State	(100)	224	141
Foreign	38	26	18
Deferred expense (benefit):			
Federal	330	5	6
State	254	(11)	2
Foreign	7	(2)	(1)
Income tax expense	$ 563	$ 651	$ 448

Our effective tax rate is calculated by dividing income tax expense by the sum of income before income tax expense and the net income attributable to NCI. The reconciliation between the federal statutory income tax rate and our effective income tax rate for 2022, 2021 and 2020 is as follows:

	December 31,		
(Dollars in millions)	2022	2021	2020
Federal statutory income tax rate	21.0 %	21.0 %	21.0 %
State income taxes, net of the federal tax effect	6.8	7.5	6.8
Share-based compensation expense on incentive stock options and ESPP	(0.8)	(1.6)	(0.3)
Qualified affordable housing project tax credits	(0.4)	(0.2)	(0.5)
Tax-exempt interest income	(1.6)	(1.0)	(0.8)
Other, net	0.2	0.5	0.8
Effective income tax rate	25.2 %	26.2 %	27.0 %

Deferred tax assets and liabilities at December 31, 2022, and December 31, 2021, consisted of the following:

	December 31,	
(Dollars in millions)	2022	2021
Deferred tax assets:		
Allowance for credit losses	$ 260	$ 170
Share-based compensation expense	36	26
Accrued compensation	82	77
Loans and debt securities	—	113
Lease liability	112	105
Net operating loss carryforwards	1,650	7
Other	205	56
Deferred tax assets	2,345	554
Valuation allowance	(6)	(7)
Net deferred tax assets after valuation allowance	2,339	547
Deferred tax liabilities:		
Derivative equity warrant assets	(80)	(82)
Net unrealized gains on cash flow hedge derivatives	(17)	(33)
Loans and debt securities	(1,773)	—
Non-marketable and other equity securities	(128)	(219)
Premises and equipment	(54)	(41)
Right-of-use asset and deferred rent assets	(89)	(81)
Goodwill and intangibles	(24)	(24)
Merger-related fair value adjustments	(15)	(28)
Other	(6)	(15)
Deferred tax liabilities	(2,186)	(523)
Net deferred tax assets (liabilities)	$ 153	$ 24

Net Deferred Tax Assets

At December 31, 2022, total U.S. federal net operating loss carryforwards were $6.4 billion, state net operating loss carryforwards were $4.5 billion, foreign net operating loss carryforwards were $22 million, foreign tax credit carryforwards were $43 million and state general business tax credit carryforwards were $16 million. The U.S. federal net operating loss carryforwards have an unlimited carryforward, the state net operating loss carryforwards expire at various dates beginning 2027, foreign net operating loss carryforwards expire at various dates beginning 2028, foreign tax credit carryforwards expire at various dates beginning 2029 and the state general business tax credit carryforwards expire at various dates beginning 2028.

Currently, we believe that it is more likely than not that the benefit from the foreign net operating loss carryforwards, which are associated with our Canada operations, will not be realized in the near term due to uncertainties in the timing of future profitability in the course of business. In recognition of this, we have a valuation allowance of $6 million on the deferred tax assets related to our Canadian net operating loss carryforwards as of December 31, 2022. We believe it is more likely than not that the remaining deferred tax assets will be realized against future taxable income. Therefore, no valuation allowance was provided for the remaining deferred tax assets.

We are subject to income tax and non-income based taxes by the U.S. federal tax authorities as well as various state and foreign tax authorities. The U.S. and the state of California are major tax filing jurisdictions. We are subject to examination by the IRS and tax authorities in various state, local and foreign tax jurisdictions. For California, tax years 2013-2014 are under appeals with the Office of Tax Appeals, and tax years 2015-2016 are under examination. Our U.S. federal tax returns remain open to examination for 2019 and subsequent tax years. California tax returns remain open to examination for 2018 and subsequent tax years.

At December 31, 2022, our unrecognized tax benefit was $37 million, the recognition of which would reduce our income tax expense by $29 million. We are unable to estimate the unrecognized tax benefit that will materially change in the next 12 months.

We recognize interest and penalties related to income tax matters as part of income before income taxes. Interest and penalties were not material for the years ended December 31, 2022, December 31, 2021 and December 31, 2020.

A summary of changes in our unrecognized tax benefit (including interest and penalties) for 2022, 2021 and 2020 is as follows:

(Dollars in millions)	Reconciliation of Unrecognized Tax Benefit	Interest and Penalties	Total
Balance at December 31, 2019	$ 13	$ 1	$ 14
Additions for tax positions for current year	5	—	5
Additions for tax positions for prior years	1	1	2
Reduction for tax positions for prior years	(1)	—	(1)
Lapse of the applicable statute of limitations	(1)	—	(1)
Reduction as a result of settlement	(1)	—	(1)
Balance at December 31, 2020	$ 16	$ 2	$ 18
Additions for tax positions for current year	21	—	21
Additions for tax positions for prior years	—	1	1
Reduction for tax positions for prior years	—	—	—
Lapse of the applicable statute of limitations	—	—	—
Reduction as a result of settlement	—	—	—
Balance at December 31, 2021	$ 37	$ 3	$ 40
Additions for tax positions for current year	7	—	7
Additions for tax positions for prior years	1	2	3
Reduction for tax positions for prior years	(4)	—	(4)
Lapse of the applicable statute of limitations	(2)	(1)	(3)
Reduction as a result of settlement	(2)	—	(2)
Balance at December 31, 2022	$ 37	$ 4	$ 41

19. Employee Benefit Plans

Deferred Compensation Plan

Under the Deferred Compensation Plan (the "DC Plan"), eligible employees may elect to defer up to 50 percent of their base salary and/or up to 100 percent of any eligible bonus payment earned during the plan year. Any amounts deferred under the DC Plan will be invested and administered by us (or such person we designate). We generally do not match employee deferrals to the DC Plan. From time to time, we may also offer deferred special retention incentives and employer contributions under this plan to key plan participants. The deferred incentives and employer contributions are eligible for investment in the DC Plan during the retention qualifying period or vesting period.

Voluntary deferrals under the DC Plan were $13 million, $8 million and $6 million in 2022, 2021 and 2020, respectively. The DC Plan overall had investment losses of $9 million in 2022 and gains of $7 million and $8 million in 2021 and 2020, respectively.

401(k) and ESOP

The 401(k) Plan and ESOP, collectively referred to as the "Plan", is a combined 401(k) tax-deferred savings plan and employee stock ownership plan in which most regular U.S. employees are eligible to participate.

Discretionary ESOP and profit-sharing contributions, based on our company performance, are made by us to all eligible individuals employed by us on the last day of the fiscal year. We may elect to contribute cash or our common stock (or a combination of cash and stock), in an amount not exceeding 10 percent of the employee's eligible pay earned in the fiscal year. The ESOP and/or profit-sharing contributions vest in equal annual increments over a participant's first five years of service (thereafter, all subsequent ESOP and/or profit-sharing contributions are fully vested). For 2022, 2021 and 2020, 12,449, 6,100 and 12,094 shares, respectively, were allocated to participants in the ESOP.

Expenses incurred related to the Plan were $74 million, $54 million and $36 million as of December 31, 2022, December 31, 2021, and December 31, 2020, respectively.

20. Related Parties

We have no material related party transactions requiring disclosure. In the ordinary course of business, the Bank may extend credit to related parties, including executive officers, directors, principal shareholders and their related interests. Additionally, we also provide real estate secured loans to eligible employees through our EHOP.

21. Off-Balance Sheet Arrangements, Guarantees and Other Commitments

In the normal course of business, we use financial instruments with off-balance sheet risk to meet the financing needs of our clients. These financial instruments include commitments to extend credit, commercial and standby letters of credit and commitments to invest in venture capital and private equity fund investments. Some of these instruments involve, to varying degrees, elements of credit risk. Credit risk is defined as the possibility of sustaining a loss because other parties to the financial instrument fail to perform in accordance with the terms of the contract.

Commitments to Extend Credit

A commitment to extend credit is a formal agreement to lend funds to a client as long as there is no violation of any condition established in the agreement. Such commitments generally have fixed expiration dates, or other termination clauses, and usually require a fee paid by the client upon us issuing the commitment. The following table summarizes information related to our commitments to extend credit as of December 31, 2022, and December 31, 2021, respectively:

	December 31,	
(Dollars in millions)	2022	2021
Loan commitments (1)	$ 58,891	$ 40,327
Standby letters of credit (2)	3,567	3,612
Commercial letters of credit (3)	83	77
Total unfunded credit commitments	$ 62,541	$ 44,016
Allowance for unfunded credit commitments (4)	303	171

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(1) Represents commitments which are available for funding, due to clients meeting all collateral, compliance and financial covenants required under loan commitment agreements.
(2) See below for additional information on our standby letters of credit.
(3) Commercial letters of credit are issued primarily for inventory purchases by a client and are typically short-term in nature.
(4) Our allowance for credit losses for unfunded credit commitments includes an allowance for both our unfunded loan commitments and our letters of credit.

Our potential exposure to credit loss for commitments to extend credit, in the event of nonperformance by the other party to the financial instrument, is the contractual amount of the available unused loan commitment. We use the same credit approval and monitoring process in extending credit commitments as we do in making loans. The actual liquidity needs and the credit risk that we have experienced have historically been lower than the contractual amount of commitments to extend credit because a significant portion of these commitments expire without being drawn upon. We evaluate each potential borrower and the necessary collateral on an individual basis. The type of collateral varies, but may include real property, intellectual property, bank deposits or business and personal assets. The credit risk associated with these commitments is considered in the allowance for unfunded credit commitments.

Standby Letters of Credit

Standby letters of credit represent conditional commitments issued by us on behalf of a client to guarantee the performance of the client to a third party when certain specified future events have occurred. We provide two types of standby letters of credit: performance and financial standby letters of credit. Performance standby letters of credit are issued to guarantee the performance of a client to a third party when certain specified future events have occurred and are primarily used to support performance instruments such as bid bonds, performance bonds, lease obligations, repayment of loans and past due notices. Financial standby letters of credit are conditional commitments issued by us to guarantee the payment by a client to a third party (beneficiary) and are primarily used to support many types of domestic and international payments. These standby letters of credit have fixed expiration dates and generally require a fee to be paid by the client at the time we issue the commitment.

The credit risk involved in issuing letters of credit is essentially the same as that involved with extending credit commitments to clients, and accordingly, we use a credit evaluation process and collateral requirements similar to those for credit commitments. When necessary, our standby letters of credit often are cash secured by our clients. The actual liquidity needs and the credit risk that we have experienced historically have been lower than the contractual amount of letters of credit issued because a significant portion of these conditional commitments expire without being drawn upon.

The table below summarizes our standby letters of credit at December 31, 2022. The maximum potential amount of future payments represents the amount that could be remitted under letters of credit if there were a total default by the guaranteed parties, without consideration of possible recoveries under recourse provisions or from the collateral held or pledged.

(Dollars in millions)	Expires In One Year or Less	Expires After One Year	Total Amount Outstanding	Maximum Amount of Future Payments
Financial standby letters of credit	$ 3,363	$ 115	$ 3,478	$ 3,478
Performance standby letters of credit	80	9	89	89
Total	$ 3,443	$ 124	$ 3,567	$ 3,567

Deferred fees related to financial and performance standby letters of credit were $20 million at both December 31, 2022, and December 31, 2021.

Commitments to Invest in Venture Capital and Private Equity Funds

We make commitments to invest in venture capital and private equity funds, which generally make investments in privately-held companies. Commitments to invest in these funds are generally made for a 10-year period from the inception of the fund. Although the limited partnership agreements governing these investments typically do not restrict the general partners from calling 100% of committed capital in one year, it is customary for these funds to call most of the capital commitments over 5 to 7 years, and in certain cases, the funds may not call 100% of committed capital. The actual timing of future cash requirements to fund these commitments is generally dependent upon the investment cycle, overall market conditions and the nature and type of industry in which the privately held companies operate. The following table details our total capital commitments, unfunded capital commitments and our ownership percentage in each fund at December 31, 2022:

(Dollars in millions)	SVBFG Capital Commitments	SVBFG Unfunded Commitments	SVBFG Ownership of each Fund
Redwood Evergreen Fund, LP	$ 250	$ 108	100.0 %
CP II, LP (1)	1	—	5.1
Capital Preferred Return Fund, LP	13	—	20.0
Growth Partners, LP	25	1	33.0
Strategic Investors Fund, LP	15	1	12.6
Strategic Investors Fund II, LP	15	1	8.6
Strategic Investors Fund III, LP	15	1	5.9
Strategic Investors Fund IV, LP	12	2	5.0
Strategic Investors Fund V funds	1	—	Various
Other venture capital and private equity fund investments (equity method accounting)	18	5	Various
Debt funds (equity method accounting)	59	—	Various
Other fund investments (2)	275	45	Various
Total	$ 699	$ 164	

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(1) Our ownership includes direct ownership of 1.3 percent and indirect ownership interest of 3.8 percent through our investment in Strategic Investors Fund II, LP.

(2) Represents commitments to 143 funds (primarily venture capital funds) where our ownership interest is generally less than 5.0 percent of the voting interests of each such fund.

At December 31, 2022, we had $3 million of remaining unfunded commitments to venture capital and private equity funds by our consolidated managed funds of funds (including our interest and the NCI).

22. Fair Value of Financial Instruments

Fair Value Measurements

Our AFS securities, derivative instruments and certain non-marketable and other equity securities are financial instruments recorded at fair value on a recurring basis. We make estimates regarding the valuation of assets and liabilities measured at fair value in preparing our consolidated financial statements.

The following fair value hierarchy table presents information about our assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2022:

(Dollars in millions)	Level 1	Level 2	Level 3	Netting Adjustments (1)	Balance at December 31, 2022
Assets					
AFS securities:					
U.S. Treasury securities	$ 16,135	$ —	$ —	$ —	$ 16,135
U.S. agency debentures	—	101	—	—	101
Foreign government debt securities	1,088	—	—	—	1,088
Residential MBS:					
Agency-issued MBS	—	6,603	—	—	6,603
Agency-issued CMO—fixed rate	—	678	—	—	678
Agency-issued CMBS	—	1,464	—	—	1,464
Total AFS securities	17,223	8,846	—	—	26,069
Non-marketable and other equity securities (fair value accounting):					
Non-marketable securities:					
Venture capital and private equity fund investments measured at net asset value	—	—	—	—	257
Other equity securities in public companies	31	1	—	—	32
Total non-marketable and other equity securities (fair value accounting)	31	1	—	—	289
Other assets:					
Derivative assets	—	508	—	(351)	157
Equity warrant assets	—	6	377	—	383
Contingent conversion rights	—	—	12	—	12
Other assets	4	—	—	—	4
Total assets	$ 17,258	$ 9,361	$ 389	$ (351)	$ 26,914
Liabilities					
Derivative liabilities	$ —	$ 556	$ —	$ (223)	$ 333
Other liabilities	4	—	—	—	4
Total liabilities	$ 4	$ 556	$ —	$ (223)	$ 337

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(1) Amounts represent the impact of legally enforceable master netting arrangements and also cash collateral held or placed with the same counterparties.

The following fair value hierarchy table presents information about our assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2021:

(Dollars in millions)	Level 1	Level 2	Level 3	Netting Adjustments (1) (2)	Balance at December 31, 2021
Assets:					
AFS securities:					
U.S. Treasury securities	$ 15,850	$ —	$ —	$ —	$ 15,850
U.S. agency debentures	—	196	—	—	196
Foreign government debt securities	61	—	—	—	61
Residential MBS:					
Agency-issued MBS	—	8,589	—	—	8,589
Agency-issued CMO—fixed rate	—	982	—	—	982
Agency-issued CMBS	—	1,543	—	—	1,543
Total AFS securities	15,911	11,310	—	—	27,221
Non-marketable and other equity securities (fair value accounting):					
Non-marketable securities:					
Venture capital and private equity fund investments measured at net asset value	—	—	—	—	338
Other equity securities in public companies	43	74	—	—	117
Total non-marketable and other equity securities (fair value accounting)	43	74	—	—	455
Other assets:					
Derivative assets (2)	—	288	—	(137)	151
Equity warrant assets	—	8	269	—	277
Other assets	8	—	—	—	8
Total assets	$ 15,962	$ 11,680	$ 269	$ (137)	$ 28,112
Liabilities:					
Derivative liabilities (2)	$ —	$ 238	$ —	$ (120)	$ 118
Other liabilities	8	—	—	—	8
Total liabilities	$ 8	$ 238	$ —	$ (120)	$ 126

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(1) Amounts represent the impact of legally enforceable master netting arrangements and also cash collateral held or placed with the same counterparties.

(2) During the third quarter of 2022, we changed our accounting policy to report the fair values of our derivative assets and liabilities subject to ISDA master netting arrangements on a net basis where a right of setoff exists. The net derivative fair values have been further adjusted for cash collateral received/pledged. The change in accounting policy was applied retrospectively, and prior periods have been revised to conform with current period presentation.

The following table presents additional information about Level 3 assets measured at fair value on a recurring basis for 2022, 2021 and 2020, respectively:

(Dollars in millions)	Beginning Balance	Total Net Gains (Losses) Included in Net Income	Sales/Exits	Issuances	Transfers Out of Level 3	Ending Balance
Year ended December 31, 2022:						
Equity warrant assets (1)	$ 269	$ 153	$ (71)	$ 30	$ (4)	$ 377
Contingent conversion rights (2)	—	(1)	—	13	—	12
Year ended December 31, 2021:						
Equity warrant assets (1)	192	561	(502)	24	(6)	269
Year ended December 31, 2020:						
Equity warrant assets (1)	161	229	(215)	19	(2)	192

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(1) Realized and unrealized gains (losses) are recorded in the line item "Gains on equity warrant assets, net," a component of noninterest income.

(2) Unrealized gains and losses are recorded in the line item "Other noninterest income," a component of noninterest income.

The following table presents the amount of net unrealized gains and losses included in earnings (which is inclusive of NCI) attributable to Level 3 assets still held at December 31, 2022, and December 31, 2021, respectively:

(Dollars in millions)	Year ended December 31, 2022	2021
Other assets:		
Equity warrant assets (1)	$ 111	$ 119
Contingent conversion rights (2)	(1)	—
Total unrealized gains, net	$ 110	$ 119

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(1) Unrealized gains and losses are recorded in the line item "Gains on equity warrant assets, net," a component of noninterest income.
(2) Unrealized gains and losses are recorded in the line item "Other noninterest income," a component of noninterest income.

The extent to which any unrealized gains or losses will become realized is subject to a variety of factors, including, among other things, the expiration of current sales restrictions to which these securities are subject, the actual sales of securities and the timing of such actual sales.

The following table presents quantitative information about the significant unobservable inputs used for certain of our Level 3 fair value measurements at December 31, 2022 and December 31, 2021. We have not included in this table our venture capital and private equity fund investments (fair value accounting) as we use net asset value per share (as obtained from the general partners of the investments) as a practical expedient to determine fair value.

(Dollars in millions)	Fair Value	Valuation Technique	Significant Unobservable Inputs	Input Range	Weighted Average
December 31, 2022:					
Equity warrant assets (private portfolio)	$ 377	Black-Scholes option pricing model	Volatility	23.2% - 48.7%	41.2 %
			Risk-Free interest rate	3.4 - 4.8	4.3
			Marketability discount (2)	16.5	16.5
			Remaining life assumption (3)	40.0	40.0
Contingent conversion rights (private portfolio)	12	Private company equity pricing	(4)	(4)	(4)
December 31, 2021:					
Equity warrant assets (public portfolio)	$ 2	Black-Scholes option pricing model	Volatility	27.8% - 55.0%	43.7 %
			Risk-Free interest rate	0.6 - 1.5	1.1
			Sales restrictions discount (1)	10.0 - 20.0	10.7
Equity warrant assets (private portfolio)	267	Black-Scholes option pricing model	Volatility	24.7 - 55.0	43.0
			Risk-Free interest rate	0.06 - 1.4	0.8
			Marketability discount (2)	20.1	20.1
			Remaining life assumption (3)	40.0	40.0

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(1) We adjust quoted market prices of public companies, which are subject to certain sales restrictions. Sales restriction discounts generally range from 10 percent to 20 percent depending on the duration of the sales restrictions which typically range from three to six months.
(2) Our marketability discount is applied to all private company warrants to account for a general lack of liquidity due to the private nature of the associated underlying company. The quantitative measure used is based upon various option-pricing models. On a quarterly basis, a sensitivity analysis is performed on our marketability discount.
(3) We adjust the contractual remaining term of private company warrants based on our estimate of the actual remaining life, which we determine by utilizing historical data on terminations and exercises. At December 31, 2022, the weighted average contractual remaining term was 6.1 years, compared to our estimated remaining life of 2.4 years. On a quarterly basis, a sensitivity analysis is performed on our remaining life assumption.
(4) In determining the fair value of our private contingent conversion rights portfolio (not valued using the Black-Scholes model), we evaluate a variety of factors related to each underlying private portfolio company including, but not limited to, actual and forecasted enterprise values, the probability of a conversion event occurring and limitations and conversion pricing outlined in the convertible debt agreement. Additionally, we have ongoing communication with the portfolio companies and relationship teams, to determine whether there is a material change in fair value. We use company provided valuation reports, if available, to support our valuation assumptions. These factors are specific to each portfolio company, and a weighted average or range of values of the unobservable inputs is not meaningful.

During 2022, 2021 and 2020, we did not have any transfers between Level 3 and Level 1. All other transfers from Level 3 to Level 2 during 2022, 2021 and 2020 were due to the transfer of equity warrant assets from our private portfolio to our public portfolio (see our Level 3 reconciliation above).

Financial Instruments not Carried at Fair Value

The following fair value hierarchy table presents the estimated fair values of our financial instruments that are not carried at fair value at December 31, 2022 and December 31, 2021:

		Estimated Fair Value			
(Dollars in millions)	Carrying Amount	Total	Level 1	Level 2	Level 3
December 31, 2022:					
Financial assets:					
Cash and cash equivalents	$ 13,803	$ 13,803	$ 13,803	$ —	$ —
HTM securities	91,321	76,169	—	76,169	—
Non-marketable securities not measured at net asset value	441	441	—	—	441
Non-marketable securities measured at net asset value	628	628	—	—	—
Net Loans	73,614	74,602	—	—	74,602
FHLB and FRB stock	720	720	—	—	720
Financial liabilities:					
Short-term borrowings	13,565	13,565	—	13,565	—
Non-maturity deposits (1)	166,416	166,416	166,416	—	—
Time deposits	6,693	6,479	—	6,479	—
FHLB Advances	2,000	2,000	—	2,000	—
3.50% Senior Notes due 2025	349	337	—	337	—
3.125% Senior Notes due 2030	496	412	—	412	—
1.800% Senior Notes due 2031	495	364	—	364	—
2.100% Senior Notes due 2028	497	417	—	417	—
1.800% Senior Notes due 2026	646	570	—	570	—
4.345% Senior Fixed Rate/Floating Rate Notes due 2028	348	331	—	331	—
4.570% Senior Fixed Rate/Floating Rate Notes due 2033	448	397	—	397	—
Junior subordinated debentures	91	96	—	96	—
Off-balance sheet financial assets:					
Commitments to extend credit	—	52	—	—	52
December 31, 2021:					
Financial assets:					
Cash and cash equivalents	$ 14,586	$ 14,586	$ 14,586	$ —	$ —
HTM securities	98,195	97,227	—	97,227	—
Non-marketable securities not measured at net asset value	424	424	—	—	424
Non-marketable securities measured at net asset value	710	710	—	—	—
Net loans	65,854	67,335	—	—	67,335
FHLB and FRB stock	107	107	—	—	107
Financial liabilities:					
Short-term borrowings	71	71	—	71	—
Non-maturity deposits (1)	187,464	187,464	187,464	—	—
Time deposits	1,739	1,728	—	1,728	—
3.50% Senior Notes	349	370	—	370	—
3.125% senior Notes	496	526	—	526	—
1.800% Senior Notes due 2031	494	474	—	474	—
2.100% Senior Notes due 2028	496	501	—	501	—
1.800% Senior Notes due 2026	645	649	—	649	—
Junior subordinated debentures	90	92	—	92	—
Off-balance sheet financial assets:					
Commitments to extend credit	—	47	—	—	47

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(1) Includes noninterest-bearing demand deposits, interest-bearing checking accounts, money market accounts and interest-bearing sweep deposits.

Investments in Entities that Calculate Net Asset Value Per Share

Our investments in debt funds and venture capital and private equity fund investments generally cannot be redeemed. Alternatively, we expect distributions, if any, to be received primarily through IPO and M&A activity of the underlying assets of the fund. Subject to applicable requirements under the Volcker Rule, we do not have any plans to sell any of these fund investments. If we decide to sell these investments in the future, the investee fund's management must approve the buyer before the sale of the investments can be completed. The fair values of the fund investments have been estimated using the net asset value per share of the investments, adjusted for any differences between our measurement date and the date of the fund investment's net asset value by using the most recently available financial information from the investee general partner, for example September 30th for our December 31st consolidated financial statements, adjusted for any contributions paid, distributions received from the investment, and significant fund transactions or market events during the reporting period.

The following table is a summary of the estimated fair values of these investments and remaining unfunded commitments for each major category of these investments as of December 31, 2022:

(Dollars in millions)	Carrying Amount	Fair Value	Unfunded Commitments
Non-marketable securities (fair value accounting):			
Venture capital and private equity fund investments (1)	$ 257	$ 257	$ 18
Non-marketable securities (equity method accounting):			
Venture capital and private equity fund investments (2)	605	605	9
Debt funds (2)	5	5	—
Other investments (2)	18	18	1
Total	$ 885	$ 885	$ 28

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(1) Venture capital and private equity fund investments within non-marketable securities (fair value accounting) include investments made by our managed funds of funds and one of our direct venture funds (consolidated VIEs) and investments in venture capital and private equity fund investments (unconsolidated VIEs). Collectively, these investments in venture capital and private equity funds are primarily in U.S. and global technology and life science/healthcare companies. Included in the fair value and unfunded commitments of fund investments under fair value accounting are $40 million and $2 million, respectively, attributable to NCI. It is estimated that we will receive distributions from the fund investments over the next 10 to 13 years, depending on the age of the funds and any potential extensions of terms of the funds.

(2) Venture capital and private equity fund investments, debt funds, and other fund investments within non-marketable securities (equity method accounting) include funds that invest in or lend money to primarily U.S. and global technology and life science/healthcare companies. It is estimated that we will receive distributions from the funds over the next 5 to 8 years, depending on the age of the funds and any potential extensions of the terms of the funds.

23. Regulatory Matters

SVB Financial and the Bank are subject to various regulatory capital adequacy requirements administered by the Federal Reserve Board and the DFPI. The Federal Deposit Insurance Corporation Improvement Act of 1991 additionally requires that the federal regulatory agencies adopt regulations defining five capital categories for banks: well-capitalized, adequately capitalized, undercapitalized, significantly undercapitalized and critically undercapitalized.

We are also subject to a comprehensive capital framework for U.S. banking organizations established by the federal banking agencies (the “Capital Rules”), which implement the Basel III regulatory capital reforms and changes required by the Dodd-Frank Act. There are three categories of capital under the Capital Rules: CET 1, additional Tier 1 and Tier 2. Pursuant to the Capital Rules, the minimum capital ratios applicable to SVB Financial and the Bank are as follows:

- 4.5% CET 1 capital to risk-weighted assets;
- 6.0% Tier 1 capital (CET 1 plus Additional Tier 1 capital) to risk-weighted assets;
- 8.0% Total capital (Tier 1 plus Tier 2 capital) to risk-weighted assets; and
- 4.0% Tier 1 capital to average consolidated assets (the “leverage ratio”).

We must also meet a 2.5% “buffer” of CET 1 capital to avoid constraints on capital distributions, such as dividends and equity repurchases and certain bonus compensation for executive officers. The severity of the constraints would depend on the amount of the shortfall and the banking organization’s “eligible retained income”.

As of December 31, 2022, both SVB Financial and the Bank exceeded the required ratios under the Capital Rules and were considered “well-capitalized” for regulatory purposes under existing capital guidelines as well. The following table presents the capital ratios for the Company and the Bank under federal regulatory guidelines, compared to the minimum regulatory capital requirements, as of December 31, 2022, and December 31, 2021:

	Capital Ratios			Capital Amounts		
(Dollars in millions)	Actual	Required Minimum (1)	Well Capitalized Minimum	Actual	Required Minimum (1)	Well Capitalized Minimum
December 31, 2022:						
CET1 risk-based capital:						
SVB Financial	12.05 %	7.0 %	N/A	$ 13,697	$ 7,954	N/A
Bank	15.26	7.0	6.5	16,995	7,795	$ 7,238
Tier 1 risk-based capital:						
SVB Financial	15.40	8.5	6.0	17,504	9,658	6,818
Bank	15.26	8.5	8.0	16,995	9,465	8,908
Total risk-based capital:						
SVB Financial	16.18	10.5	10.0	18,380	11,931	11,363
Bank	16.05	10.5	10.0	17,871	11,692	11,135
Tier 1 leverage:						
SVB Financial	8.11	4.0	N/A	17,504	8,630	N/A
Bank	7.96	4.0	5.0	16,995	8,537	10,672
December 31, 2021:						
CET1 risk-based capital:						
SVB Financial	12.09 %	7.0 %	N/A	$ 12,186	$ 7,057	N/A
Bank	14.89	7.0	6.5	14,622	6,875	$ 6,384
Tier 1 risk-based capital:						
SVB Financial	16.08	8.5	6.0	16,206	8,569	6,049
Bank	14.89	8.5	8.0	14,622	8,348	7,857
Total risk-based capital:						
SVB Financial	16.58	10.5	10.0	16,712	10,585	10,081
Bank	15.40	10.5	10.0	15,129	10,313	9,821
Tier 1 leverage:						
SVB Financial	7.93	4.0	N/A	16,206	8,175	N/A
Bank	7.24	4.0	5.0	14,622	8,075	10,094

N/A "Well-Capitalized Minimum" CET1 risk-based capital and Tier 1 leverage ratios are not formally defined under applicable banking regulations for bank holding companies.

(1) The percentages represent the minimum capital ratios plus, the fully phased-in 2.5% CET1 capital conservation buffer under the Capital Rules.

24. Segment Reporting

We have four reportable segments for management reporting purposes: Silicon Valley Bank, SVB Private, SVB Capital and SVB Securities. The results of our reportable and operating segments are based on our internal management reporting process.

We report segment information based on the “management” approach. The management approach designates the internal reporting used by management for making decisions and assessing performance as the source of our reporting segments. During the quarter ended March 31, 2022, we reevaluated our segments. Based on this reevaluation, the Premium Wine reporting division was moved from Silicon Valley Bank to the SVB Private segment. These changes were made to reflect the manner in which the Company is organized for purposes of making operating decisions and assessing performance. For the year ended December 31, 2021, prior period balances for our Premium Wine reporting division previously reported in "Silicon Valley Bank" have been recast to the reportable segment “SVB Private” to properly reflect organizational changes effective January 1, 2022. The reclassification of historical segment information has no effect on the Company's previously reported consolidated balance sheets, statements of income, or cash flows, and the change did not have any impact on the determination of the reporting units used to assess impairment under ASC 350, *Intangibles - Goodwill and Other*.

Our Silicon Valley Bank and SVB Private segments' primary source of revenue is from net interest income, which is primarily the difference between interest earned on loans, net of FTP and interest paid on deposits, net of FTP. Accordingly, these segments are reported using net interest income, net of FTP. FTP is an internal measurement framework designed to assess the financial impact of a financial institution’s sources and uses of funds. It is the mechanism by which a funding credit is given for deposits raised, and a funding charge is made for funded loans. FTP is calculated at an instrument level based on account characteristics.

We also evaluate performance based on provision for credit losses, noninterest income and noninterest expense, which are presented as components of segment operating profit or loss. In calculating each operating segment’s noninterest expense, we consider the direct costs incurred by the operating segment as well as certain allocated direct costs. As part of this review, we allocate certain corporate overhead costs to a corporate account. We do not allocate income tax expense, the provisions for unfunded credit commitments, or HTM securities (included in provision for credit losses) to our segments. Additionally, our management reporting model is predicated on average asset balances; therefore, period-end asset balances are not presented for segment reporting purposes. Changes in an individual client’s primary relationship designation have resulted, and in the future may result, in the inclusion of certain clients in different segments in different periods.

Unlike financial reporting, which benefits from the comprehensive structure provided by GAAP, our internal management reporting process is highly subjective, as there is no comprehensive, authoritative guidance for management reporting. Our management reporting process measures the performance of our operating segments based on our internal operating structure, which is subject to change from time to time, and is not necessarily comparable with similar information for other financial services companies.

For reporting purposes, SVB Financial Group has four operating segments for which we report our financial information:

- **Silicon Valley Bank** is our commercial bank which offers products and services provided by the Bank and its subsidiaries to commercial clients in key innovation markets. The Bank provides solutions to the financial needs of commercial clients through credit, treasury management, foreign exchange, trade finance and other services. In addition, the Bank and its subsidiaries offer a variety of investment services and solutions to its clients that enable them to effectively manage their assets. Our commercial bank consists of services provided to clients in the Healthcare and Technology industries, as well as private equity and venture capital firms, and includes clients from international operations in EMEA, Asia and Canada.
- **SVB Private** is our private bank and wealth management segment of the Bank. SVB Private provides a range of personal financial solutions for consumers. Our clients are primarily private equity/venture capital professionals and executive leaders of the innovation companies they support as well as high net worth clients acquired from Boston Private and our premium wine clients. We offer a customized suite of private banking services, including mortgages, home equity lines of credit, restricted and private stock loans, capital call lines of credit, other secured and unsecured lending products and vineyard development loans, as well as planning-based financial strategies, wealth management, family office, financial planning, tax planning and trust services. In addition, we provide real estate secured loans to eligible employees through our EHOP.
- **SVB Capital** is the funds management business of SVB Financial Group, which focuses primarily on venture capital investments. SVB Capital manages funds (primarily venture capital funds) on behalf of third-party limited partners and, on a more limited basis, SVB Financial Group. The SVB Capital family of funds is comprised of direct venture funds that invest in companies and fund of funds that invest in other venture capital funds, as well as debt funds that provide lending and other financing solutions. SVB Capital generates income for the Company primarily from investment returns (including carried interest allocations) and management fees.

- **SVB Securities** is an investment bank focused on the innovation economy and operates as a wholly-owned subsidiary of SVB Financial Group. SVB Securities provides investment banking services across all major sub-sectors of Healthcare and Technology. Healthcare sub-sectors include Biopharma, Digital Health and HealthTech, Healthcare Services, Medical Devices and Tools and Diagnostics. Technology sub-sectors include Consumer Internet, Commerce Enablement and Marketing Software, Digital Infrastructure and Tech-Enabled Services, Education Technology, Enterprise Software, Industrial Technology and FinTech. SVB Securities focuses on four main product and service offerings: Capital Raising, M&A Advisory, Equity Research and Sales and Trading.

The summary financial results of our operating segments are presented along with a reconciliation to our consolidated results.

Our segment information for 2022, 2021 and 2020 is as follows:

(Dollars in millions)	Silicon Valley Bank (1)	SVB Private	SVB Capital (1)	SVB Securities (1)	Other Items (2) (3)	Total
Year ended December 31, 2022						
Net interest income	$ 4,118	$ 407	$ —	$ 3	$ (43)	$ 4,485
Provision for credit losses	(277)	(10)	—	—	(133)	(420)
Noninterest income	1,107	96	(110)	505	130	1,728
Noninterest expense (4)	(1,557)	(361)	(70)	(603)	(1,030)	(3,621)
Income (loss) before income tax expense (5)	$ 3,391	$ 132	$ (180)	$ (95)	$ (1,076)	$ 2,172
Total average loans, amortized cost	$ 54,647	$ 14,934	$ —	$ —	$ 708	$ 70,289
Total average assets (6) (7)	175,221	16,637	942	936	22,367	216,103
Total average deposits	172,106	12,884	—	—	771	185,761
Year ended December 31, 2021						
Net interest income (8)	$ 2,914	$ 226	$ —	$ 1	$ 38	$ 3,179
Provision for credit losses	(55)	(14)	—	—	(54)	(123)
Noninterest income	706	58	487	608	879	2,738
Noninterest expense (4) (8)	(1,266)	(223)	(71)	(561)	(949)	(3,070)
Income (loss) before income tax expense (5) (8)	$ 2,299	$ 47	$ 416	$ 48	$ (86)	$ 2,724
Total average loans, amortized cost (8)	$ 43,145	$ 9,986	$ —	$ —	$ 1,416	$ 54,547
Total average assets (6) (7) (8)	140,362	11,171	700	830	12,948	166,011
Total average deposits (8)	138,057	8,924	—	—	966	147,947
Year ended December 31, 2020						
Net interest income (8)	$ 1,990	$ 112	$ —	$ 1	$ 54	$ 2,157
Provision for credit losses	(166)	(21)	—	—	(33)	(220)
Noninterest income	604	5	226	497	508	1,840
Noninterest expense (4) (8)	(1,011)	(55)	(51)	(379)	(539)	(2,035)
Income (loss) before income tax expense (5) (8)	$ 1,417	$ 41	$ 175	$ 119	$ (10)	$ 1,742
Total average loans, amortized cost (8)	$ 30,116	$ 5,298	$ —	$ —	$ 1,852	$ 37,266
Total average assets (6) (7) (8)	73,929	5,335	437	557	5,534	85,792
Total average deposits (8)	71,911	2,388	—	—	717	75,016

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(1) Silicon Valley Bank’s, SVB Capital’s and SVB Securities' components of NII, noninterest income, noninterest expense and total average assets are shown net of NCI for all periods presented. NCI is included within "Other Items."

(2) The "Other Items" column reflects the adjustments necessary to reconcile the results of the operating segments to the consolidated financial statements prepared in conformity with GAAP. NII consists primarily of interest earned from our fixed income investment portfolio, net of FTP. Noninterest income consists primarily of gains or losses on equity warrant assets, gains or losses on the sale of AFS securities and gains or losses on equity securities from exercised warrant assets. Noninterest expense consists primarily of expenses associated with corporate support functions such as finance, human resources, marketing, legal and other expenses.

(3) Noninterest income included in “Other Items” decreased $749M in 2022. The decrease is driven by lower warrant and investment gains.

(4) The Silicon Valley Bank segment includes direct depreciation and amortization of $49 million, $34 million and $25 million for December 31, 2022, December 31, 2021, and December 31, 2020, respectively.

(5) The internal reporting model used by management to assess segment performance does not calculate income tax expense by segment. Our effective tax rate is a reasonable approximation of the segment rates.

(6) Total average assets equal the greater of total average assets or the sum of total average liabilities and total average stockholders’ equity for each segment to reconcile the results to the consolidated financial statements prepared in conformity with GAAP.

(7) Included in the total average assets is goodwill of $174 million and $138 million for SVB Securities for the year ended December 31, 2022, and December 31, 2021, respectively, and $201 million and $87 million for SVB Private for the years ended December 31, 2022, and December 31, 2021.

(8) For the years ended December 31, 2022, December 31, 2021, and December 31, 2020, prior period balances for our Premium Wine reporting division previously reported in "Silicon Valley Bank" have been allocated to the reportable segment “SVB Private” to properly reflect organizational changes effective January 1, 2022. The reallocation had no impact on the "Total" amount.

25. Parent Company Only Condensed Financial Information

The condensed balance sheets of SVB Financial at December 31, 2022, and December 31, 2021, and the related condensed statements of income, comprehensive income and cash flows for December 31, 2022, December 31, 2021, and December 31, 2020, are presented below:

Condensed Balance Sheets

	December 31,	
(Dollars in millions)	**2022**	**2021**
Assets:		
Cash and cash equivalents	$ 2,258	$ 2,324
Investment securities	491	731
Loans, amortized cost	1	1
Lease right-of-use assets	102	82
Other assets	475	387
Investment in subsidiaries:		
Bank subsidiary	15,456	14,795
Nonbank subsidiaries	896	894
Total assets	$ 19,679	$ 19,214
Liabilities and SVBFG stockholders’ equity:		
Long-term debt	$ 3,370	$ 2,570
Lease liabilities	135	113
Other liabilities	170	295
Total liabilities	$ 3,675	$ 2,978
SVBFG stockholders’ equity	16,004	16,236
Total liabilities and SVBFG stockholders’ equity	$ 19,679	$ 19,214

Condensed Statements of Income

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**
Interest income	$ 1	$ 3	$ 3
Interest expense	(91)	(48)	(22)
Dividend income from bank subsidiary	294	—	50
Gains on equity warrant assets, net	146	554	227
Gains (losses) on investment securities, net	(179)	197	158
Fund management fees and other noninterest income	54	68	62
General and administrative expenses	(284)	(298)	(121)
Income tax benefit (expense)	143	(212)	(146)
Income before net income of subsidiaries	84	264	211
Equity in undistributed net income of bank subsidiary	1,741	1,294	776
Equity in undistributed net income (loss) of nonbank subsidiaries	(153)	275	221
Net income before preferred stock dividend	$ 1,672	$ 1,833	$ 1,208
Preferred stock dividends	(163)	(63)	(17)
Net income available to common stockholders	$ 1,509	$ 1,770	$ 1,191

Condensed Statements of Comprehensive Income

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**
Net income before preferred stock dividend	$ 1,672	$ 1,833	$ 1,208
Other comprehensive income (loss), net of tax:			
Foreign currency translation gains (losses)	(37)	(1)	12
Changes in unrealized holding gains (losses) on AFS securities	(39)	(3)	—
Changes in fair value on bank cash flow hedges, net of reclassification adjustments in bank net income	(6)	(46)	131
Equity in other comprehensive income (loss) of bank and nonbank subsidiaries	(1,883)	(341)	395
Other comprehensive income (loss), net of tax	(1,965)	(391)	538
Total comprehensive income	$ (293)	$ 1,442	$ 1,746

Condensed Statements of Cash Flows

	Year ended December 31,		
(Dollars in millions)	**2022**	**2021**	**2020**
Cash flows from operating activities:			
Net income before preferred stock dividend	$ 1,672	$ 1,833	$ 1,208
Adjustments to reconcile net income to net cash provided by (used for) operating activities:			
Gains on equity warrant assets, net	(146)	(554)	(227)
Gains (losses) on investment securities, net	179	(197)	(158)
Gains on derivatives, net	—	—	(30)
Distributions of earnings from investment securities	33	60	65
Net income of bank subsidiary	(2,035)	(1,294)	(826)
Net income (loss) on nonbank subsidiaries	153	(275)	(221)
Cash dividends from bank subsidiary	294	—	50
Amortization of share-based compensation	183	136	84
(Increase) decrease in other assets	35	(40)	17
Increase (decrease) in other liabilities	(129)	58	99
Other, net	1	2	14
Net cash provided by (used for) operating activities	240	(271)	75
Cash flows from investing activities:			
Net decrease in investment securities from purchases, sales and maturities	49	533	123
Net decrease in loans	—	—	15
Increase in investment in bank subsidiary	(773)	(1,240)	(69)
Capital infusion in bank subsidiary	—	(5,750)	(700)
(Increase) decrease in investment in nonbank subsidiaries	(192)	47	4
Business acquisitions	—	1,081	(27)
Net cash used for investing activities	(916)	(5,329)	(654)
Cash flows from financing activities:			
Proceeds from issuance long-term debt	795	1,636	495
Proceeds from the issuance of common stock, net	(22)	2,374	31
Net proceeds from the issuance of preferred stock	—	3,306	—
Payment of preferred stock dividends	(163)	(63)	(17)
Common stock repurchase	—	—	(60)
Net cash provided by financing activities	610	7,253	449
Net increase (decrease) in cash and cash equivalents	(66)	1,653	(130)
Cash and cash equivalents at beginning of period	2,324	671	801
Cash and cash equivalents at end of period	$ 2,258	$ 2,324	$ 671

26. Legal Matters

Certain lawsuits and claims arising in the ordinary course of business have been filed or are pending against us and/or our affiliates, and we may from time to time be involved in other legal or regulatory proceedings. In accordance with applicable accounting guidance, we establish accruals for all such matters, including expected settlements, when we believe it is probable that a loss has been incurred and the amount of the loss is reasonably estimable. When a loss contingency is not both probable and estimable, we do not establish an accrual. Any such loss estimates are inherently uncertain, based on currently available information and are subject to management's judgment and various assumptions. Due to the inherent subjectivity of these estimates and unpredictability of outcomes of legal proceedings, any amounts accrued may not represent the ultimate resolution of such matters.

To the extent we believe any potential loss relating to such matters may have a material impact on our liquidity, consolidated financial position, results of operations, and/or our business as a whole and is reasonably possible but not probable, we aim to disclose information relating to such potential loss. Assessments of litigation and claims exposure are difficult because they involve inherently unpredictable factors including, but not limited to, the following: (i) whether the proceeding is in the early stages of litigation, (ii) whether damages are unspecified, unsupported, or uncertain, (iii) whether there is a potential for punitive or other pecuniary damages, (iv) whether the matter involves legal uncertainties, including novel issues of law, (v) whether the matter involves multiple parties and/or jurisdictions, (vi) whether discovery has not begun or is not complete, (vii) whether meaningful settlement discussions have commenced and (viii) whether the lawsuit involves class allegations. Assessments of class action litigation, which is generally more complex than other types of litigation, are particularly difficult, especially in the early stages of the proceeding when it is not known whether a class will be certified or how a potential class, if certified, will be defined. As a result, even if a loss is reasonably possible, the Company may be unable to estimate reasonably possible losses with respect to some matters.

We also aim to disclose information relating to any material potential loss that is probable but not reasonably estimable. In such cases, where reasonably practicable, we aim to provide an estimate of loss or range of potential loss. No disclosures are generally made for any loss contingencies that are deemed to be remote.

Silicon Valley Bank is among the lenders named as defendants in a complaint originally filed on September 27, 2016 by Unicom Systems, Inc. ("Unicom") in Los Angeles County Superior Court. The lawsuit alleges breach of the syndicated 2015 Credit Agreement between Unicom and the defendants, breach of the implied covenant of good faith and fair dealing, and seeks monetary damages and declaratory relief. Pursuant to the Credit Agreement and California law, the matter has been referred to a duly appointed judicial referee for trial. The parties have engaged in extensive fact discovery, which is now complete, with expert witness depositions to follow in the next few months. Trial is currently scheduled to take place over a three week period in October and November 2023.

The Company currently estimates that it is reasonably possible that it may experience a loss in relation to the Unicom matter. However, for various reasons including the current stage of the proceedings, the uncertainty regarding damage claims and certain of the other factors noted above, the Company is unable to estimate the reasonably possible loss or range of losses at this time.

Based upon information available to us, our review of lawsuits and claims filed or pending against us to date and consultation with our outside legal counsel, we have not recognized a material accrual liability for any such matters, nor do we currently expect that these matters will result in a material liability to the Company. However, the outcome of litigation and other legal and regulatory matters is inherently uncertain, and it is possible that one or more of such matters currently pending or threatened could have an unanticipated material adverse effect on our liquidity, consolidated financial position, results of operations and/or our business as a whole, in the future.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

(a) Disclosure Controls and Procedures

Disclosure controls and procedures are the controls and other procedures that are designed to ensure that information required to be disclosed in the reports that the Company files or submits under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms. Disclosure controls and procedures include, among other things, processes, controls and procedures designed to ensure that information required to be disclosed in the reports that the Company files or submits under the Exchange Act is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

The Company carried out an evaluation, under the supervision and with the participation of management, including the Chief Executive Officer and the Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2022, pursuant to Exchange Act Rule 13a-15(b). Based on this evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures were effective as of December 31, 2022.

(b) Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting at the Company. Our internal control over financial reporting is a process designed under the supervision of the Chief Executive Officer and the Chief Financial Officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's financial statements for external reporting purposes in accordance with GAAP. A company's internal control over financial reporting includes policies and procedures that (i) pertain to the maintenance of records that accurately and fairly reflect, in reasonable detail, transactions and dispositions of the company's assets, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP and that receipts and expenditures are being made only in accordance with authorization of management and the directors of the company and (iii) 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 Company's financial statements.

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

As of December 31, 2022, the Company carried out an assessment, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the Company's internal control over financial reporting pursuant to Rule 13a-15(c), as adopted by the SEC under the Exchange Act. In evaluating the effectiveness of the Company's internal control over financial reporting, management used the framework established in "Internal Control-Integrated Framework (2013)," issued by the COSO. Based on this assessment, management has concluded that, as of December 31, 2022, the Company's internal control over financial reporting was effective.

KPMG LLP, the independent registered public accounting firm that audited the consolidated financial statements of the Company included in this Annual Report on Form 10-K, has issued an attestation report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2022. The report, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2022, is included in "Consolidated Financial Statements and Supplementary Data" under Part II, Item 8 of this report under the heading "Report of Independent Registered Public Accounting Firm."

(c) Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in management's evaluation during the fourth quarter of the period covered by this Annual Report on Form 10-K that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

PART III.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information set forth under the sections titled "Proposal No. 1-Election of Directors," "Information on Executive Officers," "Board Committees," and "Corporate Governance and Board Matters" contained in the definitive proxy statement for SVB Financial's 2023 Annual Meeting of Stockholders is incorporated herein by reference.

We have a Code of Conduct that applies to all of our directors, executives and employees, including our principal executive officer and senior financial officers. A copy of the Code of Conduct is available on our website at www.svb.com under "About Us-Investor Relations-Governance," or can be obtained without charge by any person requesting it. To request a copy of our Code of Conduct, please contact the Corporate Secretary by mail at SVB Financial Group, 3003 Tasman Drive, Santa Clara, California 95054, by telephone at (408) 654-7400 or by email at CorporateSecretary@svb.com.

We intend to disclose any waivers from our Code of Conduct granted to our directors, executive officers and senior financial officers, and any material substantive changes to our Code of Conduct by posting such information on our website. No such waivers or substantive changes were made during fiscal year 2022.

ITEM 11. EXECUTIVE COMPENSATION

The information set forth under the sections titled "Information on Executive Officers," "Compensation Discussion and Analysis," "Compensation for Named Executive Officers," "Compensation for Directors," "Compensation Committee Interlocks and Insider Participation" and "Compensation Committee Report" contained in the definitive proxy statement for SVB Financial's 2023 Annual Meeting of Stockholders is incorporated herein by reference.

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

The information set forth under the sections titled "Security Ownership of Directors and Executive Officers" and "Security Ownership of Principal Stockholders" contained in the definitive proxy statement for SVB Financial's 2023 Annual Meeting of Stockholders is incorporated herein by reference.

Our stockholders have approved each of our active equity compensation plans. The following table provides certain information as of December 31, 2022, with respect to our equity compensation plans:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (1)	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (2)
Equity compensation plans approved by stockholders	489,642	$ 295.48	2,543,343
Equity compensation plans not approved by stockholders	N/A	N/A	N/A
Total	489,642	$ 295.48	2,543,343

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(1) Represents options granted under our 2006 Equity Incentive Plan. This number does not include securities to be issued for unvested restricted stock units of 1,082,452 shares.

(2) Includes shares available for issuance under our 2006 Equity Incentive Plan and 907,303 shares available for issuance under the ESPP. This amount excludes securities already granted under our 2006 Equity Incentive Plan (as discussed above).

For additional information concerning our equity compensation plans, refer to Note 5—"Share-Based Compensation" of the "Notes to the Consolidated Financial Statements" under Part II, Item 8 of this report.

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

The information set forth under the sections titled "Certain Relationships and Related Transactions" and "Corporate Governance and Board Matters-Board Independence and Leadership" in the definitive proxy statement for SVB Financial's 2023 Annual Meeting of Stockholders is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information set forth under the section titled "Principal Audit Fees and Services" contained in the definitive proxy statement for SVB Financial's 2023 Annual Meeting of Stockholders is incorporated herein by reference.

PART IV.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements and Exhibits:

Page

(1) **Financial Statements.** The following consolidated financial statements of the registrant and its subsidiaries are included in Part II Item 8:

Report of Independent Registered Public Accounting Firm 92
Consolidated Balance Sheets as of December 31, 2022 and 2021 95
Consolidated Statements of Income for the three years ended December 31, 2022, 2021 and 2020 96
Consolidated Statements of Comprehensive Income for the three years ended December 31, 2022, 2021 and 2020 97
Consolidated Statements of Stockholders' Equity for the three years ended December 31, 2022, 2021 and 2020 98
Consolidated Statements of Cash Flows for the three years ended December 31, 2022, 2021 and 2020 99
Notes to the Consolidated Financial Statements 100

(2) **Financial Statement Schedule.** The consolidated financial statements and supplementary data are contained in Part II Item 8. All schedules other than as set forth above are omitted because of the absence of the conditions under which they are required or because the required information is included in the consolidated financial statements or related notes in Part II Item 8. 91

(3) **Exhibits.** 177

ITEM 16. FORM 10-K SUMMARY

None.

INDEX TO EXHIBITS

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
2.1	Agreement and Plan of Merger by and between SVB Financial Group and Boston Private Financial Holdings, Inc.	8-K	000-39154	2.1	January 8, 2021	
3.1	Amended and Restated Certificate of Incorporation	10-Q	000-15637	3.1	May 9, 2019	
3.2	Amended and Restated Bylaws, effective as of November 23, 2022	8-K	001-39154	3.2	November 23, 2022	
3.3	Certificate of Designations of the Registrant with respect to the Series A Preferred Stock, dated December 6, 2019, filed with the Secretary of State of the State of Delaware and effective December 6, 2019	8-A	000-15637	3.2	December 6, 2019	
3.4	Certificate of Designations of the Registrant with respect to the Series B Preferred Stock, dated February 1, 2021, filed with the Secretary of State of the State of Delaware and effective February 1, 2021	8-K	000-39154	3.1	February 2, 2021	
4.1	Officer's Certificate dated February 2, 2021, relating to the 1.800% Senior Note due 2031	8-K	000-39154	4.6	February 2, 2021	
4.2	Officer's Certificate, dated as of June 5, 2020, relating to the 3.125% Senior Note Due 2030	8-K	000-39154	4.2	June 5, 2020	
4.3	Indenture, dated September 20, 2010, by and between SVB Financial and U.S. Bank National Association, as trustee	8-K	000-15637	4.1	September 20, 2010	
4.4	Officer's Certificate, dated as of January 29, 2015, relating to the 3.50% Senior Note Due 2025	8-K	000-15637	4.2	January 29, 2015	
4.5	Deposit Agreement, dated December 9, 2019, among SVB Financial Group and American Stock Transfer and Trust Company, LLC, acting as depositary, and the holders from time to time of the Depositary Receipts described therein	8-K	000-15637	4.2	December 9, 2019	
4.6	Form of 3.50% Senior Note due 2025	8-K	000-15637	4.2	January 29, 2015	
4.7	Certificate of Designation of the Registrant with respect to the Series C Preferred Stock, dated May 12, 2021, filed with the Secretary of State of Delaware and effective May 12, 2021	8-K	001-39154	3.1	May 13, 2021	
4.8	Form of 2.100% Senior Notes due 2028	8-K	001-39154	4.7	May 13, 2021	
4.9	Certificate of Designation of the Registrant with respect to the Series D Preferred Stock, dated October 27, 2021, filed with the Secretary of State of Delaware and effective October 27, 2021	8-K	001-39154	3.1	October 28, 2021	
4.10	Certificate of Designation of the Registrant with respect to the Series E Preferred Stock, dated October 27, 2021, filed with the Secretary of State of Delaware and effective October 27, 2021	8-K	001-39154	3.2	October 28, 2021	
4.11	Form of 1.800% Senior Notes due 2026	8-K	001-39154	4.7	October 28, 2021	
4.12	First Supplemental Indenture, dated April 28, 2022, by and between SVB Financial and U.S. Bank Trust Company, National Association, as trustee	8-K	001-39154	4.2	April 29, 2022	
4.13	Officer's Certificate, dated April 29, 2022, relating to the 4.345% Senior Fixed Rate/Floating Rate Notes due 2028 and 4.570% Senior Fixed Rate/Floating Rate Notes due 2033	8-K	001-39154	4.3	April 29, 2022	
4.14	Form of 4.345% Senior Fixed Rate/Floating Rate Notes due 2028	8-K	001-39154	4.4	April 29, 2022	
4.15	Form of 4.570% Senior Fixed Rate/Floating Rate Notes due 2033	8-K	001-39154	4.5	April 29, 2022	
4.16	Description of Registrant's Securities					X
*10.1	Office Lease Agreement, dated as of September 15, 2004, between CA-Lake Marriott Business Park Limited Partnership and Silicon Valley Bank: 3001, 3003 and 3101 Tasman Drive, Santa Clara, CA 95054	8-K	000-15637	10.28	September 20, 2004	
*10.2	1999 Employee Stock Purchase Plan	10-Q	000-15637	10.1	August 8, 2016	
*10.3	Form of Indemnification Agreement	10-Q	000-15637	10.7	November 6, 2009	
*10.4	Incentive Compensation Plan	10-Q	000-15637	10.1	August 7, 2018	
*10.5	Deferred Compensation Plan	10-K	000-15637	10.7	February 28, 2019	
*10.6	Change in Control Severance Plan	8-K	000-15637	10.14	March 15, 2012	
*10.7	2006 Equity Incentive Plan	10-K	001-39154	10.19	March 1, 2021	
*10.8	Offer Letter dated November 2, 2006, for Michael Descheneaux	8-K	000-15637	10.31	April 17, 2007	
*10.9	Offer Letter dated April 25, 2007, for Michael Descheneaux	8-K/A	000-15637	10.32	May 2, 2007	
*10.10	Form of Letter Agreement with Michael Descheneaux re: Salary Changes	8-K	000-15637	10.31	May 14, 2009	
*10.11	Form of Nonqualified Stock Option Agreement under 2006 Equity Incentive Plan+	10-K	000-15637	10.35	February 27, 2014	
*10.12	UK Sub-Plan of the 2006 Equity Incentive Plan+	10-Q	000-15637	10.3	May 9, 2014	
*10.13	Israeli Sub-Plan of the 2006 Equity Incentive Plan+	10-Q	000-15637	10.5	May 9, 2014	
*10.14	Form of Nonqualified Stock Option Agreement under 2006 Equity Incentive Plan++	8-K	000-15637	10.3	January 9, 2015	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
*10.15	Form of Restricted Stock Unit Agreement under 2006 Equity Incentive Plan (Subject to Time-Based Vesting)++	8-K	000-15637	10.4	January 9, 2015	
*10.16	Form of Restricted Stock Unit Agreement under 2006 Incentive Plan (Subject to Performance-Based Vesting)++	8-K	000-15637	10.5	January 9, 2015	
*10.17	Form of Incentive Stock Option Agreement under 2006 Equity Incentive Plan	10-K	001-39154	10.18	March 1, 2021	
*10.18	Form of Nonqualified Stock Option Agreement under 2006 Equity Incentive Plan+++	10-K	001-39154	10.19	March 1, 2021	
*10.19	Form of Restricted Stock Unit Agreement under 2006 Equity Incentive Plan (Subject to Time-Based Vesting)+++	10-K	001-39154	10.20	March 1, 2021	
*10.20	Form of Restricted Stock Unit Agreement under 2006 Equity Incentive Plan (Subject to Performance-Based Vesting)+++	10-K	001-39154	10.21	March 1, 2021	
*10.21	Form of Restricted Stock Award Agreement under 2006 Equity Incentive Plan+++	10-K	001-39154	10.22	March 1, 2021	
*10.22	Form of Stock Appreciation Rights Agreement under 2006 Equity Incentive Plan+++	10-K	001-39154	10.23	March 1, 2021	
*10.23	Form of Incentive Stock Option Agreement under 2006 Equity Incentive Plan (Continued Vesting Upon Retirement)+++	10-K	001-39154	10.24	March 1, 2021	
*10.24	Form of Nonqualified Stock Option Agreement under 2006 Equity Incentive Plan (Continued Vesting Upon Retirement)+++	10-K	001-39154	10.25	March 1, 2021	
*10.25	Form of Restricted Stock Unit Agreement under 2006 Equity Incentive Plan (Subject to Time-Based Vesting) (Continued Vesting Upon Retirement)+++	10-K	001-39154	10.26	March 1, 2021	
*10.26	Form of Restricted Stock Unit Agreement under 2006 Incentive Plan (Subject to Performance-Based Vesting) (Continued Vesting Upon Retirement)+++	10-K	001-39154	10.27	March 1, 2021	
*10.27	Form of Restricted Stock Award Agreement under 2006 Equity Incentive Plan (Continued Vesting Upon Retirement)+++	10-K	001-39154	10.28	March 1, 2021	
*10.28	Form of Stock Appreciation Rights Agreement under 2006 Equity Incentive Plan (Continued Vesting Upon Retirement)+++	10-K	001-39154	10.29	March 1, 2021	
*10.29	Form of U.K.-Approved Stock Option Agreement++	8-K	000-15637	10.8	January 9, 2015	
*10.30	Service Agreement, dated July 14, 2009, between SVB Financial Group UK Limited and Philip Cox	10-K	000-15637	10.47	February 26, 2015	
*10.31	Offer Agreement dated April 28, 2017, by and between Daniel Beck and SVB Financial Group	8-K	000-15637	10.1	May 12, 2017	
*10.32	Letter Agreement dated May 11, 2017, by and between Michael Descheneaux and SVB Financial Group	8-K	000-15637	10.2	May 12, 2017	
*10.33	Amended and Restated 401K and Employee Stock Ownership Plan	10.-K	001-39154	10.33	March 1, 2022	
*10.34	Israeli Sub-Plan of the 1999 Employee Stock Purchase Plan++++	10-K	001-39154	10.34	March 1, 2022	
*10.35	Boston Private Financial Holdings, Inc. 2020 Omnibus Incentive Plan	S-8	333-237886	99.1	April 29, 2020	
*10.36	Boston Private Financial Holdings, Inc. 2010 Inducement Stock Plan	8-K	000-17089	10.2	June 8, 2010	
*10.37	Third Amendment to Boston Private Financial Holdings, Inc. 2010 Inducement Stock Plan	8-K	001-35070	10.1	November 20, 2018	
*10.38	Boston Private Financial Holdings, Inc. Amended and Restated 2009 Stock Option and Incentive Plan	8-K	001-35070	99.1	April 17, 2014	
*10.39	Boston Private Financial Holdings, Inc. 2009 Stock Option and Incentive Plan	8-K	000-17089	99.1	April 27, 2009	
21.1	Subsidiaries of SVB Financial					X
23.1	Consent of KPMG LLP, independent registered public accounting firm					X
31.1	Rule 13a-14(a) / 15(d)-14(a) Certification of Principal Executive Officer					X
31.2	Rule 13a-14(a) / 15(d)-14(a) Certification of Principal Financial Officer					X
32.1	Section 1350 Certifications					X
101.INS	XBRL Instance Document					X
101.SCH	XBRL Taxonomy Extension Schema Document					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document					X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document					X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document					X

*	Denotes management contract or any compensatory plan, contract or arrangement.
+	Forms applicable to grants made under the 2006 Equity Incentive Plan during 2014.
++	Forms applicable to grants made under the 2006 Equity Incentive Plan beginning in 2015 to 2020.
+++	Forms applicable to grants made under the 2006 Equity Incentive Plan beginning in 2021.
++++	Form applicable to stock purchase rights granted under the 1999 Employee Stock Purchase Plan beginning in 2022.

SIGNATURES

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

SVB Financial Group

/s/ GREG W. BECKER
Greg W. Becker
President and Chief Executive Officer
Dated: February 24, 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 registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/s/ BEVERLY KAY MATTHEWS **Beverly Kay Matthews**	Chair of the Board of Directors and Director	February 24, 2023
/s/ GREG W. BECKER **Greg W. Becker**	President, Chief Executive Officer and Director (Principal Executive Officer)	February 24, 2023
/s/ DANIEL J. BECK **Daniel J. Beck**	Chief Financial Officer (Principal Financial Officer)	February 24, 2023
/s/ KAREN HON **Karen Hon**	Chief Accounting Officer (Principal Accounting Officer)	February 24, 2023
/s/ ERIC A. BENHAMOU **Eric A. Benhamou**	Director	February 24, 2023
/s/ ELIZABETH BURR **Elizabeth Burr**	Director	February 24, 2023
/s/ RICHARD D. DANIELS **Richard D. Daniels**	Director	February 24, 2023
/s/ ALISON DAVIS **Alison Davis**	Director	February 24, 2023
/s/ JOEL P. FRIEDMAN **Joel P. Friedman**	Director	February 24, 2023
/s/ THOMAS KING **Thomas King**	Director	February 24, 2023
/s/ JEFFREY N. MAGGIONCALDA **Jeffrey N. Maggioncalda**	Director	February 24, 2023
/s/ MARY J. MILLER **Mary J. Miller**	Director	February 24, 2023
/s/ KATE D. MICTHELL **Kate D. Mitchell**	Director	February 24, 2023
/s/ GAREN K. STAGLIN **Garen K. Staglin**	Director	February 24, 2023