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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended June 30, 2020
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: 000-15637

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)

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 is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

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

Title of Each Class	Trading Symbol	Name of 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

At July 31, 2020, 51,760,939 shares of the registrant's common stock ($0.001 par value) were outstanding.

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Glossary of Acronyms that may be used in this Report

AFS— Available-for-Sale

ASC— Accounting Standards Codification

ASU— Accounting Standards Update

CECL — Current Expected Credit Losses

CET— Common Equity Tier

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

FASB— Financial Accounting Standards Board

FDIC— Federal Deposit Insurance Corporation

FHLB— Federal Home Loan Bank

FRB— Federal Reserve Bank

FTE— Full-Time Employee

FTP— Funds Transfer Pricing

GAAP— Accounting principles generally accepted in the United States of America

HTM— Held-to-Maturity

IASB— International Accounting Standards Board

IPO— Initial Public Offering

IRS— Internal Revenue Service

IT— Information Technology

LIBOR— London Interbank Offered Rate

M&A— Merger and Acquisition

PPP — Paycheck Protection Program

SEC— Securities and Exchange Commission

SPD-SVB— SPD Silicon Valley Bank Co., Ltd. (the Bank's joint venture bank in China)

TDR— Troubled Debt Restructuring

UK— United Kingdom

VIE— Variable Interest Entity

PART I - FINANCIAL INFORMATION

ITEM 1. INTERIM CONSOLIDATED FINANCIAL STATEMENTS

SVB FINANCIAL GROUP AND SUBSIDIARIES
INTERIM CONSOLIDATED BALANCE SHEETS (UNAUDITED)

(Dollars in thousands, except par value and share data)	June 30, 2020	December 31, 2019
Assets:		
Cash and cash equivalents	$ 14,202,106	$ 6,781,783
Available-for-sale securities, at fair value (cost of $17,800,589 and $13,894,348, respectively)	18,451,913	14,014,919
Held-to-maturity securities, at amortized cost and net of allowance for credit losses of $222 and $0 (fair value of $13,541,461 and $14,115,272, respectively) (1)	12,858,823	13,842,946
Non-marketable and other equity securities	1,270,578	1,213,829
Total investment securities	32,581,314	29,071,694
Loans, amortized cost	36,727,222	33,164,636
Allowance for credit losses: loans	(589,828)	(304,924)
Net loans	36,137,394	32,859,712
Premises and equipment, net of accumulated depreciation and amortization	169,313	161,876
Goodwill	137,823	137,823
Other intangible assets, net	46,726	49,417
Lease right-of-use assets	215,319	197,365
Accrued interest receivable and other assets	2,240,990	1,745,233
Total assets	$ 85,730,985	$ 71,004,903
Liabilities and total equity:		
Liabilities:		
Noninterest-bearing demand deposits	$ 49,160,880	$ 40,841,570
Interest-bearing deposits	25,344,884	20,916,237
Total deposits	74,505,764	61,757,807
Short-term borrowings	50,924	17,430
Lease liabilities	239,357	218,847
Other liabilities	2,623,407	2,041,752
Long-term debt	843,220	347,987
Total liabilities	78,262,672	64,383,823
Commitments and contingencies (Note 15 and Note 18)		
SVBFG stockholders' equity:		
Preferred stock, $0.001 par value, 20,000,000 shares authorized; 350,000 shares issued and outstanding	340,138	340,138
Common stock, $0.001 par value, 150,000,000 shares authorized; 51,740,714 shares and 51,655,607 shares issued and outstanding, respectively	52	52
Additional paid-in capital	1,522,728	1,470,071
Retained earnings	4,841,720	4,575,601
Accumulated other comprehensive income	614,735	84,445
Total SVBFG stockholders' equity	7,319,373	6,470,307
Noncontrolling interests	148,940	150,773
Total equity	7,468,313	6,621,080
Total liabilities and total equity	$ 85,730,985	$ 71,004,903

(1) Prior to our adoption of Accounting Standard Update (ASU 2016-13, Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments) on January 1, 2020, the allowance for credit losses (ACL) related to held-to-maturity (HTM) securities was not applicable and is therefore presented as $0 at December 31, 2019. See "Adoption of New Accounting Standards" in Note 1 — "Basis of Presentation" of the "Notes to Interim Consolidated Financial Statements (unaudited)" under Part I, Item 1 of this report for additional details.

See accompanying notes to interim consolidated financial statements (unaudited).

SVB FINANCIAL GROUP AND SUBSIDIARIES
INTERIM CONSOLIDATED STATEMENTS OF INCOME (UNAUDITED)

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands, except per share amounts)	**2020**	**2019**	**2020**	**2019**
Interest income:				
Loans	$ 365,110	$ 414,077	$ 747,679	$ 808,221
Investment securities:				
Taxable	141,547	134,395	295,932	261,112
Non-taxable	14,464	10,931	27,288	21,868
Federal funds sold, securities purchased under agreements to resell and other short-term investment securities	2,402	26,364	20,026	45,580
Total interest income	523,523	585,767	1,090,925	1,136,781
Interest expense:				
Deposits	5,694	47,150	43,092	75,057
Borrowings	4,902	9,214	10,769	19,435
Total interest expense	10,596	56,364	53,861	94,492
Net interest income	512,927	529,403	1,037,064	1,042,289
Provision for credit losses	66,481	23,946	309,961	52,497
Net interest income after provision for credit losses	446,446	505,457	727,103	989,792
Noninterest income:				
Gains on investment securities, net	34,868	47,698	80,923	76,726
Gains on equity warrant assets, net	26,506	48,347	39,901	69,652
Client investment fees	31,885	45,744	75,278	90,226
Foreign exchange fees	36,256	38,506	83,761	76,554
Credit card fees	21,288	28,790	49,592	56,273
Deposit service charges	20,511	22,075	45,100	43,014
Lending related fees	11,164	11,213	24,289	25,150
Letters of credit and standby letters of credit fees	11,421	11,009	22,963	20,363
Investment banking revenue	141,503	48,694	188,370	98,489
Commissions	16,918	14,429	32,940	28,537
Other	16,528	17,245	27,665	29,142
Total noninterest income	368,848	333,750	670,782	614,126
Noninterest expense:				
Compensation and benefits	319,797	243,172	575,383	481,233
Professional services	63,828	40,830	102,533	77,816
Premises and equipment	27,708	23,911	54,648	45,611
Net occupancy	18,845	16,687	37,191	32,735
Business development and travel	2,992	17,022	17,063	32,376
FDIC and state assessments	6,819	4,483	12,053	8,462
Other	39,647	37,417	80,350	70,953
Total noninterest expense	479,636	383,522	879,221	749,186
Income before income tax expense	335,658	455,685	518,664	854,732
Income tax expense	87,869	119,114	137,226	226,549
Net income before noncontrolling interests	247,789	336,571	381,438	628,183
Net income attributable to noncontrolling interests	(14,260)	(18,584)	(12,287)	(21,464)
Preferred stock dividends	(4,594)	—	(7,963)	—
Net income available to common stockholders	$ 228,935	$ 317,987	$ 361,188	$ 606,719
Earnings per common share—basic	$ 4.44	$ 6.12	$ 7.00	$ 11.61
Earnings per common share—diluted	4.42	6.08	6.97	11.51

See accompanying notes to interim consolidated financial statements (unaudited).

SVB FINANCIAL GROUP AND SUBSIDIARIES
INTERIM CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (UNAUDITED)

(Dollars in thousands)	Three months ended June 30, 2020	Three months ended June 30, 2019	Six months ended June 30, 2020	Six months ended June 30, 2019
Net income before noncontrolling interests	$ 247,789	$ 336,571	$ 381,438	$ 628,183
Other comprehensive income, net of tax:				
Change in foreign currency cumulative translation gains and losses:				
Foreign currency translation gains (losses)	164	(2,900)	(8,956)	(94)
Related tax (expense) benefit	(204)	808	2,352	26
Change in unrealized gains and losses on available-for-sale securities:				
Unrealized holding gains	46,738	119,182	590,619	166,018
Related tax expense	(12,954)	(33,194)	(163,700)	(46,239)
Reclassification adjustment for losses (gains) included in net income	—	275	(61,165)	3,905
Related tax (benefit) expense	—	(77)	16,953	(1,087)
Amortization of unrealized holding gains on securities transferred from available-for-sale to held-to-maturity	(138)	(719)	(690)	(1,393)
Related tax benefit	38	200	191	388
Change in unrealized gains and losses on cash flow hedges:				
Unrealized gains	—	17,554	231,920	18,656
Related tax expense	—	(4,890)	(64,281)	(5,197)
Reclassification adjustment for (gains) losses included in net income	(15,831)	508	(17,920)	511
Related tax expense (benefit)	4,388	(141)	4,967	(142)
Other comprehensive income, net of tax	22,201	96,606	530,290	135,352
Comprehensive income	269,990	433,177	911,728	763,535
Comprehensive income attributable to noncontrolling interests	(14,260)	(18,584)	(12,287)	(21,464)
Comprehensive income attributable to SVBFG	$ 255,730	$ 414,593	$ 899,441	$ 742,071

See accompanying notes to interim consolidated financial statements (unaudited).

SVB FINANCIAL GROUP AND SUBSIDIARIES
INTERIM CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (UNAUDITED)

(Dollars in thousands)	Preferred Stock	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total SVBFG Stockholders' Equity	Noncontrolling Interests	Total Equity
Balance at December 31, 2018	**$ —**	**52,586,498**	**$ 53**	**$ 1,378,438**	**$ 3,791,838**	**$ (54,120)**	**$ 5,116,209**	**$ 148,634**	**$ 5,264,843**
Cumulative adjustment for the adoption of premium amortization on purchased callable debt securities, net of tax (ASU 2017-08) (1)	—	—	—	—	(583)	—	(583)	—	(583)
Acquisition of SVB Leerink	—	—	—	—	—	—	—	5,256	5,256
Common stock issued under employee benefit plans, net of restricted stock cancellations	—	467,427	—	7,853	—	—	7,853	—	7,853
Common stock issued under ESOP	—	14,442	—	3,506	—	—	3,506	—	3,506
Net income	—	—	—	—	606,719	—	606,719	21,464	628,183
Capital calls and distributions, net	—	—	—	—	—	—	—	(23,222)	(23,222)
Net change in unrealized gains and losses on AFS securities, net of tax	—	—	—	—	—	122,597	122,597	—	122,597
Amortization of unrealized holding gains on securities transferred from AFS to HTM, net of tax	—	—	—	—	—	(1,005)	(1,005)	—	(1,005)
Foreign currency translation adjustments, net of tax	—	—	—	—	—	(68)	(68)	—	(68)
Net change in unrealized gains and losses on cash flow hedges, net of tax	—	—	—	—	—	13,828	13,828	—	13,828
Share-based compensation, net	—	—	—	31,768	—	—	31,768	—	31,768
Common stock repurchases	—	(1,506,648)	(1)	—	(346,780)	—	(346,781)	—	(346,781)
Balance at June 30, 2019	**$ —**	**51,561,719**	**$ 52**	**$1,421,565**	**$4,051,194**	**$ 81,232**	**$ 5,554,043**	**$ 152,132**	**$5,706,175**
Balance at December 31, 2019	**$ 340,138**	**51,655,607**	**$ 52**	**$1,470,071**	**$4,575,601**	**$ 84,445**	**$ 6,470,307**	**$ 150,773**	**$6,621,080**
Cumulative adjustment for the day one adoption of ASC 326, net of tax (1)	—	—	—	—	(35,049)	—	(35,049)	—	(35,049)
Common stock issued under employee benefit plans, net of restricted stock cancellations	—	317,236	—	10,894	—	—	10,894	—	10,894
Common stock issued under ESOP	—	12,094	—	2,447	—	—	2,447	—	2,447
Net income	—	—	—	—	369,151	—	369,151	12,287	381,438
Capital calls and distributions, net	—	—	—	—	—	—	—	(14,120)	(14,120)
Net change in unrealized gains and losses on AFS securities, net of tax	—	—	—	—	—	382,707	382,707	—	382,707
Amortization of unrealized holding gains on securities transferred from AFS to HTM, net of tax	—	—	—	—	—	(499)	(499)	—	(499)
Foreign currency translation adjustments, net of tax	—	—	—	—	—	(6,604)	(6,604)	—	(6,604)
Net change in unrealized gains and losses on cash flow hedges, net of tax	—	—	—	—	—	154,686	154,686	—	154,686
Share-based compensation, net	—	—	—	39,325	—	—	39,325	—	39,325
Common stock repurchases	—	(244,223)	—	—	(60,020)	—	(60,020)	—	(60,020)
Dividends on preferred stock	—	—	—	—	(7,963)	—	(7,963)	—	(7,963)
Other, net	—	—	—	(9)	—	—	(9)	—	(9)
Balance at June 30, 2020	**$ 340,138**	**51,740,714**	**$ 52**	**$ 1,522,728**	**$ 4,841,720**	**$ 614,735**	**$ 7,319,373**	**$ 148,940**	**$ 7,468,313**

(1) See "Adoption of New Accounting Standards" in Note 1 — "Basis of Presentation" of the "Notes to Interim Consolidated Financial Statements (unaudited)" under Part I, Item 1 of this report for additional details.

See accompanying notes to interim consolidated financial statements (unaudited).

SVB FINANCIAL GROUP AND SUBSIDIARIES
INTERIM CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

(Dollars in thousands)	Six months ended June 30, 2020	2019
Cash flows from operating activities:		
Net income before noncontrolling interests	$ 381,438	$ 628,183
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for credit losses	309,961	52,497
Changes in fair values of equity warrant assets, net of proceeds from exercises	20,632	(825)
Changes in fair values of derivatives, net	(58,776)	(9,958)
Gains on investment securities, net	(80,923)	(76,726)
Distributions of earnings from non-marketable and other equity securities	49,125	40,584
Depreciation and amortization	49,650	40,824
Amortization of premiums and discounts on investment securities, net	29,633	4,993
Amortization of share-based compensation	39,325	31,768
Amortization of deferred loan fees	(78,042)	(76,712)
Deferred income tax benefit	(72,755)	(3,854)
Excess tax benefit from exercise of stock options and vesting of restricted shares	(2,181)	(7,369)
Losses from the write-off of premises and equipment	—	185
Changes in other assets and liabilities:		
Accrued interest receivable and payable, net	16,606	(3,850)
Accounts receivable and payable, net	2,770	22,308
Income tax receivable and payable, net	131,253	(87,097)
Accrued compensation	(115,203)	(175,469)
Foreign exchange spot contracts, net	(5,900)	108,307
Proceeds from termination of interest rate swaps	227,500	—
Other, net	(98,635)	(37,218)
Net cash provided by operating activities	745,478	450,571
Cash flows from investing activities:		
Purchases of available-for-sale securities	(8,071,014)	(2,553,326)
Proceeds from sales of available-for-sale securities	2,654,212	2,189,087
Proceeds from maturities and paydowns of available-for-sale securities	1,550,220	382,054
Purchases of held-to-maturity securities	(568,002)	(277,889)
Proceeds from maturities and paydowns of held-to-maturity securities	1,543,942	888,943
Purchases of non-marketable and other equity securities	(118,737)	(39,287)
Proceeds from sales and distributions of capital of non-marketable and other equity securities	57,745	59,187
Net increase in loans	(3,530,020)	(844,830)
Purchases of premises and equipment	(51,214)	(18,632)
Acquisition of SVB Leerink, net of cash acquired	—	(102,328)
Net cash used for investing activities	(6,532,868)	(317,021)
Cash flows from financing activities:		
Net increase in deposits	12,747,957	6,281,640
Net increase (decrease) in short-term borrowings	33,494	(607,160)
Proceeds from issuance of 3.125% Senior Notes	495,024	—
(Distributions to noncontrolling interests), net of contributions from noncontrolling interests	(14,120)	(23,222)
Payment of preferred stock dividend	(7,963)	—
Common stock repurchases	(60,020)	(346,781)
Proceeds from issuance of common stock, ESPP and ESOP, net of restricted stock awards	13,341	11,359
Net cash provided by financing activities	13,207,713	5,315,836
Net increase in cash and cash equivalents	7,420,323	5,449,386
Cash and cash equivalents at beginning of period	6,781,783	3,571,539
Cash and cash equivalents at end of period	**$ 14,202,106**	**$ 9,020,925**
Supplemental disclosures:		
Cash paid during the period for:		
Interest	$ 67,493	$ 94,851
Income taxes	57,539	310,604
Noncash items during the period:		
Changes in unrealized gains and losses on available-for-sale securities, net of tax	$ 382,707	$ 122,597
Distributions of stock from investments	11,093	6,747

See accompanying notes to interim consolidated financial statements (unaudited).

SVB FINANCIAL GROUP AND SUBSIDIARIES
NOTES TO INTERIM CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

1. Basis of Presentation

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 unaudited interim consolidated financial statements, 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 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, SVB Financial Group (not including subsidiaries).

The accompanying unaudited interim consolidated financial statements reflect all adjustments of a normal and recurring nature that are, in the opinion of management, necessary to fairly present our financial position, results of operations and cash flows in accordance with GAAP. Such unaudited interim consolidated financial statements have been prepared in accordance with the instructions to Form 10-Q pursuant to the rules and regulations of the SEC. Certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. The results of operations for the three and six months ended June 30, 2020 are not necessarily indicative of results to be expected for any future periods. These unaudited interim consolidated financial statements should be read in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2019 (“2019 Form 10-K”).

Use of Estimates and Assumptions

The preparation of unaudited interim 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. Significant items that are subject to such estimates include measurements of fair value, the valuation of non-marketable and other equity securities, the valuation of equity warrant assets and the adequacy of the allowance for credit losses for loans and for unfunded credit commitments.

Principles of Consolidation and Presentation

Our unaudited interim consolidated financial statements include the accounts of SVB Financial Group and consolidated entities. We consolidate voting entities in which we have control through voting interests or entities through which we have a controlling financial interest in a variable interest entity (“VIE”). We determine whether we have a controlling financial interest in a VIE by determining if we have: (a) the power to direct the activities of the VIE that most significantly impact the entity’s economic performance, (b) the obligation to absorb the expected losses or (c) the right to receive the expected returns of the entity. Generally, we have significant variable interests if our commitments to a limited partnership investment represent a significant amount of the total commitments to the entity. We also evaluate the impact of related parties on our determination of variable interests in our consolidation conclusions. We consolidate VIEs in which we are the primary beneficiary based on a controlling financial interest. If we are not the primary beneficiary of a VIE, we record our pro-rata interests based on our ownership percentage.

VIEs are entities where investors lack sufficient equity at risk for the entity to finance its activities without additional subordinated financial support or equity investors, as a group, lack one of the following characteristics: (a) the power to direct the activities that most significantly impact the entity’s economic performance, (b) the obligation to absorb the expected losses of the entity, or (c) the right to receive the expected returns of the entity. We assess VIEs to determine if we are the primary beneficiary of a VIE. A primary beneficiary is defined as a variable interest holder that has a controlling financial interest. A controlling financial interest requires both: (a) the power to direct the activities that most significantly impact the VIE’s economic performance and (b) obligation to absorb losses or receive benefits of a VIE that could potentially be significant to a VIE. Under this analysis, we also evaluate kick-out rights and other participating rights, which could provide us a controlling financial interest. The primary beneficiary of a VIE is required to consolidate the VIE.

We also evaluate fees paid to managers of our limited partnership investments. We exclude those fee arrangements that are not deemed to be variable interests from the analysis of our interests in our investments in VIEs and the determination of a primary beneficiary, if any. Fee arrangements based on terms that are customary and commensurate with the services provided are deemed not to be variable interests and are, therefore, excluded.

All significant intercompany accounts and transactions with consolidated entities have been eliminated. We have not provided financial or other support during the periods presented to any VIE that we were not previously contractually required to provide.

Reclassifications

Certain prior period amounts primarily related to the adoption of the Accounting Standard Update (ASU 2016-13, Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments) (″ASU 2016-13″ or ″CECL″) as mentioned below have been reclassified to conform to current period presentations.

Summary of Significant Accounting Policies

With the exception of the updated accounting policies listed below, the accompanying unaudited interim consolidated financial statements have been prepared on a consistent basis with the accounting policies described in Consolidated Financial Statements and Supplementary Data — Note 2 — “Summary of Significant Accounting Policies” under Part II, Item 8 of our 2019 Form 10-K.

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: Loans

The allowance for credit losses for loans considers credit risk and is adjusted by a provision for expected credit losses ("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.

Portfolio Segments

The estimation of ECL on loans process involves procedures to appropriately consider the unique characteristics of our seven loan portfolio segments. Our seven portfolio segments are determined by using the following risk dimensions: (i) underwriting methodology, (ii) industry niche and (iii) life stage. The seven portfolio segments are further disaggregated into 11 classes of financing receivable, or risk-based segments, 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. The following provides additional information regarding our seven portfolio segments:

(i) Investor Dependent - Accelerator (Early-Stage) and Growth (Mid-Stage and Later-Stage)

Investor Dependent loans are made primarily to technology and life science/healthcare companies in both our Accelerator (Early-Stage) and Growth practices (Mid-Stage and Later-Stage). Investor Dependent loans typically have modest or negative cash flows and no 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 others, or in some cases, a successful sale to a third party or an IPO. Venture capital firms may provide financing selectively, at reduced amounts, or on less favorable terms, which may have an adverse effect on our borrowers' ability to repay their loans to us. When repayment is dependent upon the next round of venture investment and there is an indication that further investment is unlikely or will not occur, it is often likely that the company would need to be sold to repay the debt in full. If reasonable efforts have not yielded a likely buyer willing to repay all debt at the close of the sale or on commercially viable terms, the account will most likely be deemed to be impaired and charged-off.

We further disaggregate Investor Dependent loans into three subcategories. Early-Stage consists of pre-revenue, development-stage companies and companies that are in the early phases of commercialization, with revenues of up to $5 million. Mid-Stage companies consist of growth-stage enterprises with revenues of between $5 million and $15 million or, in the case of biotechnology, pre-revenue clinical-stage companies. Later-Stage consists of companies with revenues of $15 million or more. This disaggregation is based in part on the materially different historical loss rate we

have experienced with each cohort, with historical loss rates being the highest in the Early-Stage segment, and declining in the Mid-Stage and Later-Stage segments, as a function of the relatively higher enterprise value and asset coverage that is created as a company progresses through the various stages of development.

(ii) Cash Flow Dependent

Cash Flow Dependent loans are made primarily to technology and life science/healthcare companies, which include Sponsor Led Buyout lending, and 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. Sponsor Led Buyout loans are typically used to assist a select group of experienced private equity sponsors with the acquisition of businesses and are larger in size, and repayment is generally dependent upon the cash flows of the acquired company. The acquired companies are typically established, later-stage businesses of scale and characterized by reasonable levels of leverage and loan structures that include meaningful financial covenants. The sponsor's equity contribution is often 50 percent or more of the acquisition price.

(iii) Balance Sheet Dependent

Balance Sheet Dependent loans are made primarily to technology and life science/healthcare companies, which include asset-based loans, and are structured to require constant current asset coverage (i.e., cash, cash equivalents, accounts receivable and, to a much lesser extent, inventory) in an amount that exceeds the outstanding debt. These loans are generally made to companies in our Growth and Corporate Finance practices. The repayment of these arrangements is dependent on the financial condition, and payment ability, of third parties with whom our clients do business. As a result of the adoption of CECL and in connection with the revised approach to portfolio disaggregation discussed above, certain loans that were previously considered to be Balance Sheet Dependent have been reclassified as Investor Dependent - Later-Stage.

(iv) Private Equity/Venture Capital

The vast majority of our Private Equity/Venture Capital 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 often secured by an assignment of the general partner's right to call capital from the fund's limited partner investors.

(v) Private Bank

Our Private Bank clients are primarily private equity/venture capital professionals and senior executives in the innovation companies they support. We offer a customized suite of private banking services, including mortgages, home equity lines of credit, restricted stock purchase loans, real estate secured home equity capital call lines of credit and other secured and unsecured lending products, as well as cash and wealth management services. In addition, we provide real estate secured loans to eligible employees through our Employee Home Ownership Program.

(vi) Premium Wine and Other

Our Premium Wine clients primarily consist of 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. Our other loan portfolio segment primarily includes our community development loans made as part of our responsibilities under the Community Reinvestment Act.

(vii) SBA lending

We participated in the U.S. Small Business Administration’s ("SBA") Paycheck Protection Program to support small businesses across the United States. Under this program, the SBA provides a guarantee to banks making unsecured term loans of up to $10 million for qualified small businesses, as defined by the SBA. We are no longer taking applications for this program and are preparing for the second phase, forgiveness, whereby clients apply for loans to be forgiven (paid off) by the SBA. Loans funded under this program were primarily made to clients in the technology, life science/healthcare, premium wine and energy resource industries. While the recipients were located across the United States, more than half were made to clients that applied from the western region.

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 allowance for credit losses has two main components: (1) 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 (2) ECL assessed for individual loans that do not share similar risk characteristics with other loans. We do not estimate ECL on accrued interest receivable ("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 $107.2 million at June 30, 2020 and $119.1 million at December 31, 2019 and is reported in "Accrued interest receivable and other assets" in our unaudited interim consolidated balance sheets.

While the evaluation process of our allowance for credit losses on loans uses historical and other objective information, the classification of loans and the estimate of the allowance for credit losses for loans rely on the judgment and experience of our management. A committee comprised of senior management evaluates the adequacy of the allowance for credit losses 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: (1) probability of default ("PD"), (2) loss given default ("LGD") and (3) 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 judgement. Renewals and extensions within our control are not considered in the estimated contractual term of a loan. However, we include potential extensions if management has a reasonable expectation that we will execute a TDR with the borrower. 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 three years for all portfolio segments. To the extent the remaining contractual lives of loans in the portfolio extend beyond this three-year period, we revert to historical averages gradually over the remaining contractual lives, adjusted for prepayments. The macroeconomic scenarios are reviewed on a quarterly basis.

We also apply a qualitative factor adjustment to the results obtained through our quantitative ECL models to consider relevant qualitative factors that relate to the environment in which the entity operates and are specific to the borrower. These adjustments are based upon our assessment of the risks that may lead to a future loan loss experience different from our historical loan loss experience. These risks 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 the institution's 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 the institution's 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, expected credit loss 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 and accepted at least annually.

Allowance for Credit Losses: Unfunded Credit Commitments

We maintain a separate allowance for credit losses 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 allowance for credit losses on unfunded credit commitments. Loan commitments that are determined to be unconditionally cancellable by the Company do not require an allowance for credit losses.

Investment Securities

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

Our available-for-sale 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/liability management objectives. Unrealized gains and losses on available-for-sale securities, net of applicable taxes, are reported in accumulated other comprehensive income, which is a separate component of SVBFG's stockholders' equity, until realized.

We analyze available-for-sale securities for impairment related to credit losses each quarter. Market valuations represent the current fair value of a security at a specified point in time and incorporates the risk of timing of interest due and the return of principal over the contractual life of each security. Gains and losses on securities are realized when there is a sale of the security prior to maturity. 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 fair value, calculated as the present value of expected future cash flow discounted at the security's effective interest rate, is less than the amortized cost basis. We separate the amount of the impairment related to credit losses, if any, and the amount due to all other factors. The credit loss component is recognized in earnings and recorded as an allowance for credit losses for AFS securities.

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 maturity are classified as held-to-maturity securities and are recorded at amortized cost, net of any allowance for credit losses.

We measure ECL on held-to-maturity securities on a collective basis by major security type and standard credit rating. Our held-to-maturity securities portfolio, with the exception of our municipal bond 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. Our municipal bond portfolio primarily consists of highly rated bonds and currently carry ratings no lower than Aa3. The estimate of ECL on our municipal bond portfolio 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 to our municipal bond portfolio, 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 accrued interest receivable ("AIR") from held-to-maturity securities as AIR is reversed or written off when the full collection of the AIR related to a security becomes doubtful. AIR from held-to-maturity securities totaled $45.4 million at June 30, 2020 and $45.2 million at December 31, 2019 and is reported in "Accrued interest receivable and other assets" in our unaudited interim consolidated balance sheets.

Expected credit loss on municipal bonds 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.

Adoption of New Accounting Standards

Financial Instruments - Credit Losses

In June 2016, the FASB issued a new Accounting Standard Update (ASU 2016-13, Financial Instruments- Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments), which amends the incurred loss impairment methodology in current GAAP with a methodology that reflects a current expected credit loss measurement to estimate the allowance for credit losses over the contractual life of the financial assets (including loans, unfunded credit commitments and HTM securities) and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. While the CECL model does not apply to available-for-sale debt securities, ASU 2016-13 does require entities to record an allowance for credit losses when recognizing credit losses for available-for-sale securities, rather than reduce the amortized cost of the securities by direct write-offs, which allows for reversal of credit impairments in future periods based on improvements in credit. We adopted the guidance on January 1, 2020, using a modified retrospective approach. We recognized the cumulative effect of initially applying CECL as an adjustment to the opening balance of retained earnings, net of tax. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods.

We completed a comprehensive implementation process that included loss forecasting model development, evaluation of technical accounting topics, updates to our allowance for credit loss accounting policies, reporting processes and related internal controls, overall operational readiness for our adoption of CECL as well as parallel runs for CECL alongside our previous allowance process. We provided quarterly updates to senior management and to the Audit and Credit Committees of the Board of Directors throughout the implementation process. For additional details regarding our allowance for credit losses methodology, see Note 7 — “Loans and Allowance for Credit Losses: Loans and Unfunded Credit Commitments” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 of this report.

Based on our loan, unfunded credit commitment, and HTM security portfolios composition at December 31, 2019, and the then current economic environment, the cumulative effect of the changes to our consolidated balance sheets at January 1, 2020, for the adoption of CECL were as follows:

(Dollars in thousands)	Balance at December 31, 2019	Adjustments Due to Adoption of ASC 326	Balance at January 1, 2020
Assets:			
Allowance for credit losses: loans	$ 304,924	$ 25,464	$ 330,388
Allowance for credit losses: held-to-maturity securities	—	174	174
Deferred tax assets	28,433	13,415	41,848
Other liabilities:			
Allowance for credit losses: unfunded credit commitments	67,656	22,826	90,482
Stockholders' equity:			
Retained earnings, net of tax	4,575,601	(35,049)	4,540,552

In light of the economic disruptions and operational challenges related to the Coronavirus Disease 2019 pandemic (“COVID-19”), in March 2020 the federal banking agencies provided transitional 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 adopt CECL during the 2020 calendar year, such as SVB Financial and the Bank, 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. 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 have elected to use the five-year transition option under the 2020 CECL Transition Rule. Refer to the "Capital Resources" section under Part I, Item 2 of this report for additional details.

Additionally, under the prior guidance, our loan portfolio and credit quality disclosures were disaggregated based on client market segments. Upon adoption of CECL, our technology (software/internet and hardware) and life science/healthcare market segments are disclosed by the portfolio segment that aligns with their respective underwriting methodology and the level at which credit risk is now monitored by management. The primary underwriting method for our technology and life science/healthcare portfolios are classified as investor dependent (early-stage and growth), cash flow dependent or balance sheet

dependent, as noted above, and prior period amounts were reclassified for comparability. There are no other material changes to our current market segments.

Other Adopted Accounting Pronouncements

In August 2018, the FASB issued a new Accounting Standard Update (ASU No. 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement). The ASU primarily modifies certain disclosures with respect to Level 3 fair value measurements. We adopted the guidance on January 1, 2020. The adoption did not have an impact on our consolidated financial position or results of operations and did not have a material impact on the disclosures in our notes to our unaudited interim consolidated financial statements.

2. Stockholders' Equity and EPS

Accumulated Other Comprehensive Income

The following table summarizes the items reclassified out of accumulated other comprehensive income into the Consolidated Statements of Income (unaudited) for the three and six months ended June 30, 2020 and 2019:

		Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	Income Statement Location	2020	2019	2020	2019
Reclassification adjustment for losses (gains) on available-for-sale securities included in net income	Gains on investment securities, net	$ —	$ 275	$ (61,165)	$ 3,905
Related tax (benefit) expense	Income tax expense	—	(77)	16,953	(1,087)
Reclassification adjustment for (gains) losses on cash flow hedges included in net income	Net interest income	(15,831)	508	(17,920)	511
Related tax expense (benefit)	Income tax expense	4,388	(141)	4,967	(142)
Total reclassification adjustment for (gains) losses included in net income, net of tax		$ (11,443)	$ 565	$ (57,165)	$ 3,187

The table below summarizes the activity relating to net gains and losses on our cash flow hedges included in accumulated other comprehensive income for the three and six months ended June 30, 2020 and 2019. Refer to Note 11 — “Derivative Financial Instruments” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 of this report for additional information regarding the termination of our cash flow hedges during the three months ended March 31, 2020. Over the next 12 months, we expect that approximately $63.5 million in accumulated other comprehensive income ("AOCI") at June 30, 2020, related to unrealized gains will be reclassified out of AOCI and recognized in net income.

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Balance, beginning of period, net of tax	$ 163,999	$ 797	$ (2,130)	$ —
Net increase in fair value, net of tax	—	12,664	167,639	13,459
Net realized (gain) loss reclassified to net income, net of tax	(11,443)	367	(12,953)	369
Balance, end of period, net of tax	$ 152,556	$ 13,828	$ 152,556	$ 13,828

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 the three and six months ended June 30, 2020 and 2019:

	Three months ended June 30,		Six months ended June 30,	
(Dollars and shares in thousands, except per share amounts)	2020	2019	2020	2019
Numerator:				
Net income available to common stockholders	$ 228,935	$ 317,987	$ 361,188	$ 606,719
Denominator:				
Weighted average common shares outstanding—basic	51,581	51,955	51,573	52,269
Weighted average effect of dilutive securities:				
Stock options and ESPP	114	235	140	254
Restricted stock units and awards	100	146	135	192
Weighted average common shares outstanding—diluted	51,795	52,336	51,848	52,715
Earnings per common share:				
Basic	$ 4.44	$ 6.12	$ 7.00	$ 11.61
Diluted	4.42	6.08	6.97	11.51

The following table summarizes the weighted-average common shares excluded from the diluted EPS calculation due to the antidilutive effect for the three and six months ended June 30, 2020 and 2019:

	Three months ended June 30,		Six months ended June 30,	
(Shares in thousands)	2020	2019	2020	2019
Stock options	288	166	247	128
Restricted stock units	312	333	310	228
Total	600	499	557	356

Stock Repurchase Program

On October 24, 2019, our Board of Directors authorized a new stock repurchase program that enables us to repurchase up to $350 million of our outstanding common stock. This program expires on October 29, 2020. We have temporarily paused our stock repurchase program and will reassess this decision once the economic environment becomes more stable. For the three months ended June 30, 2020, we did not repurchase any shares of our outstanding common stock under the new stock repurchase program. For the six months ended June 30, 2020, we had repurchased 244,223 shares of our outstanding common stock for $60.0 million under the stock repurchase program.

Preferred Stock

On December 9, 2019, the Company issued depositary shares representing an ownership interest in 350,000 shares of Series A Preferred Stock with $0.001 par value and liquidation preference of $1,000 per share, or $25 per depositary share. All preferred shares were issued in the form of depositary shares, with each depositary share representing a 1/40th ownership interest in a share of the preferred stock. The Series A Preferred Stock has no stated maturity and is not subject to any sinking fund or other obligation of the Company. Dividends are approved by the Board of Directors and, if declared, are payable quarterly, in arrears, at a rate per annum equal to 5.25 percent. The Series A Preferred Stock is redeemable at the Company's option, in whole or in part, on or after February 15, 2025. Prior to February 15, 2025, the Series A Preferred Stock is redeemable at the Company's option, in whole and not in part, following any change in laws or regulations that would not allow the Company to treat the full liquidation value of the Series A Preferred Stock as Tier 1 capital for purposes of the capital adequacy guidelines of the Board of Governors of the Federal Reserve System ("the Federal Reserve"). The redemption amount is computed at the per share liquidation preference plus any declared but unpaid dividends. Redemptions are subject to certain regulatory provisions, including approval of the Federal Reserve.

As of June 30, 2020, there were 350,000 shares issued and outstanding of Series A Preferred Shares, which had a carrying value of $340.1 million and liquidation preference of $350.0 million.

The following table summarizes our preferred stock at June 30, 2020:

Series	Description	Amount outstanding (in millions)	Carrying value (in millions)	Shares issued and outstanding	Par Value	Ownership interest per depository share	Liquidation preference per depository share	2020 dividends paid per depository share
Series A	5.250% Fixed-Rate Non-Cumulative Perpetual Preferred Stock	$ 350	$ 340.1	350,000	$ 0.001	1/40th	$ 25	$ 0.57

Consolidated Statement of Changes in Equity

The following table summarizes the changes in our consolidated equity for the three months ended June 30, 2020 and 2019:

(Dollars in thousands)	Preferred Stock	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total SVBFG Stockholders' Equity	Noncontrolling Interests	Total Equity
Balance at March 31, 2019	**$ —**	**52,322,105**	**$ 52**	**$1,394,130**	**$3,963,965**	**$ (15,374)**	**$ 5,342,773**	**$ 141,050**	**$5,483,823**
Common stock issued under employee benefit plans, net of restricted stock cancellations	—	257,684	—	10,789	—	—	10,789	—	10,789
Net income	—	—	—	—	317,987	—	317,987	18,584	336,571
Capital calls and distributions, net	—	—	—	—	—	—	—	(7,502)	(7,502)
Net change in unrealized gains and losses on AFS securities, net of tax	—	—	—	—	—	86,186	86,186	—	86,186
Amortization of unrealized holding gains on securities transferred from AFS to HTM, net of tax	—	—	—	—	—	(519)	(519)	—	(519)
Foreign currency translation adjustments, net of tax	—	—	—	—	—	(2,092)	(2,092)	—	(2,092)
Net change in unrealized gains and losses on cash flow hedges, net of tax	—	—				13,031	13,031		13,031
Share-based compensation, net	—	—	—	16,646	—	—	16,646	—	16,646
Common stock repurchases		(1,018,070)			(230,758)		(230,758)		(230,758)
Balance at June 30, 2019	**$ —**	**51,561,719**	**$ 52**	**$1,421,565**	**$4,051,194**	**$ 81,232**	**$ 5,554,043**	**$ 152,132**	**$5,706,175**
Balance at March 31, 2020	**$ 340,138**	**51,490,342**	**$ 52**	**$1,489,240**	**$4,612,785**	**$ 592,534**	**$ 7,034,749**	**$ 148,472**	**$7,183,221**
Common stock issued under employee benefit plans, net of restricted stock cancellations	—	250,372	—	13,925	—	—	13,925	—	13,925
Net income	—	—	—	—	233,529	—	233,529	14,260	247,789
Capital calls and distributions, net	—	—	—	—	—	—	—	(13,792)	(13,792)
Net change in unrealized gains and losses on AFS securities, net of tax	—	—	—	—	—	33,784	33,784	—	33,784
Amortization of unrealized holding gains on securities transferred from AFS to HTM, net of tax	—	—	—	—	—	(100)	(100)	—	(100)
Foreign currency translation adjustments, net of tax	—	—	—	—	—	(40)	(40)	—	(40)
Net change in unrealized gains and losses on cash flow hedges, net of tax	—	—	—	—	—	(11,443)	(11,443)	—	(11,443)
Share-based compensation, net	—	—	—	20,154	—	—	20,154	—	20,154
Preferred stock dividends	—	—	—	—	(4,594)	—	(4,594)	—	(4,594)
Other, net	—	—	—	(591)	—	—	(591)	—	(591)
Balance at June 30, 2020	**$ 340,138**	**51,740,714**	**$ 52**	**$1,522,728**	**$4,841,720**	**$ 614,735**	**$ 7,319,373**	**$ 148,940**	**$7,468,313**

3. Share-Based Compensation

For the three and six months ended June 30, 2020 and 2019, we recorded share-based compensation and related tax benefits as follows:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Share-based compensation expense	$ 20,154	$ 16,646	$ 39,325	$ 31,768
Income tax benefit related to share-based compensation expense	(4,727)	(3,817)	(9,167)	(7,144)

Unrecognized Compensation Expense

As of June 30, 2020, unrecognized share-based compensation expense was as follows:

(Dollars in thousands)	Unrecognized Expense	Weighted Average Expected Recognition Period - in Years
Stock options	$ 17,048	2.78
Restricted stock units and awards	134,908	2.85
Total unrecognized share-based compensation expense	$ 151,956	

Share-Based Payment Award Activity

The table below provides stock option information related to the 2006 Equity Incentive Plan for the six months ended June 30, 2020:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life - in Years	Aggregate Intrinsic Value of In-The-Money Options
Outstanding at December 31, 2019	625,407	$ 169.33		
Granted	119,472	185.52		
Exercised	(82,896)	89.71		
Forfeited	(11,585)	226.95		
Expired	(1,030)	71.11		
Outstanding at June 30, 2020	649,368	181.60	4.11	$ 32,958,101
Vested and expected to vest at June 30, 2020	622,501	180.01	4.02	32,492,850
Exercisable at June 30, 2020	367,008	148.46	2.67	28,597,666

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 $215.53 as of June 30, 2020. The total intrinsic value of options exercised during the three and six months ended June 30, 2020 was $3.3 million and $11.6 million, compared to $6.9 million and $14.4 million for the comparable 2019 period.

The table below provides information for restricted stock units and awards under the 2006 Equity Incentive Plan for the six months ended June 30, 2020:

	Shares	Weighted Average Grant Date Fair Value
Nonvested at December 31, 2019	847,972	$ 236.54
Granted	402,546	188.64
Vested	(238,460)	207.50
Forfeited	(39,817)	227.23
Nonvested at June 30, 2020	972,241	224.21

4. Variable Interest Entities

Our involvement with VIEs includes our investments in venture capital and private equity funds, debt funds, private and public portfolio companies and qualified affordable housing projects.

The following table presents the carrying amounts and classification of significant variable interests in consolidated and unconsolidated VIEs as of June 30, 2020 and December 31, 2019:

(Dollars in thousands)	Consolidated VIEs	Unconsolidated VIEs	Maximum Exposure to Loss in Unconsolidated VIEs
June 30, 2020:			
Assets:			
Cash and cash equivalents	$ 9,363	$ —	$ —

Non-marketable and other equity securities (1)	274,685	726,879	726,879
Accrued interest receivable and other assets	607	—	—
Total assets	$ 284,655	$ 726,879	$ 726,879
Liabilities:			
Other liabilities (1)	1,447	332,935	—
Total liabilities	$ 1,447	$ 332,935	$ —
December 31, 2019:			
Assets:			
Cash and cash equivalents	$ 7,629	$ —	$ —
Non-marketable and other equity securities (1)	270,057	689,360	689,360
Accrued interest receivable and other assets	1,117	—	—
Total assets	$ 278,803	$ 689,360	$ 689,360
Liabilities:			
Other liabilities (1)	2,854	302,031	—
Total liabilities	$ 2,854	$ 302,031	$ —

(1) Included in our unconsolidated non-marketable and other equity securities portfolio at June 30, 2020 and December 31, 2019 are investments in qualified affordable housing projects of $533.2 million and $458.5 million, respectively, and related other liabilities consisting of unfunded commitments of $332.9 million and $302.0 million, respectively.

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 Silicon Valley Bank Co., Ltd. (the Bank's joint venture bank in China (“SPD-SVB”)), debt funds, private and public portfolio companies and qualified affordable housing projects. A majority 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.

All 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 15 — “Off-Balance Sheet Arrangements, Guarantees and Other Commitments” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 of this report.

The Bank also has variable interests in low income housing tax credit funds, in connection with fulfilling its responsibilities under the Community Reinvestment Act (“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 6 — “Investment Securities" of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 of this report.

As of June 30, 2020, our exposure to loss with respect to the consolidated VIEs is limited to our net assets of $283.2 million and our exposure to loss for our unconsolidated VIEs is equal to our investment in these assets of $726.9 million.

5. Cash and Cash Equivalents

The following table details our cash and cash equivalents at June 30, 2020 and December 31, 2019:

(Dollars in thousands)	June 30, 2020	December 31, 2019
Cash and due from banks (1)	$ 13,885,058	$ 6,492,443
Securities purchased under agreements to resell (2)	317,048	289,340
Total cash and cash equivalents	$ 14,202,106	$ 6,781,783

(1) At June 30, 2020 and December 31, 2019, $11.0 billion and $3.7 billion, respectively, of our cash and due from banks was deposited at the Federal Reserve Bank and was earning interest at the Federal Funds target rate, and interest-earning deposits in other financial institutions were $2.0 billion and $2.1 billion, respectively.

(2) At June 30, 2020 and December 31, 2019, securities purchased under agreements to resell were collateralized by U.S. Treasury securities and U.S. agency securities with aggregate fair values of $323.5 million and $295.3 million, respectively. None of these securities were sold or repledged as of June 30, 2020 and December 31, 2019.

6. Investment Securities

Our investment securities portfolio consists of: (i) an available-for-sale securities portfolio and a held-to-maturity 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.

Available-for-Sale Securities

The major components of our available-for-sale investment securities portfolio at June 30, 2020 and December 31, 2019 are as follows:

	June 30, 2020			
(Dollars in thousands)	Amortized Cost	Unrealized Gains	Unrealized Losses	Carrying Value
Available-for-sale securities, at fair value:				
U.S. Treasury securities	$ 4,229,988	$ 305,252	$ (5)	$ 4,535,235
U.S. agency debentures	100,000	2,659	—	102,659
Foreign government debt securities	22,540	—	(15)	22,525
Residential mortgage-backed securities:				
Agency-issued mortgage-backed securities	7,465,130	193,484	(3,058)	7,655,556
Agency-issued collateralized mortgage obligations—fixed rate	2,949,805	31,229	(1,494)	2,979,540
Agency-issued commercial mortgage-backed securities	3,033,126	123,276	(4)	3,156,398
Total available-for-sale securities	$ 17,800,589	$ 655,900	$ (4,576)	$ 18,451,913

	December 31, 2019			
(Dollars in thousands)	Amortized Cost	Unrealized Gains	Unrealized Losses	Carrying Value
Available-for-sale securities, at fair value:				
U.S. Treasury securities	$ 6,815,874	$ 82,267	$ (4,131)	$ 6,894,010
U.S. agency debentures	100,000	—	(453)	99,547
Foreign government debt securities	9,037	1	—	9,038
Residential mortgage-backed securities:				
Agency-issued mortgage-backed securities	4,109,372	39,438	(19)	4,148,791
Agency-issued collateralized mortgage obligations—fixed rate	1,520,414	17,929	—	1,538,343
Agency-issued commercial mortgage-backed securities	1,339,651	1,078	(15,539)	1,325,190
Total available-for-sale securities	$ 13,894,348	$ 140,713	$ (20,142)	$ 14,014,919

The following table summarizes sale activity of available-for-sale securities during the three and six months ended June 30, 2020 and 2019 as recorded in the line item “Gains on investment securities, net," a component of noninterest income:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Sales proceeds	$ —	$ 1,017,523	$ 2,654,212	$ 2,189,087
Net realized gains and losses:				
Gross realized gains	—	1,250	61,165	1,250
Gross realized losses	—	(1,525)	—	(5,155)
Net realized gains (losses)	$ —	$ (275)	$ 61,165	$ (3,905)

The following tables summarize our available-for-sale securities in an unrealized loss position for which an allowance for credit losses has not been recorded and summarized into categories of less than 12 months, or 12 months or longer, as of June 30, 2020 and December 31, 2019:

(Dollars in thousands)	June 30, 2020					
	Less than 12 months		12 months or longer (1)		Total	
	Fair Value of Investments	Unrealized Losses	Fair Value of Investments	Unrealized Losses	Fair Value of Investments	Unrealized Losses
Available-for-sale securities:						
U.S. Treasury securities	$ 10,057	$ (5)	$ —	$ —	$ 10,057	$ (5)
Foreign government debt securities	22,525	(15)	—	—	22,525	(15)
Residential mortgage-backed securities:						
Agency-issued mortgage-backed securities	1,424,857	(3,058)	—	—	1,424,857	(3,058)
Agency-issued collateralized mortgage obligations—fixed rate	474,025	(1,494)	—	—	474,025	(1,494)
Agency-issued commercial mortgage-backed securities	101,480	(4)	—	—	101,480	(4)
Total available-for-sale securities (1)	$ 2,032,944	$ (4,576)	$ —	$ —	$ 2,032,944	$ (4,576)

(1) As of June 30, 2020, we identified a total of 50 investments that were in unrealized loss positions with no investment 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 June 30, 2020, 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 available-for-sale securities portfolio are reviewed and monitored on a quarterly basis. As of June 30, 2020, 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 available-for-sale securities portfolio were past due as of June 30, 2020.

(Dollars in thousands)	December 31, 2019					
	Less than 12 months		12 months or longer (1)		Total	
	Fair Value of Investments	Unrealized Losses	Fair Value of Investments	Unrealized Losses	Fair Value of Investments	Unrealized Losses
Available-for-sale securities:						
U.S. Treasury securities	$ 971,572	$ (3,996)	$ 449,850	$ (135)	$ 1,421,422	$ (4,131)
U.S. agency debentures	99,547	(453)	—	—	99,547	(453)
Residential mortgage-backed securities:						
Agency-issued mortgage-backed securities	4,014	(19)	—	—	4,014	(19)
Agency-issued commercial mortgage-backed securities	1,027,232	(15,539)	—	—	1,027,232	(15,539)
Total available-for-sale securities (1)	$ 2,102,365	$ (20,007)	$ 449,850	$ (135)	$ 2,552,215	$ (20,142)

(1) As of December 31, 2019, we identified a total of 58 investments that were in unrealized loss positions, of which 12 investments totaling $0.4 billion with unrealized losses of $0.1 million have been in an unrealized loss position for a period of time greater than 12 months.

The following table summarizes the fixed income securities, carried at fair value, classified as available-for-sale as of June 30, 2020 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 mortgage-backed securities may differ significantly from their contractual maturities because mortgage borrowers have the right to prepay outstanding loan obligations with or without penalties. Mortgage-backed securities classified as available-for-sale 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.

(Dollars in thousands)	June 30, 2020 Total	One Year or Less	After One Year to Five Years	After Five Years to Ten Years	After Ten Years
U.S. Treasury securities	$ 4,535,235	$ 85,518	$ 2,613,342	$ 1,836,375	$ —
U.S. agency debentures	102,659	—	—	102,659	—
Foreign government debt securities	22,525	22,525	—	—	—
Residential mortgage-backed securities:					
Agency-issued mortgage-backed securities	7,655,556	—	—	—	7,655,556
Agency-issued collateralized mortgage obligations—fixed rate	2,979,540	—	491	—	2,979,049
Agency-issued commercial mortgage-backed securities	3,156,398	—	—	1,347,235	1,809,163
Total	$ 18,451,913	$ 108,043	$ 2,613,833	$ 3,286,269	$ 12,443,768

Held-to-Maturity Securities

The components of our held-to-maturity investment securities portfolio at June 30, 2020 and December 31, 2019 are as follows:

(Dollars in thousands)	June 30, 2020 Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value	Allowance for Credit Losses (2)
Held-to-maturity securities, at cost:					
U.S. agency debentures (1)	$ 453,280	$ 20,657	$ —	$ 473,937	$ —
Residential mortgage-backed securities:					
Agency-issued mortgage-backed securities	6,086,154	310,266	(46)	6,396,374	—
Agency-issued collateralized mortgage obligations—fixed rate	1,518,848	26,124	—	1,544,972	—
Agency-issued collateralized mortgage obligations—variable rate	162,250	1,403	(223)	163,430	—
Agency-issued commercial mortgage-backed securities	2,484,072	162,042	—	2,646,114	—
Municipal bonds and notes	2,154,441	162,193	—	2,316,634	222
Total held-to-maturity securities	$ 12,859,045	$ 682,685	$ (269)	$ 13,541,461	$ 222

(1) Consists of pools of Small Business Investment Company debentures issued and guaranteed by the U.S. Small Business Administration, an independent agency of the United States.

(2) Refer to Note 1 - "Basis of Presentation" of the "Notes to Interim Consolidated Financial Statements (unaudited)" under Part i, Item 1 of this report for more information on our credit loss methodology.

(Dollars in thousands)	December 31, 2019 Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Held-to-maturity securities, at amortized cost:				
U.S. agency debentures (1)	$ 518,728	$ 6,640	$ (668)	$ 524,700
Residential mortgage-backed securities:				
Agency-issued mortgage-backed securities	6,992,009	142,209	(2,066)	7,132,152
Agency-issued collateralized mortgage obligations—fixed rate	1,608,032	592	(8,502)	1,600,122
Agency-issued collateralized mortgage obligations—variable rate	178,611	94	(259)	178,446
Agency-issued commercial mortgage-backed securities	2,759,615	56,914	(4,508)	2,812,021
Municipal bonds and notes	1,785,951	83,314	(1,434)	1,867,831
Total held-to-maturity securities	$ 13,842,946	$ 289,763	$ (17,437)	$ 14,115,272

(1) Consists of pools of Small Business Investment Company debentures issued and guaranteed by the U.S. Small Business Administration, an independent agency of the United States.

Allowance for Credit Losses for HTM Securities

The following table summarizes the activity relating to our allowance for credit losses for HTM securities for the three and six months ended June 30, 2020:

Three months ended June 30, 2020 (Dollars in thousands)	Beginning Balance March 31, 2020	Day One Impact of adopting ASC 326	Provision for Credit Losses	Ending Balance June 30, 2020
Municipal bonds and notes	$ 230	$ —	$ (8)	$ 222
Total allowance for credit losses	$ 230	$ —	$ (8)	$ 222

Six months ended June 30, 2020 (Dollars in thousands)	Beginning Balance December 31, 2019	Day One Impact of adopting ASC 326	Provision for Credit Losses	Ending Balance June 30, 2020
Municipal bonds and notes	$ —	$ 174	$ 48	$ 222
Total allowance for credit losses	$ —	$ 174	$ 48	$ 222

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 June 30, 2020:

(Dollars in thousands)	June 30, 2020
Municipal bonds and notes:	
Aaa	$ 1,456,716
Aa1	475,395
Aa2	220,960
Aa3	1,370
Total	$ 2,154,441

The following table summarizes the remaining contractual principal maturities on fixed income investment securities classified as held-to-maturity as of June 30, 2020. 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 mortgage-backed securities may differ significantly from their contractual maturities because mortgage borrowers have the right to prepay outstanding loan obligations with or without penalties. Mortgage-backed securities classified as held-to-maturity 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.

	June 30, 2020									
	Total		One Year or Less		After One Year to Five Years		After Five Years to Ten Years		After Ten Years	
(Dollars in thousands)	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value
U.S. agency debentures	$ 453,280	$ 473,937	$ 2,622	$ 2,666	$ 142,917	$ 147,089	$ 307,741	$ 324,182	$ —	$ —
Residential mortgage-backed securities:										
Agency-issued mortgage-backed securities	6,086,154	6,396,374	8,369	8,467	40,337	41,199	640,876	664,186	5,396,572	5,682,522
Agency-issued collateralized mortgage obligations —fixed rate	1,518,848	1,544,972	—	—	—	—	612,478	625,694	906,370	919,278
Agency-issued collateralized mortgage obligations —variable rate	162,250	163,430	—	—	—	—	—	—	162,250	163,430
Agency-issued commercial mortgage-backed securities	2,484,072	2,646,114	—	—	—	—	102,497	120,165	2,381,575	2,525,949
Municipal bonds and notes	2,154,441	2,316,634	31,814	32,094	142,152	147,934	479,079	517,215	1,501,396	1,619,391
Total	$12,859,045	$13,541,461	$ 42,805	$ 43,227	$ 325,406	$ 336,222	$2,142,671	$2,251,442	$10,348,163	$10,910,570

Non-marketable and Other Equity Securities

The major components of our non-marketable and other equity securities portfolio at June 30, 2020 and December 31, 2019 are as follows:

(Dollars in thousands)	June 30, 2020	December 31, 2019
Non-marketable and other equity securities:		
Non-marketable securities (fair value accounting):		
Consolidated venture capital and private equity fund investments (1)	68,214	$ 87,180
Unconsolidated venture capital and private equity fund investments (2)	145,122	178,217
Other investments without a readily determinable fair value (3)	56,206	55,255
Other equity securities in public companies (fair value accounting) (4)	45,288	59,200
Non-marketable securities (equity method accounting) (5):		
Venture capital and private equity fund investments	233,996	215,367
Debt funds	7,004	7,271
Other investments	181,543	152,863
Investments in qualified affordable housing projects, net (6)	533,205	458,476
Total non-marketable and other equity securities	$ 1,270,578	$ 1,213,829

(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 June 30, 2020 and December 31, 2019 (fair value accounting):

	June 30, 2020		December 31, 2019	
(Dollars in thousands)	Amount	Ownership %	Amount	Ownership %
Strategic Investors Fund, LP	$ 4,414	12.6%	$ 5,729	12.6%
Capital Preferred Return Fund, LP	36,890	20.0	45,341	20.0
Growth Partners, LP	26,776	33.0	35,976	33.0
CP I, LP	134	10.7	134	10.7
Total consolidated venture capital and private equity fund investments	$ 68,214		$ 87,180	

(2) The carrying value represents investments in 191 and 205 funds (primarily venture capital funds) at June 30, 2020 and December 31, 2019, 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 March 31st for our June 30th 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 changes to the carrying amount of other investments without a readily determinable fair value for the six months ended June 30, 2020:

(Dollars in thousands)	Six months ended June 30, 2020	Cumulative Adjustments
Measurement alternative:		
Carrying value at June 30, 2020	$ 56,206	
Carrying value adjustments:		
Impairment	$ —	$ (460)
Upward changes for observable prices	—	1,810
Downward changes for observable prices	(3,076)	(7,671)

(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 June 30, 2020 and December 31, 2019 (equity method accounting):

	June 30, 2020		December 31, 2019	
(Dollars in thousands)	Amount	Ownership %	Amount	Ownership %
Venture capital and private equity fund investments:				
Strategic Investors Fund II, LP	$ 3,083	8.6%	$ 3,612	8.6%
Strategic Investors Fund III, LP	14,211	5.9	15,668	5.9
Strategic Investors Fund IV, LP	24,743	5.0	27,064	5.0
Strategic Investors Fund V funds	47,734	Various	46,830	Various
CP II, LP (i)	4,646	5.1	5,907	5.1
Other venture capital and private equity fund investments	139,579	Various	116,286	Various
Total venture capital and private equity fund investments	$ 233,996		$ 215,367	
Debt funds:				
Gold Hill Capital 2008, LP (ii)	$ 5,334	15.5%	$ 5,525	15.5%
Other debt funds	1,670	Various	1,746	Various
Total debt funds	$ 7,004		$ 7,271	
Other investments:				
SPD Silicon Valley Bank Co., Ltd.	$ 105,863	50.0%	$ 74,190	50.0%
Other investments	75,680	Various	78,673	Various
Total other investments	$ 181,543		$ 152,863	

(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 June 30, 2020 and December 31, 2019:

(Dollars in thousands)	June 30, 2020	December 31, 2019
Investments in qualified affordable housing projects, net	$ 533,205	$ 458,476
Other liabilities	332,935	302,031

The following table presents other information relating to our investments in qualified affordable housing projects for the three and six months ended June 30, 2020 and 2019:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Tax credits and other tax benefits recognized	$ 19,723	$ 10,988	$ 31,482	$ 20,245
Amortization expense included in provision for income taxes (i)	10,388	6,758	21,859	14,394

(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 for the three and six months ended June 30, 2020 and 2019 as recorded in the line item “Gains on investment securities, net," a component of noninterest income:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Net gains (losses) on non-marketable and other equity securities:				
Non-marketable securities (fair value accounting):				
Consolidated venture capital and private equity fund investments	$ 1,277	$ 14,830	$ 4,390	$ 18,119
Unconsolidated venture capital and private equity fund investments	(2,465)	10,152	(1,213)	18,158
Other investments without a readily determinable fair value	(893)	167	(3,836)	5,172
Other equity securities in public companies (fair value accounting)	12,988	282	5,484	12,085
Non-marketable securities (equity method accounting):				
Venture capital and private equity fund investments	26,393	22,351	18,347	25,140
Debt funds	94	1,342	(268)	1,342
Other investments	(2,526)	(1,151)	(3,146)	615
Total net gains on non-marketable and other equity securities	$ 34,868	$ 47,973	$ 19,758	$ 80,631
Less: realized net gains on sales of non-marketable and other equity securities	264	2,524	215	12,359
Net gains on non-marketable and other equity securities still held	$ 34,604	$ 45,449	$ 19,543	$ 68,272

7. Loans and Allowance for Credit Losses: Loans and Unfunded Credit Commitments

We serve a variety of commercial clients in the technology, life science/healthcare, private equity/venture capital and premium wine industries. 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 energy and resource innovation (“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, life science/healthcare and ERI clients are reported under the Investor Dependent, Cash Flow Dependent and Balance Sheet Dependent risk-based segments below. Loans made to private equity/venture capital firm clients typically enable them to fund investments prior to their receipt of funds from capital calls. 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 Bank 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 Community Reinvestment Act. These loans are included within “construction loans” below and are primarily secured by real estate.

CECL Adoption

On January 1, 2020, we adopted the new credit loss guidance, CECL, and all related amendments. Our loan portfolio was pooled into six portfolio segments that share similar risk characteristics and represent the level at which we developed our systematic methodology to determine our allowance for credit losses. Further, our portfolio segments were disaggregated and grouped into ten classes of financing receivable that represent the level at which we monitor and assess credit risk, which we refer to as "risk-based segments". As such, our funded loans and credit quality disclosures below are presented at the risk-based segment level of disaggregation. As of June 30, 2020, we have seven portfolio segments and eleven classes of financing receivable reflective of the funding of SBA loans under the PPP. The comparative information below has been reclassified to conform to current period presentations. However, the financial results continue to be reported under the accounting standards in effect for those periods. Certain prior period credit quality disclosures related to impaired loans and our individually and collectively evaluated loan portfolio have been superseded with the current guidance and have not been included below, please refer to Note 10 - “Loans, Allowance for Loan Losses and Allowance for Unfunded Credit Commitments" under Part II, Item 8 of our 2019 Form 10-K for additional prior period information.

Refer to Note 1 — “Basis of Presentation” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 of this report for additional information regarding the adoption of CECL.

The composition of loans at amortized cost basis broken out by risk-based segment at June 30, 2020 and December 31, 2019 is presented in the following table:

(Dollars in thousands)	June 30, 2020	December 31, 2019
Private equity/venture capital	$ 17,901,117	$ 17,696,794
Investor dependent:		
Early stage	1,797,576	1,624,221
Mid stage	1,435,772	1,047,398
Later stage	1,905,528	1,663,576
Total investor dependent	5,138,876	4,335,195
Cash flow dependent:		
Sponsor led buyout	2,057,439	2,185,497
Other	2,787,807	2,238,741
Total cash flow dependent	4,845,246	4,424,238
Private bank (4)	3,816,277	3,492,269
Balance sheet dependent	1,693,071	1,286,153
Premium wine (4)	1,039,456	1,062,264
Other (4)	457,234	867,723
SBA loans	1,835,945	—
Total loans (1) (2) (3)	$ 36,727,222	$ 33,164,636
Allowance for credit losses	(589,828)	(304,924)
Net loans	$ 36,137,394	$ 32,859,712

(1) Total loans at amortized cost is net of unearned income of $220 million and $163 million at June 30, 2020 and December 31, 2019, respectively.
(2) Included within our total loan portfolio are credit card loans of $280 million and $395 million at June 30, 2020 and December 31, 2019, respectively.
(3) Included within our total loan portfolio are construction loans of $147 million and $183 million at June 30, 2020 and December 31, 2019, respectively.
(4) Our total loans secured by real estate at amortized cost at June 30, 2020 and December 31, 2019 were comprised of the following:

(Dollars in thousands)	June 30, 2020	December 31, 2019
Real estate secured loans:		
Private bank:		
Loans for personal residence	$ 2,714,069	$ 2,829,880
Loans to eligible employees	439,006	401,396
Home equity lines of credit	58,284	55,461
Other	42,464	38,880
Total private bank loans secured by real estate	$ 3,253,823	$ 3,325,617
Premium wine	777,560	820,730
Other	470,567	—
Total real estate secured loans	$ 4,501,950	$ 4,146,347

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; these translate to an internal rating of “Criticized.” All of our nonaccrual loans are risk-rated 8 or 9 and are classified under the nonperforming category. 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 allowance for credit losses for loans.

The following table summarizes the credit quality indicators, broken out by risk-based segment, as of June 30, 2020 and December 31, 2019:

(Dollars in thousands)	Pass	Criticized	Nonperforming (Nonaccrual)	Total
June 30, 2020:				
Private equity/venture capital	$ 17,892,840	$ 8,268	$ 9	$ 17,901,117
Investor dependent:				
Early stage	1,549,222	223,932	24,422	1,797,576
Mid stage	1,259,442	168,211	8,119	1,435,772
Later stage	1,719,152	175,878	10,498	1,905,528
Total investor dependent	4,527,816	568,021	43,039	5,138,876
Cash flow dependent:				
Sponsor led buyout	1,819,253	216,528	21,658	2,057,439
Other	2,441,376	341,114	5,317	2,787,807
Total cash flow dependent	4,260,629	557,642	26,975	4,845,246
Private bank	3,787,830	21,930	6,517	3,816,277
Balance sheet dependent	1,588,207	93,022	11,842	1,693,071
Premium wine	926,549	111,226	1,681	1,039,456
Other	456,947	226	61	457,234
SBA loans	1,688,030	143,713	4,202	1,835,945
Total loans (1)	$ 35,128,848	$ 1,504,048	$ 94,326	$ 36,727,222
December 31, 2019:				
Private equity/venture capital	$ 17,708,550	$ 4,247	$ —	$ 17,712,797
Investor dependent				
Early stage	1,436,022	206,310	11,093	1,653,425
Mid stage	924,002	125,451	17,330	1,066,783
Later stage	1,490,561	201,819	6,296	1,698,676
Total investor dependent	3,850,585	533,580	34,719	4,418,884
Cash flow dependent				
Sponsor led buyout	2,039,847	118,588	44,585	2,203,020
Other	2,141,766	93,400	17,681	2,252,847
Total cash flow dependent	4,181,613	211,988	62,266	4,455,867
Private bank	3,472,138	11,601	5,480	3,489,219
Balance sheet dependent	1,231,961	65,343	—	1,297,304
Premium wine	1,026,973	36,335	204	1,063,512
Other	890,059	62	—	890,121
Total loans (1)	$ 32,361,879	$ 863,156	$ 102,669	$ 33,327,704

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.

The following table summarizes the credit quality indicators, broken out by risk-based segments and vintage year, as of June 30, 2020:

	Term Loans by Origination Year								
(Dollars in thousands)	2020	2019	2018	2017	2016	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Total
Private equity/venture capital:									
Risk rating:									
Pass	$ 339,398	$ 188,421	$ 71,803	$ 39,857	$ 3,577	$ 16,055	$ 17,228,948	$ 4,781	$ 17,892,840
Criticized	54	—	—	—	—	—	8,214	—	8,268
Nonperforming	—	9	—	—	—	—	—	—	9
Total private equity/venture capital	$ 339,452	$ 188,430	$ 71,803	$ 39,857	$ 3,577	$ 16,055	$ 17,237,162	$ 4,781	$ 17,901,117
Investor dependent:									
Early stage:									
Risk rating:									
Pass	$ 576,597	$ 614,464	$ 216,902	$ 53,103	$ 4,304	$ 355	$ 83,497	$ —	$ 1,549,222
Criticized	38,123	93,416	53,065	12,949	6,555	5,702	14,122	—	223,932
Nonperforming	2,085	8,670	7,542	2,771	2,197	—	1,157	—	24,422
Total early stage	$ 616,805	$ 716,550	$ 277,509	$ 68,823	$ 13,056	$ 6,057	$ 98,776	$ —	$ 1,797,576
Mid stage:									
Risk rating:									
Pass	$ 527,905	$ 342,149	$ 194,287	$ 59,075	$ 1,502	$ 4,448	$ 130,076	$ —	$ 1,259,442
Criticized	32,514	53,500	48,379	13,833	3,345	2,907	13,733	—	168,211
Nonperforming	—	210	5,646	2,041	—	—	222	—	8,119
Total mid stage	$ 560,419	$ 395,859	$ 248,312	$ 74,949	$ 4,847	$ 7,355	$ 144,031	$ —	$ 1,435,772
Later stage:									
Risk rating:									
Pass	$ 495,546	$ 564,400	$ 188,404	$ 73,703	$ 6,539	$ 7,860	$ 382,700	$ —	$ 1,719,152
Criticized	32,347	25,890	53,707	7,074	—	6,506	50,354	—	175,878
Nonperforming	—	1,435	2,374	3,885	—	—	2,804	—	10,498
Total later stage	$ 527,893	$ 591,725	$ 244,485	$ 84,662	$ 6,539	$ 14,366	$ 435,858	$ —	$ 1,905,528
Total investor dependent	$ 1,705,117	$ 1,704,134	$ 770,306	$ 228,434	$ 24,442	$ 27,778	$ 678,665	$ —	$ 5,138,876
Cash flow dependent:									
Sponsor led buyout:									
Risk rating:									
Pass	$ 374,547	$ 637,287	$ 357,322	$ 262,844	$ 58,014	$ —	$ 129,239	$ —	$ 1,819,253
Criticized	33,714	69,764	51,479	31,801	11,958	—	17,812	—	216,528
Nonperforming	19	11,937	—	7,218	—	—	2,484	—	21,658
Total sponsor led buyout	$ 408,280	$ 718,988	$ 408,801	$ 301,863	$ 69,972	$ —	$ 149,535	$ —	$ 2,057,439
Other									
Risk rating:									
Pass	$ 339,862	$ 639,167	$ 193,797	$ 114,650	$ 41,605	$ 347	$ 1,111,948	$ —	$ 2,441,376
Criticized	14,326	71,911	88,065	2,807	581	—	163,424	—	341,114
Nonperforming	—	—	1,140	—	—	—	4,177	—	5,317
Total other	$ 354,188	$ 711,078	$ 283,002	$ 117,457	$ 42,186	$ 347	$ 1,279,549	$ —	$ 2,787,807
Total cash flow dependent	$ 762,468	$ 1,430,066	$ 691,803	$ 419,320	$ 112,158	$ 347	$ 1,429,084	$ —	$ 4,845,246
Private bank:									
Risk rating:									
Pass	$ 596,908	$ 1,062,779	$ 443,164	$ 440,490	$ 363,380	$ 531,090	$ 277,942	$ 72,077	$ 3,787,830
Criticized	—	5,859	2,926	1,805	2,500	8,238	602	—	21,930
Nonperforming	—	—	—	1,570	—	2,901	2,046	—	6,517
Total private bank	$ 596,908	$ 1,068,638	$ 446,090	$ 443,865	$ 365,880	$ 542,229	$ 280,590	$ 72,077	$ 3,816,277

Balance sheet dependent:									
Risk rating:									
Pass	$ 216,879	$ 221,481	$ 247,818	$ 33,048	$ 4,545	$ —	$ 864,436	$ —	$ 1,588,207
Criticized	—	8,627	2,494	1,464	—	—	80,437	—	93,022
Nonperforming	14	—	—	—	—	—	11,828	—	11,842
Total balance sheet dependent	$ 216,893	$ 230,108	$ 250,312	$ 34,512	$ 4,545	$ —	$ 956,701	$ —	$ 1,693,071
Premium wine:									
Risk rating:									
Pass	$ 85,177	$ 237,520	$ 73,632	$ 92,594	$ 93,214	$ 177,246	$ 167,166	$ —	$ 926,549
Criticized	2,042	12,674	35,964	353	3,980	13,327	42,886	—	111,226
Nonperforming	—	—	—	—	1,668	—	13	—	1,681
Total Premium wine	$ 87,219	$ 250,194	$ 109,596	$ 92,947	$ 98,862	$ 190,573	$ 210,065	$ —	$ 1,039,456
Other:									
Risk rating:									
Pass	$ 21,785	$ 240,902	$ 40,279	$ 38,752	$ 58,554	$ 33,212	$ 23,256	$ 207	$ 456,947
Criticized	100	—	—	—	—	—	126	—	226
Nonperforming	—	61	—	—	—	—	—	—	61
Total other	$ 21,885	$ 240,963	$ 40,279	$ 38,752	$ 58,554	$ 33,212	$ 23,382	$ 207	$ 457,234
SBA loans:									
Risk rating:									
Pass	$ 1,688,030	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 1,688,030
Criticized	143,713	—	—	—	—	—	—	—	143,713
Nonperforming	4,202	—	—	—	—	—	—	—	4,202
Total SBA loans	$ 1,835,945	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 1,835,945
Total loans	$ 5,565,887	$ 5,112,533	$ 2,380,189	$ 1,297,687	$ 668,018	$ 810,194	$ 20,815,649	$ 77,065	$ 36,727,222

The following tables summarize the activity relating to our allowance for credit losses for loans for the three and six months ended June 30, 2020 and 2019, broken out by risk-based segment:

Three months ended June 30, 2020 **(Dollars in thousands)**	**Beginning Balance March 31, 2020**	**Charge-offs**	**Recoveries**	**Provision for (Reduction of) Credit Losses**	**Foreign Currency Translation Adjustments**	**Ending Balance June 30, 2020**
Private equity/venture capital	$ 56,774	$ —	$ —	$ (3,051)	$ —	$ 53,723
Investor dependent:						
Early stage	127,189	(1,764)	2,390	20,451	4	148,270
Mid stage	51,962	(3,653)	1,269	6,861	(46)	56,393
Later stage	96,550	—	—	(8,950)	4	87,604
Total investor dependent	275,701	(5,417)	3,659	18,362	(38)	292,267
Cash flow dependent:						
Sponsor led buyout	42,091	—	—	12,763	(1)	54,853
Other	39,416	(3,385)	1	7,068	—	43,100
Total cash flow dependent	81,507	(3,385)	1	19,831	(1)	97,953
Private bank	87,795	(1,035)	—	4,585	—	91,345
Balance sheet dependent	23,235	(4,900)	—	6,393	—	24,728
Premium wine	12,377	—	—	(58)	—	12,319
Other	11,574	(318)	413	1,979	(13)	13,635
SBA loans	—	—	—	3,858	—	3,858
Total allowance for credit losses	$ 548,963	$ (15,055)	$ 4,073	$ 51,899	$ (52)	$ 589,828

Three months ended June 30, 2019 (Dollars in thousands)	Beginning Balance March 31, 2019	Charge-offs	Recoveries	Provision for (Reduction of) Credit Losses	Foreign Currency Translation Adjustments	Ending Balance June 30, 2019
Private equity/venture capital	$ 95,311	$ (2,047)	$ —	$ 8,336	$ (347)	$ 101,253
Investor dependent:						
Early stage	26,730	(7,627)	3,357	8,878	(369)	30,969
Mid stage	38,163	(13,395)	900	2,708	(112)	28,264
Later stage	30,163	—	1,133	6,932	(288)	37,940
Total investor dependent	95,056	(21,022)	5,390	18,518	(769)	97,173
Cash flow dependent:						
Sponsor led buyout	40,933	(2,402)	—	(6,677)	277	32,131
Other	20,514	—	4,397	(376)	16	24,551
Total cash flow dependent	61,447	(2,402)	4,397	(7,053)	293	56,682
Private Bank	19,964	(960)	15	1,438	(60)	20,397
Balance sheet dependent	21,632	—	—	(4,566)	190	17,256
Premium wine	3,949	—	—	290	(12)	4,227
Other	2,792	(4)	18	2,185	(91)	4,900
Total allowance for credit losses	$ 300,151	$ (26,435)	$ 9,820	$ 19,148	$ (796)	$ 301,888

Six months ended June 30, 2020 (Dollars in thousands)	Beginning Balance December 31, 2019	Impact of adopting ASC 326	Charge-offs	Recoveries	Provision for (Reduction of) Credit Losses	Foreign Currency Translation Adjustments	Ending Balance June 30, 2020
Private equity/venture capital	$ 107,285	$ (69,888)	$ —	$ —	$ 16,506	$ (180)	$ 53,723
Investor dependent:							
Early stage	26,245	39,911	(11,947)	3,963	90,665	(567)	148,270
Mid stage	15,936	6,963	(12,985)	4,606	42,006	(133)	56,393
Later stage	40,189	24,750	(13,984)	—	37,088	(439)	87,604
Total investor dependent	82,370	71,624	(38,916)	8,569	169,759	(1,139)	292,267
Cash flow dependent:							
Sponsor led buyout	42,939	3,151	(2,624)	2,845	8,675	(133)	54,853
Other	25,159	(3,056)	(3,385)	1	24,506	(125)	43,100
Total cash flow dependent	68,098	95	(6,009)	2,846	33,181	(258)	97,953
Private bank	21,551	12,615	(1,616)	—	59,075	(280)	91,345
Balance sheet dependent	12,722	(1,364)	(4,900)	—	18,344	(74)	24,728
Premium wine	5,296	3,650	(192)	—	3,605	(40)	12,319
Other	7,602	8,732	(318)	413	(3,528)	734	13,635
SBA loans	—	—	—	—	3,858	—	3,858
Total allowance for credit losses	$ 304,924	$ 25,464	$ (51,951)	$ 11,828	$ 300,800	$ (1,237)	$ 589,828

Six months ended June 30, 2019 (Dollars in thousands)	Beginning Balance December 31, 2018	Charge-offs	Recoveries	Provision for (Reduction of) Credit Losses	Foreign Currency Translation Adjustments	Ending Balance June 30, 2019
Private equity/venture capital	$ 93,781	$ (2,047)	$ —	$ 9,819	$ (300)	$ 101,253
Investor dependent:						
Early stage	25,885	(9,295)	3,925	10,764	(310)	30,969
Mid stage	20,999	(19,911)	903	25,665	608	28,264
Later stage	25,217	—	1,777	11,103	(157)	37,940
Total investor dependent	72,101	(29,206)	6,605	47,532	141	97,173
Cash flow dependent:						
Sponsor led buyout	44,274	(2,402)	—	(9,916)	175	32,131
Other	21,754	(716)	4,397	(884)	—	24,551
Total cash flow dependent	66,028	(3,118)	4,397	(10,800)	175	56,682
Private Bank	20,583	(1,019)	225	692	(84)	20,397
Balance sheet dependent	21,707	—	—	(4,639)	188	17,256
Premium wine	3,646	—	—	584	(3)	4,227
Other	3,057	(45)	18	1,781	89	4,900
Total allowance for credit losses	$ 280,903	$ (35,435)	$ 11,245	$ 44,969	$ 206	$ 301,888

The following table summarizes the aging of our loans broken out by risk-based segments as of June 30, 2020 and December 31, 2019:

(Dollars in thousands)	30 - 59 Days Past Due	60 - 89 Days Past Due	Equal to or Greater Than 90 Days Past Due	Total Past Due	Current	Total	Loans Past Due 90 Days or More Still Accruing Interest
June 30, 2020:							
Private equity/venture capital	$ 54	$ 10	$ 9	$ 73	$ 17,901,044	$ 17,901,117	$ —
Investor dependent:							
Early stage	742	316	2,809	3,867	1,793,709	1,797,576	73
Mid stage	4,190	3,157	5,493	12,840	1,422,932	1,435,772	—
Later stage	2,502	3,900	—	6,402	1,899,126	1,905,528	—
Total investor dependent	7,434	7,373	8,302	23,109	5,115,767	5,138,876	73
Cash flow dependent:							
Sponsor led buyout	46	14	—	60	2,057,379	2,057,439	—
Other	2,316	183	3,988	6,487	2,781,320	2,787,807	—
Total cash flow dependent	2,362	197	3,988	6,547	4,838,699	4,845,246	—
Private bank	601	—	2,749	3,350	3,812,927	3,816,277	—
Balance sheet dependent	4,777	255	—	5,032	1,688,039	1,693,071	—
Premium wine	1	—	—	1	1,039,455	1,039,456	—
Other	1	39	82	122	457,112	457,234	3
SBA loans	—	—	—	—	1,835,945	1,835,945	—
Total loans (1)	$ 15,230	$ 7,874	$ 15,130	$ 38,234	$ 36,688,988	$ 36,727,222	$ 76
December 31, 2019:							
Private equity/venture capital	$ 97,739	$ 383	$ 3,150	$ 101,272	$ 17,611,525	17,712,797	$ 3,150
Investor dependent:							
Early stage	1,307	22,062	723	24,092	1,629,333	1,653,425	—
Mid stage	10,025	6,999	—	17,024	1,049,759	1,066,783	—
Later stage	8,113	500	10,569	19,182	1,679,494	1,698,676	—
Total investor dependent	19,445	29,561	11,292	60,298	4,358,586	4,418,884	—
Cash flow dependent							
Sponsor led buyout	—	—	—	—	2,203,020	2,203,020	—
Other	2,426	3,061	2	5,489	2,247,358	2,252,847	—
Total cash flow dependent	2,426	3,061	2	5,489	4,450,378	4,455,867	—
Private bank	6,582	2,049	1,544	10,175	3,479,044	3,489,219	365
Balance sheet dependent	2,731	—	—	2,731	1,294,573	1,297,304	—
Premium wine	8,435	3,170	—	11,605	1,051,907	1,063,512	—
Other	17	—	—	17	890,104	890,121	—
Total loans (1)	$ 137,375	$ 38,224	$ 15,988	$ 191,587	$ 33,136,117	$ 33,327,704	$ 3,515

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.

Nonaccrual Loans

The following tables summarize our nonaccrual loan activity by risk-based segment for the three and six months ended June 30, 2020 and 2019:

Three months ended June 30, 2020 (Dollars in thousands)	Beginning Balance March 31, 2020	Additions	Paydowns and Other Reductions	Charge-offs	Ending Balance June 30, 2020
Private equity/venture capital	$ —	$ 9	$ —	$ —	$ 9
Investor dependent:					
Early stage	18,414	9,606	(3,141)	(457)	24,422
Mid stage	12,180	494	(399)	(4,156)	8,119
Later stage	14,443	959	(4,904)	—	10,498
Total investor dependent	45,037	11,059	(8,444)	(4,613)	43,039
Cash flow dependent:					
Sponsor led buyout	—	21,658	—	—	21,658
Other	13	8,580	(3,276)	—	5,317
Total cash flow dependent	13	30,238	(3,276)	—	26,975
Private bank	4,857	2,634	(974)	—	6,517
Balance sheet dependent	—	16,742	(4,900)	—	11,842
Premium wine	700	998	(17)	—	1,681
Other	—	234	(173)	—	61
SBA loans	—	4,202	—	—	4,202
Total nonaccrual loans	$ 50,607	$ 66,116	$ (17,784)	$ (4,613)	$ 94,326

Three months ended June 30, 2019 (Dollars in thousands)	Beginning Balance March 31, 2019	Additions	Paydowns and Other Reductions	Charge-offs	Ending Balance June 30, 2019
Private equity/venture capital	$ 5,947	$ —	$ (3,900)	$ (2,047)	$ —
Investor dependent:					
Early stage	8,697	8,379	(5,231)	(1,555)	10,290
Mid stage	32,099	10,392	(869)	(12,923)	28,699
Later stage	23,140	18,507	(3,301)	—	38,346
Total investor dependent	63,936	37,278	(9,401)	(14,478)	77,335
Cash flow dependent:					
Sponsor led buyout	38,237	—	(27,470)	(2,402)	8,365
Other	16,690	79	(16,690)	—	79
Total cash flow dependent	54,927	79	(44,160)	(2,402)	8,444
Private bank	3,809	1,865	(22)	(8)	5,644
Balance sheet dependent	4,736	238	—	—	4,974
Premium wine	268	—	(24)	—	244
Other	—	—	—	—	—
Total nonaccrual loans (1)	$ 133,623	$ 39,460	$ (57,507)	$ (18,935)	$ 96,641

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.

Six months ended June 30, 2020 (Dollars in thousands)	Beginning Balance December 31, 2019	Additions	Paydowns and Other Reductions	Charge-offs	Ending Balance June 30, 2020
Private equity/venture capital	$ —	$ 9	$ —	$ —	$ 9
Investor dependent:					
Early stage	11,093	21,949	(5,905)	(2,715)	24,422
Mid stage	17,330	12,585	(787)	(21,009)	8,119
Later stage	6,296	12,183	(4,776)	(3,205)	10,498
Total investor dependent	34,719	46,717	(11,468)	(26,929)	43,039
Cash flow dependent:					
Sponsor led buyout	44,585	21,658	(41,961)	(2,624)	21,658
Other	17,681	8,580	(20,926)	(18)	5,317
Total cash flow dependent	62,266	30,238	(62,887)	(2,642)	26,975
Private bank	5,480	2,634	(1,016)	(581)	6,517
Balance sheet dependent	—	16,742	(4,900)	—	11,842
Premium wine	204	1,686	(17)	(192)	1,681
Other	—	234	(173)	—	61
SBA loans	—	4,202	—	—	4,202
Total nonaccrual loans (1)	$ 102,669	$ 102,462	$ (80,461)	$ (30,344)	$ 94,326

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.

Six months ended June 30, 2019 (Dollars in thousands)	Beginning Balance December 31, 2018	Additions	Paydowns and Other Reductions	Charge-offs	Ending Balance June 30, 2019
Private equity/venture capital	$ 3,700	$ 2,247	$ (3,900)	$ (2,047)	$ —
Investor dependent:					
Early stage	7,616	12,812	(8,443)	(1,695)	10,290
Mid stage	4,751	42,491	(1,390)	(17,153)	28,699
Later stage	11,385	30,570	(3,609)	—	38,346
Total investor dependent	23,752	85,873	(13,442)	(18,848)	77,335
Cash flow dependent:					
Sponsor led buyout	39,534	—	(28,767)	(2,402)	8,365
Other	17,156	79	(16,690)	(466)	79
Total cash flow dependent	56,690	79	(45,457)	(2,868)	8,444
Private bank	3,919	1,880	(88)	(67)	5,644
Balance sheet dependent	5,004	238	(268)	—	4,974
Premium wine	285	—	(41)	—	244
Other	792	—	(792)	—	—
Total nonaccrual loans (1)	$ 94,142	$ 90,317	$ (63,988)	$ (23,830)	$ 96,641

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.

The following table summarizes our nonaccrual loans with no allowance for credit loss at June 30, 2020 and December 31, 2019:

(Dollars in thousands)	June 30, 2020		December 31, 2019	
	Nonaccrual Loans	Nonaccrual Loans with no Allowance for Credit Loss	Nonaccrual Loans	Nonaccrual Loans with no Allowance for Credit Loss
Private equity/venture capital	$ 9	$ 9	$ —	$ —
Investor dependent:				
Early stage	24,422	—	11,093	460
Mid stage	8,119	368	17,330	274
Later stage	10,498	4	6,296	—
Total investor dependent	43,039	372	34,719	734
Cash flow dependent:				
Sponsor led buyout	21,658	—	44,585	—
Other	5,317	—	17,681	2,782
Total cash flow dependent	26,975	—	62,266	2,782
Private bank	6,517	6,517	5,480	3,714
Balance sheet dependent	11,842	—	—	—
Premium wine	1,681	997	204	—
Other	61	61	—	—
SBA loans	4,202	—	—	—
Total nonaccrual loans (1)	$ 94,326	$ 7,956	$ 102,669	$ 7,230

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.

Troubled Debt Restructurings

As of June 30, 2020, we had 18 TDRs with a total carrying value of $56.3 million where concessions have been granted to borrowers experiencing financial difficulties, in an attempt to maximize collection. There were $0.4 million of unfunded commitments available for funding to the clients associated with these TDRs as of June 30, 2020.

The following table summarizes our loans modified in TDRs, broken out by risk-based segment, at June 30, 2020 and December 31, 2019:

(Dollars in thousands)	June 30, 2020	December 31, 2019
Loans modified in TDRs:		
Private equity/venture capital	$ —	$ —
Investor dependent		
Early stage	5,354	9,471
Mid stage	11,130	5,189
Later stage	10,595	23,318
Total investor dependent	27,079	37,978
Cash flow dependent		
Sponsor led buyout	10,350	55,443
Other	5,326	—
Total cash flow dependent	15,676	55,443
Private bank	1,318	2,104
Balance sheet dependent	—	—
Premium wine	12,208	13,457
Other	—	—
SBA loans	—	—
Total loans modified in TDRs (1)	$ 56,281	$ 108,982

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.

The following table summarizes the recorded investment in loans modified in TDRs, broken out by risk-based segment, for modifications made during the three and six months ended June 30, 2020 and 2019:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Loans modified in TDRs during the period:				
Private equity/venture capital	$ —	$ —	$ —	$ —
Investor dependent				
Early stage	93	—	93	616
Mid stage	5,281	3,521	11,130	3,521
Later stage	3,966	14,214	6,710	14,214
Total investor dependent	9,340	17,735	17,933	18,351
Cash flow dependent				
Sponsor led buyout	—	48,557	—	48,557
Other	3,986	—	3,986	—
Total cash flow dependent	3,986	48,557	3,986	48,557
Private bank	—	1,865	—	1,865
Balance sheet dependent	—	—	—	—
Premium wine	997	—	998	—
Other	—	—	—	—
SBA loans	—	—	—	—
Total loans modified in TDRs during the period (1) (2)	$ 14,323	$ 68,157	$ 22,917	$ 68,773

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.
(2) There were $5.0 million and $17.5 million of partial charge-offs for the three and six months ended June 30, 2020, respectively and $3.4 million and $5.6 million of partial charge-offs for the three and six months ended June 30, 2019.

During the three months ended June 30, 2020, all new TDRs of $14.3 million were modified through payment deferrals granted to our clients. During the six months ended June 30, 2020, new TDRs of $22.5 million were modified through payment deferrals granted to our clients and $0.4 million were modified through forgiveness of principal. During the three and six months ended June 30, 2019, $66.3 million and $66.9 million, respectively, were modified through payment deferrals granted to our clients. During the three and six months ended June 30, 2019, $1.9 million were modified through partial forgiveness of principal for both periods presented.

The following table summarizes the recorded investment in loans modified in TDRs within the previous 12 months that subsequently defaulted during the three and six months ended June 30, 2020 and 2019:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	**2020**	**2019**	**2020**	**2019**
TDRs modified within the previous 12 months that defaulted during the period:				
Private equity/venture capital	$ —	$ —	$ —	$ —
Investor dependent				
Early stage	—	—	—	—
Mid stage	—	—	—	—
Later stage	—	—	—	—
Total investor dependent	—	—	—	—
Cash flow dependent				
Sponsor led buyout	10,350	—	10,350	—
Other	—	—	—	—
Total cash flow dependent	10,350	—	10,350	—
Private bank	—	—	—	—
Balance sheet dependent	—	—	—	—
Premium wine	—	—	—	—
Other	—	—	—	—
SBA loans	—	—	—	—
Total TDRs modified within the previous 12 months that defaulted in the period (1)	$ 10,350	$ —	$ 10,350	$ —

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.

Charge-offs and defaults on previously restructured loans are evaluated to determine the impact to the allowance for credit losses 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 allowance for credit losses for loans as of June 30, 2020.

Allowance for Credit Losses: Unfunded Credit Commitments

We maintain a separate allowance for credit losses for unfunded credit commitments that is determined using a methodology that is inherently similar to the methodology used for calculating the allowance for credit losses for loans.

The following table summarizes the activity relating to our allowance for credit losses for unfunded credit commitments for the three and six months ended June 30, 2020 and 2019:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Allowance for credit losses: unfunded credit commitments, beginning balance	$ 84,690	$ 57,970	$ 67,656	$ 55,183
Impact of adopting ASC 326	—	—	22,826	—
Provision for credit losses	14,590	4,798	9,113	7,528
Foreign currency translation adjustments	14	(104)	(301)	(47)
Allowance for credit losses: unfunded credit commitments, ending balance (1)	$ 99,294	$ 62,664	$ 99,294	$ 62,664

(1) The "allowance for credit losses: unfunded credit commitments" is included as a component of "other liabilities" on our unaudited interim consolidated balance sheets. See Note 15 — "Off-Balance Sheet Arrangements, Guarantees and Other Commitments" of the "Notes to Interim Consolidated Financial Statements (unaudited)" under Part I, Item 1 of this report for additional disclosures related to our commitments to extend credit.

8. Leases

We have operating leases for our corporate offices and certain equipment utilized at those properties. We are obligated under a number of noncancelable operating leases for premises and equipment that expire at various dates, through 2030, and in most instances, include options to renew or extend at market rates and terms. Such leases may provide for periodic adjustments of rent during the term of the lease based on changes in various economic indicators.

At the inception of the lease, the lease is evaluated to determine whether the lease will be accounted for as an operating or a finance lease. There were no significant assumptions or judgments required upon applying the new lease standard. Operating lease right-of-use assets and operating lease liabilities are included in our consolidated balance sheets. We have no leases that meet the definition of a finance lease under ASC 842 and our lessor accounting treatment for subleases is not material.

Total recorded balances for the lease assets and liabilities are as follows:

(Dollars in thousands)	June 30, 2020	December 31, 2019
Assets:		
Right-of-use assets - operating leases	$ 215,319	$ 197,365
Liabilities:		
Lease liabilities - operating leases	239,357	218,847

The components of our lease cost and supplemental cash flow information related to leases for the three and six months ended June 30, 2020 and 2019 were as follows:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Operating lease cost	$ 11,605	$ 9,462	$ 22,969	$ 18,980
Short-term lease cost	420	582	759	845
Variable lease cost	1,198	933	1,791	1,779
Less: sublease income	(155)	(1,115)	(1,287)	(2,223)
Total lease cost, net	$ 13,068	$ 9,862	$ 24,232	$ 19,381
Supplemental cash flows information:				
Cash paid for amounts included in the measurement of lease liabilities:				
Cash paid for operating leases	$ 12,130	10,884	$ 24,351	$ 21,238
Noncash items during the period:				
Lease obligations in exchange for obtaining Right-of-use assets				
Operating leases	$ 18,850	—	$ 40,463	$ —

The table below presents additional information related to the Company's leases as of June 30, 2020 and December 31, 2019:

	June 30, 2020	December 31, 2019
Weighted-average remaining term (in years) - operating leases	6.00	6.29
Weighted-average discount rate - operating leases (1)	2.64%	2.92%

(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 ASC 842. 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 June 30, 2020:

Years ended December 31, (Dollars in thousands)	Operating Leases
2020 (excluding the six months ended June 30, 2020)	$ 24,477
2021	48,887
2022	43,698
2023	42,602
2024	36,648
2025 and thereafter	63,684
Total future lease payments (1)	$ 259,996
Less: imputed interest	(20,639)
Total lease liabilities	$ 239,357

(1) As of June 30, 2020, we have additional leases that have not yet commenced. We estimate that we will record additional lease liabilities of $18.5 million upon commencement. These leases will commence in 2020 with lease terms of two years to ten years.

9. Goodwill and Other Intangible Assets

Goodwill

Goodwill at both June 30, 2020 and December 31, 2019 was $137.8 million, which was a result of revenue generating synergies expected from our acquisition of SVB Leerink in 2019. Due to the economic uncertainty caused by COVID-19, we conducted an evaluation in the first quarter of 2020 and determined that it was more likely than not that the fair value of SVB Leerink was not less than its carrying amount; therefore, no impairment was recognized on goodwill as of March 31, 2020. We determined that an evaluation was not necessary for the second quarter of 2020 as a result of the strong performance of SVB Leerink for the three months ended June 30, 2020. All reported goodwill amounts have been allocated to the SVB Leerink reporting segment and are expected to be deductible for tax purposes. Refer to Note 14 — “Segment Reporting” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 of this report for additional information.

Other Intangible Assets

The components of net other intangible assets related to the acquisition of SVB Leerink were as follows:

	June 30, 2020			December 31, 2019		
(Dollars in thousands)	Gross Amount	Accumulated Amortization	Net Carrying Amount	Gross Amount	Accumulated Amortization	Net Carrying Amount
Other intangible assets:						
Customer relationships	$ 42,000	$ 5,727	$ 36,273	$ 42,000	$ 3,818	$ 38,182
Other	18,900	8,447	10,453	18,900	7,665	11,235
Total other intangible assets	$ 60,900	$ 14,174	$ 46,726	$ 60,900	$ 11,483	$ 49,417

For the six months ended June 30, 2020, we recorded amortization expense of $2.7 million. 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 June 30, 2020:

Years ended December 31, (Dollars in thousands)	Other Intangible Assets
2020 (excluding the six months ended June 30, 2020)	$ 2,691
2021	4,732
2022	4,732
2023	4,732
2024	4,732
2025 and thereafter	25,107
Total future amortization expense	$ 46,726

10. Short-Term Borrowings and Long-Term Debt

The following table represents outstanding short-term borrowings and long-term debt at June 30, 2020 and December 31, 2019:

(Dollars in thousands)	Maturity	Principal value at June 30, 2020	Carrying Value	
			June 30, 2020	December 31, 2019
Short-term borrowings:				
Other short-term borrowings	(1)	$ 50,924	50,924	17,430
Total short-term borrowings			$ 50,924	$ 17,430
Long-term debt:				
3.50% Senior Notes	January 29, 2025	$ 350,000	$ 348,166	$ 347,987
3.125% Senior Notes	June 5, 2030	500,000	495,054	—
Total long-term debt			$ 843,220	$ 347,987

(1) Represents cash collateral received from certain counterparties in relation to market value exposures of derivative contracts in our favor.

Interest expense related to short-term borrowings and long-term debt was $4.9 million and $10.8 million for the three and six months ended June 30, 2020 and $9.2 million and $19.4 million for the three and six months ended June 30, 2019. The weighted average interest rate associated with our short-term borrowings was 0.08 percent as of June 30, 2020 and 1.55 percent as of as of December 31, 2019.

Short-term Borrowings

We have certain facilities in place to enable us to access short-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 June 30, 2020, collateral pledged to the FHLB of San Francisco was comprised primarily of fixed income investment securities and loans and had a carrying value of $6.5 billion, of which $5.6 billion was available to support additional borrowings. As of June 30, 2020, collateral pledged to the discount window at the FRB was comprised of fixed income investment securities and had a carrying value of $0.9 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 $1.9 billion at June 30, 2020. Our total unused and available borrowing capacity under our master repurchase agreements with various financial institutions totaled $3.3 billion at June 30, 2020.

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 $495.4 million after deducting underwriting discounts and commissions and issuance costs. The balance of our 3.125% Senior Notes at June 30, 2020 was $495.0 million, which is reflective of a $0.4 million discount.

11. 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 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, *Derivatives and Hedging* ("ASC 815"), and record them in other assets and other liabilities. For qualifying cash flow hedges, changes in the

fair value of the derivative are recorded in accumulated other comprehensive income 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 to ensure 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 accumulated other comprehensive income 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 $227.5 million were terminated. As of June 30, 2020, the total unrealized gains on terminated cash flow hedges remaining in AOCI is $211.1 million, $152.6 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 five years.

Currency Exchange Risk

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. We do not designate any foreign exchange forward contracts as derivative instruments that qualify for hedge accounting. 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 other assets and loss positions in other liabilities, while net changes in fair value are recorded in the line item “other” as part of noninterest income, a component of consolidated net income.

Other Derivative Instruments

Also included in our derivative instruments are equity warrant assets and client forward and option contracts, and client interest rate contracts. For further description of these other derivative instruments, refer to Note 2 — “Summary of Significant Accounting Policies" under Part II, Item 8 of our 2019 Form 10-K.

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 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 June 30, 2020 and December 31, 2019 were as follows:

	June 30, 2020			December 31, 2019		
		Fair Value			Fair Value	
(Dollars in thousands)	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	$ —	$ —	$ —	$ 1,915,000	$ 22,676	$ —
Interest rate swaps	—	—	—	3,085,000	—	25,623
Derivatives not designated as hedging instruments:						
Currency exchange risks:						
Foreign exchange forwards	308,975	—	10,471	300,250	—	2,154
Other derivative instruments:						
Equity warrant assets	249,399	171,082	—	225,893	165,473	—
Client foreign exchange forwards	6,937,993	179,166	—	4,661,517	114,546	—
Client foreign exchange forwards	6,339,390	—	139,140	4,326,059	—	94,745
Client foreign currency options	155,412	2,927	—	154,985	1,308	—
Client foreign currency options	155,412	—	2,927	154,985	—	1,308
Client interest rate derivatives	870,885	87,255	—	1,275,190	28,811	—
Client interest rate derivatives (2)	977,084	—	28,676	1,372,914	—	14,154
Total derivatives not designated as hedging instruments		440,430	181,214		310,138	112,361
Total derivatives		$ 440,430	$ 181,214		$ 332,814	$ 137,984

(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 $65.1 million and $17.4 million of derivative liabilities at June 30, 2020 and December 31, 2019, respectively, reflecting variation margin treated as settlement of the related derivative fair values for legal and accounting purposes as required by central clearing houses.

A summary of our derivative activity and the related impact on our consolidated statements of income for the three and six months ended June 30, 2020 and 2019 is as follows:

		Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	**Statement of income location**	**2020**	**2019**	**2020**	**2019**
Derivatives designated as hedging instruments:					
Interest rate risks:					
Amounts reclassified from accumulated other comprehensive income into income	Interest income - loans	$ 15,831	$ (508)	$ 17,920	$ (511)
Derivatives not designated as hedging instruments:					
Currency exchange risks:					
Gains on revaluations of internal foreign currency instruments, net	Other noninterest income	$ 11,428	$ 2,491	$ 3,053	$ 3,541
Losses on internal foreign exchange forward contracts, net	Other noninterest income	(9,334)	(3,274)	(666)	(3,743)
Net gains (losses) associated with internal currency risk		$ 2,094	$ (783)	$ 2,387	$ (202)
Other derivative instruments:					
Gains (losses) on revaluations of client foreign currency instruments, net	Other noninterest income	$ 4,911	$ 959	$ (3,373)	$ (12,612)
(Losses) gains on client foreign exchange forward contracts, net	Other noninterest income	(6,806)	411	941	13,065
Net (losses) gains associated with client currency risk		$ (1,895)	$ 1,370	$ (2,432)	$ 453
Net gains on equity warrant assets	Gains on equity warrant assets, net	$ 26,506	$ 48,347	$ 39,901	$ 69,652
Net losses on other derivatives	Other noninterest income	$ (273)	$ (1,131)	$ (4,618)	$ (1,496)

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 June 30, 2020 and December 31, 2019:

(Dollars in thousands)	Gross Amounts of Recognized Assets	Gross Amounts offset in the Statement of Financial Position	Net Amounts of Assets Presented in the Statement of Financial Position	Gross Amounts Not Offset in the Statement of Financial Position but Subject to Master Netting Arrangements		Net Amount
				Financial Instruments	Cash Collateral Received (1)	
June 30, 2020						
Derivative assets:						
Interest rate swaps	$ —	$ —	$ —	$ —	$ —	$ —
Foreign exchange forwards	179,166	—	179,166	(76,065)	(49,755)	53,346
Foreign currency options	2,927	—	2,927	(1,055)	(1,169)	703
Client interest rate derivatives	87,255	—	87,255	(87,255)	—	—
Total derivative assets	269,348	—	269,348	(164,375)	(50,924)	54,049
Reverse repurchase, securities borrowing, and similar arrangements	317,048	—	317,048	(317,048)	—	—
Total	$ 586,396	$ —	$ 586,396	$ (481,423)	$ (50,924)	$ 54,049
December 31, 2019						
Derivative assets:						
Interest rate swaps	$ 22,676	$ —	$ 22,676	$ (22,598)	$ —	$ 78
Foreign exchange forwards	114,546	—	114,546	(36,855)	(17,095)	60,596
Foreign currency options	1,308	—	1,308	(848)	(335)	125
Client interest rate derivatives	28,811	—	28,811	(28,811)	—	—
Total derivative assets	167,341	—	167,341	(89,112)	(17,430)	60,799
Reverse repurchase, securities borrowing, and similar arrangements	289,340	—	289,340	(289,340)	—	—
Total	$ 456,681	$ —	$ 456,681	$ (378,452)	$ (17,430)	$ 60,799

(1) Cash collateral received from our counterparties in relation to market value exposures of derivative contracts in our favor is recorded as a component of “short-term borrowings” on our consolidated balance sheets.

The following table summarizes our liabilities subject to enforceable master netting arrangements as of June 30, 2020 and December 31, 2019:

(Dollars in thousands)	Gross Amounts of Recognized Liabilities	Gross Amounts offset in the Statement of Financial Position	Net Amounts of Liabilities Presented in the Statement of Financial Position	Gross Amounts Not Offset in the Statement of Financial Position but Subject to Master Netting Arrangements		Net Amount
				Financial Instruments	Cash Collateral Pledged (1)	
June 30, 2020						
Derivative liabilities:						
Interest rate swaps	$ —	$ —	$ —	$ —	$ —	$ —
Foreign exchange forwards	149,611	—	149,611	(54,867)	(14,031)	80,713
Foreign currency options	2,927	—	2,927	(987)	—	1,940
Client interest rate derivatives	28,676	—	28,676	(6,566)	(21,376)	734
Total derivative liabilities	181,214	—	181,214	(62,420)	(35,407)	83,387
Repurchase, securities lending, and similar arrangements	—	—	—	—	—	—
Total	$ 181,214	$ —	$ 181,214	$ (62,420)	$ (35,407)	$ 83,387
December 31, 2019						
Derivative liabilities:						
Interest rate swaps	25,623	—	25,623	(22,676)	(2,947)	—
Foreign exchange forwards	96,899	—	96,899	(33,314)	(22,030)	41,555
Foreign currency options	1,308	—	1,308	(531)	—	777
Client interest rate derivatives	14,154	—	14,154	—	(13,936)	218
Total derivative liabilities	137,984	—	137,984	(56,521)	(38,913)	42,550
Repurchase, securities lending, and similar arrangements	—	—	—	—	—	—
Total	$ 137,984	$ —	$ 137,984	$ (56,521)	$ (38,913)	$ 42,550

(1) Cash collateral pledged to our counterparties in relation to market value exposures of derivative contracts in a liability position and repurchase agreements are recorded as a component of “cash and cash equivalents” on our consolidated balance sheets.

12. Noninterest Income

All of the Company's revenue from contracts with customers within the scope of ASC 606 is recognized within noninterest income. Included below is a summary of noninterest income for the three and six months ended June 30, 2020 and 2019:

(Dollars in thousands)	Three months ended June 30,		Six months ended June 30,	
	2020	2019	2020	2019
Noninterest income:				
Gains on investment securities, net	$ 34,868	$ 47,698	$ 80,923	$ 76,726
Gains on equity warrant assets, net	26,506	48,347	39,901	69,652
Client investment fees	31,885	45,744	75,278	90,226
Foreign exchange fees	36,256	38,506	83,761	76,554
Credit card fees	21,288	28,790	49,592	56,273
Deposit service charges	20,511	22,075	45,100	43,014
Lending related fees	11,164	11,213	24,289	25,150
Letters of credit and standby letters of credit fees	11,421	11,009	22,963	20,363
Investment banking revenue	141,503	48,694	188,370	98,489
Commissions	16,918	14,429	32,940	28,537
Other	16,528	17,245	27,665	29,142
Total noninterest income	$ 368,848	$ 333,750	$ 670,782	$ 614,126

Gains on investment securities, net

Net gains 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, our China Joint Venture, debt 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 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 (i.e., 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 noncontrolling interests. Carried interest allocated to others is recorded as a component of net income attributable to noncontrolling interests. 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 available-for-sale 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 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 the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	**2020**	**2019**	**2020**	**2019**
Gains on non-marketable and other equity securities, net	$ 34,868	$ 47,973	$ 19,758	$ 80,631
(Losses) gains on sales of available-for-sale securities, net	—	(275)	61,165	(3,905)
Total gains on investment securities, net	$ 34,868	$ 47,698	$ 80,923	$ 76,726

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 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 the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	**2020**	**2019**	**2020**	**2019**
Equity warrant assets:				
Gains on exercises, net	$ 9,435	$ 40,226	$ 32,730	$ 49,180
Terminations	(439)	(1,045)	(872)	(1,884)
Changes in fair value, net	17,510	9,166	8,043	22,356
Total net gains on equity warrant assets	$ 26,506	$ 48,347	$ 39,901	$ 69,652

Client investment fees

Client investment fees include fees earned from discretionary investment management services for substantially all clients, managing clients' portfolios based on their investment policies, strategies and objectives and investment advisory fees. 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 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 the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	**2020**	**2019**	**2020**	**2019**
Client investment fees by type:				
Sweep money market fees	$ 19,413	$ 26,952	$ 42,462	$ 53,496
Asset management fees (1)	11,596	6,956	20,733	13,628
Repurchase agreement fees	876	11,836	12,083	23,102
Total client investment fees (2)	$ 31,885	$ 45,744	$ 75,278	$ 90,226

(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.

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 are recognized upon the completion of the single performance obligation, the execution of a spot trade in exchange for a fee. In line with customary business practice, the legal right transfers to the client upon execution of a foreign exchange contract on the trade date, and as such, we currently recognize our fees based on the trade date and the transactions are typically settled within two business days.

Forward contract 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 the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Foreign exchange fees by instrument type:				
Spot contract commissions	$ 33,093	$ 34,696	$ 74,027	$ 69,725
Forward contract commissions	3,052	3,778	9,391	6,773
Option premium fees	111	32	343	56
Total foreign exchange fees	$ 36,256	$ 38,506	$ 83,761	$ 76,554

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 the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Credit card fees by instrument type:				
Card interchange fees, net	$ 15,314	$ 22,855	$ 37,089	$ 44,248
Merchant service fees	5,030	4,286	10,057	8,821
Card service fees	944	1,649	2,446	3,204
Total credit card fees	$ 21,288	$ 28,790	$ 49,592	$ 56,273

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, and are presented in the *"Disaggregation of revenue from contracts with customers"* table below.

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 the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	**2020**	**2019**	**2020**	**2019**
Lending related fees by instrument type:				
Unused commitment fees	$ 8,324	$ 7,051	$ 16,730	$ 16,721
Other	2,840	4,162	7,559	8,429
Total lending related fees	$ 11,164	$ 11,213	$ 24,289	$ 25,150

Letters of credit and standby letters of credit fees

Commercial and 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

The Company earns 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 the Company recognizes the applicable management fee as well the underwriting fee, net of consideration payable to customers. The Company recognizes private placement fees 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. The Company has determined that it acts as principal in the majority of these transactions and therefore presents expenses gross within other operating expenses.

A summary of investment banking revenue by instrument type for the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	**2020**	**2019**	**2020**	**2019**
Investment banking revenue:				
Underwriting fees	$ 131,085	$ 42,584	$ 162,375	$ 78,356
Advisory fees	8,922	5,315	24,409	17,588
Private placements and other	1,496	795	1,586	2,545
Total investment banking revenue	$ 141,503	$ 48,694	$ 188,370	$ 98,489

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. Commissions are presented in the *"Disaggregation of revenue from contracts with customers"* table below.

Other

Other noninterest income primarily includes income from fund management fees 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 in advance and are received quarterly. 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.

Other service revenue primarily consists of dividend income on FHLB/FRB stock, correspondent bank rebate income, incentive 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 the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Other noninterest income by instrument type:				
Fund management fees	$ 8,845	$ 7,758	$ 16,753	$ 15,799
Net gains (losses) on revaluation of foreign currency instruments, net of foreign exchange forward contracts (1)	199	587	(45)	251
Other service revenue	7,484	8,900	10,957	13,092
Total other noninterest income	$ 16,528	$ 17,245	$ 27,665	$ 29,142

(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 three and six months ended June 30, 2020 and 2019:

Three months ended June 30, 2020 (Dollars in thousands)	Global Commercial Bank (2)	SVB Private Bank	SVB Capital (2)	SVB Leerink (2)	Other Items	Total
Revenue from contracts with customers:						
Client investment fees	$ 31,308	$ 577	$ —	$ —	$ —	$ 31,885
Spot contract commissions	32,865	98	—	—	130	33,093
Card interchange fees, gross	25,930	5	—	—	291	26,226
Merchant service fees	5,030	—	—	—	—	5,030
Deposit service charges	20,460	13	—	—	38	20,511
Investment banking revenue	—	—	—	141,503	—	141,503
Commissions	—	—	—	16,918	—	16,918
Fund management fees	—	—	7,415	1,430	—	8,845
Correspondent bank rebates	1,371	—	—	—	—	1,371
Total revenue from contracts with customers	$ 116,964	$ 693	$ 7,415	$ 159,851	$ 459	$ 285,382
Revenues outside the scope of ASC 606 (1)	16,510	(23)	14,035	3,966	48,978	83,466
Total noninterest income	$ 133,474	$ 670	$ 21,450	$ 163,817	$ 49,437	$ 368,848

(1) Amounts are accounted for under separate guidance than ASC 606.

(2) Global Commercial Bank's, SVB Capital's and SVB Leerink's components of noninterest income are shown net of noncontrolling interests. Noncontrolling interest is included within "Other Items."

Three months ended June 30, 2019 (Dollars in thousands)	Global Commercial Bank (2)	SVB Private Bank	SVB Capital (2)	SVB Leerink (2)	Other Items	Total
Revenue from contracts with customers:						
Client investment fees (3)	$ 45,278	$ 466	$ —	$ —	$ —	$ 45,744
Spot contract commissions	34,428	165	—	—	103	34,696
Card interchange fees, gross	41,887	—	—	—	190	42,077
Merchant service fees	4,286	—	—	—	—	4,286
Deposit service charges	21,750	33	—	—	292	22,075
Investment banking revenue	—	—	—	48,694	—	48,694
Commissions	—	—	—	14,429	—	14,429
Fund management fees	—	—	6,328	1,430	—	7,758
Correspondent bank rebates	1,612	—	—	—	—	1,612
Total revenue from contracts with customers	$ 149,241	$ 664	$ 6,328	$ 64,553	$ 585	$ 221,371
Revenues outside the scope of ASC 606 (1)	8,364	22	33,731	2,447	67,815	112,379
Total noninterest income	$ 157,605	$ 686	$ 40,059	$ 67,000	$ 68,400	$ 333,750

(1) Amounts are accounted for under separate guidance than ASC 606.
(2) Global Commercial Bank's and SVB Capital's components of noninterest income are shown net of noncontrolling interests. Noncontrolling interest is included within "Other Items."
(3) For the three months ended June 30, 2019, the amount of client investment fees previously reported as "Other Items" has been correctly allocated to the reportable segment "Global Commercial Bank" to properly reflect the source of such revenue. The correction of this immaterial error had no impact on the "Total" amount of client investment fees.

Six months ended June 30, 2020 (Dollars in thousands)	Global Commercial Bank (2)	SVB Private Bank	SVB Capital (2)	SVB Leerink (2)	Other Items	Total
Revenue from contracts with customers:						
Client investment fees	$ 74,044	$ 1,234	$ —	$ —	$ —	$ 75,278
Spot contract commissions	73,540	259	—	—	228	74,027
Card interchange fees, gross	61,654	12	—	—	857	62,523
Merchant service fees	10,057	—	—	—	—	10,057
Deposit service charges	44,698	40	—	—	362	45,100
Investment banking revenue	—	—	—	188,370	—	188,370
Commissions	—	—	—	32,940	—	32,940
Fund management fees	—	—	13,893	2,860	—	16,753
Correspondent bank rebates	2,774	—	—	—	—	2,774
Total revenue from contracts with customers	$ 266,767	$ 1,545	$ 13,893	$ 224,170	$ 1,447	$ 507,822
Revenues outside the scope of ASC 606 (1)	33,541	25	12,475	2,324	114,595	162,960
Total noninterest income	$ 300,308	$ 1,570	$ 26,368	$ 226,494	$ 116,042	$ 670,782

(1) Amounts are accounted for under separate guidance than ASC 606.
(2) Global Commercial Bank's, SVB Capital's and SVB Leerink's components of noninterest income are shown net of noncontrolling interests. Noncontrolling interest is included within "Other Items."

Six months ended June 30, 2019 (Dollars in thousands)	Global Commercial Bank (2)	SVB Private Bank	SVB Capital (2)	SVB Leerink (2)	Other Items	Total
Revenue from contracts with customers:						
Client investment fees (3)	$ 89,380	$ 846	$ —	$ —	$ —	$ 90,226
Spot contract commissions	69,233	288	—	—	204	69,725
Card interchange fees, gross	80,601	—	—	—	337	80,938
Merchant service fees	8,821	—	—	—	—	8,821
Deposit service charges	42,543	68	—	—	403	43,014
Investment banking revenue	—	—	—	98,489	—	98,489
Commissions	—	—	—	28,537	—	28,537
Fund management fees	—	—	12,987	2,812	—	15,799
Correspondent bank rebates	3,079	—	—	—	—	3,079
Total revenue from contracts with customers	$ 293,657	$ 1,202	$ 12,987	$ 129,838	$ 944	$ 438,628
Revenues outside the scope of ASC 606 (1)	16,808	(6)	51,917	5,279	101,500	175,498
Total noninterest income	$ 310,465	$ 1,196	$ 64,904	$ 135,117	$ 102,444	$ 614,126

(1) Amounts are accounted for under separate guidance than ASC 606.
(2) Global Commercial Bank's, SVB Capital's and SVB Leerink's components of noninterest income are shown net of noncontrolling interests. Noncontrolling interest is included within "Other Items."
(3) For the six months ended June 30, 2019, the amount of client investment fees previously reported as "Other Items" has been correctly allocated to the reportable segment "Global Commercial Bank" to properly reflect the source of such revenue. The correction of this immaterial error had no impact on the "Total" amount of client investment fees.

The timing of revenue recognition may differ from the timing of cash settlements or invoicing to customers. We record a receivable when revenue is recognized prior to invoicing, and unearned revenue when revenue is recognized subsequent to receipt of consideration. These assets and liabilities are reported on the consolidated balance sheets on a contract-by-contract basis at the end of each reporting period. During the three and six months ended June 30, 2020 and 2019, changes in our contract assets, contract liabilities and receivables were not material. Additionally, revenues recognized during the three and six months ended June 30, 2020 and 2019 that were included in the corresponding contract liability balance at the beginning of the periods were not material.

13. Other Noninterest Expense

A summary of other noninterest expense for the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Lending and other client related processing costs	$ 6,803	$ 8,763	$ 15,961	$ 13,940
Correspondent bank fees	3,833	3,569	7,819	7,313
Investment banking activities	7,768	3,869	10,798	8,054
Trade order execution costs	2,614	2,828	5,359	5,344
Data processing services	3,507	2,659	6,961	5,558
Telephone	1,889	2,422	4,116	5,163
Dues and publications	910	860	2,040	2,384
Postage and supplies	723	678	1,579	1,448
Other	11,600	11,769	25,717	21,749
Total other noninterest expense	$ 39,647	$ 37,417	$ 80,350	$ 70,953

14. Segment Reporting

We have four reportable segments for management reporting purposes: Global Commercial Bank, SVB Private Bank, SVB Capital and SVB Leerink. The results of our operating segments are based on our internal management reporting process.

Our Global Commercial Bank and SVB Private Bank segments' primary source of revenue is from net interest income, which is primarily the difference between interest earned on loans, net of funds transfer pricing ("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 or the provision for unfunded credit commitments (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:

- **Global Commercial Bank** is comprised of results from the following:
  - Our **Commercial Bank** products and services are provided by the Bank and its subsidiaries to commercial clients in the technology, life science/healthcare and private equity/venture capital industries. The Bank provides solutions to the financial needs of commercial clients through credit, treasury management, foreign exchange, trade finance, and other services. We broadly serve clients within the U.S., as well as non-U.S. clients in key international innovation markets. 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 **Global Funds Banking (formerly Private Equity) Division** provides banking products and services primarily to our private equity and venture capital clients.
  - **SVB Wine** provides banking products and services to our premium wine industry clients, including vineyard development loans.
  - **Debt Fund Investments** is comprised of our investments in certain debt funds in which we are a strategic investor.
- **SVB Private Bank** is the private banking division of the Bank, which 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. We offer a customized suite of private banking services, including mortgages, home equity lines of credit, restricted stock purchase loans, capital call lines of credit and other secured and unsecured lending products, as well as cash and wealth management services. In addition, we provide real estate secured loans to eligible employees through our Employee Home Ownership Program.
- **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 funds of funds that invest in other venture capital funds. SVB Capital generates income for the Company primarily from investment returns (including carried interest allocations) and management fees.
- **SVB Leerink** is an investment bank specializing in the equity and convertible capital markets, mergers and acquisitions, equity research and sales and trading for growth and innovation-minded healthcare and life science companies and operates as a wholly-owned subsidiary of SVB Financial. SVB Leerink provides investment banking services across all subsectors of healthcare including: biotechnology, pharmaceuticals, medical devices, diagnostic and life science tools, healthcare services and digital health. SVB Leerink focuses on two primary lines of business: (i) investment banking focused on providing companies with capital-raising services, financial advice on mergers and acquisitions, sales and trading services and equity research, and (ii) sponsorship of private investment funds.

The summary financial results of our operating segments are presented along with a reconciliation to our consolidated interim results.

Our segment information for the three and six months ended June 30, 2020 and 2019 is as follows:

(Dollars in thousands)	Global Commercial Bank (1)	SVB Private Bank	SVB Capital (1)	SVB Leerink (1)	Other Items (2)	Total
Three months ended June 30, 2020						
Net interest income (loss)	$ 484,969	$ 18,644	$ 5	$ (3)	$ 9,312	$ 512,927
Provision for credit losses	(43,456)	(4,585)	—	—	(18,440)	(66,481)
Noninterest income (7)	133,474	670	21,450	163,817	49,437	368,848
Noninterest expense (3)	(241,343)	(10,164)	(8,256)	(108,650)	(111,223)	(479,636)
Income (loss) before income tax expense (4)	$ 333,644	$ 4,565	$ 13,199	$ 55,164	$ (70,914)	$ 335,658
Total average loans, amortized cost	$ 30,472,414	$ 4,035,940	$ —	$ —	$ 2,003,805	$ 36,512,159
Total average assets (5) (6) (8)	67,936,486	4,071,648	430,272	454,603	5,538,993	78,432,002
Total average deposits	65,090,982	2,119,983	—	—	705,416	67,916,381
Three months ended June 30, 2019						
Net interest income	$ 461,752	$ 12,277	$ 6	$ 242	$ 55,126	$ 529,403
Provision for credit losses	(18,295)	(853)	—	—	(4,798)	(23,946)
Noninterest income (7)	157,605	686	40,059	67,000	68,400	333,750
Noninterest expense (3)	(206,902)	(9,526)	(7,883)	(61,935)	(97,276)	(383,522)
Income before income tax expense (4)	$ 394,160	$ 2,584	$ 32,182	$ 5,307	$ 21,452	$ 455,685
Total average loans, amortized cost	$ 25,724,704	$ 3,217,597	$ —	$ —	$ 464,319	$ 29,406,620
Total average assets (5) (6) (8)	53,965,699	3,247,557	373,167	410,279	2,703,784	60,700,486
Total average deposits	51,126,806	1,394,905	—	—	440,497	52,962,208
Six months ended June 30, 2020						
Net interest income	$ 948,805	$ 33,808	$ 26	$ 198	$ 54,227	$ 1,037,064
Provision for credit losses	(237,867)	(59,075)	—	—	(13,019)	(309,961)
Noninterest income (7)	300,308	1,570	26,368	226,494	116,042	670,782
Noninterest expense (3)	(466,198)	(20,254)	(16,842)	(170,687)	(205,240)	(879,221)
Income (loss) before income tax expense (4)	$ 545,048	$ (43,951)	$ 9,552	$ 56,005	$ (47,990)	$ 518,664
Total average loans, net of unearned income	$ 29,804,949	$ 3,946,709	$ —	$ —	$ 1,334,786	$ 35,086,444
Total average assets (5) (6) (8)	64,870,536	3,982,024	438,737	469,126	5,659,162	75,419,585
Total average deposits	62,153,426	2,021,323	—	—	687,557	64,862,306
Six months ended June 30, 2019						
Net interest income	$ 907,628	$ 24,258	$ 12	$ 684	$ 109,707	$ 1,042,289
(Provision for) reduction of credit losses	(45,100)	131	—	—	(7,528)	(52,497)
Noninterest income (7)	310,465	1,196	64,904	135,117	102,444	614,126
Noninterest expense (3)	(404,147)	(18,378)	(13,665)	(122,475)	(190,521)	(749,186)
Income before income tax expense (4)	$ 768,846	$ 7,207	$ 51,251	$ 13,326	$ 14,102	$ 854,732
Total average loans, net of unearned income	$ 25,264,010	$ 3,152,104	$ —	$ —	$ 484,046	$ 28,900,160
Total average assets (5) (6) (8)	52,068,609	3,179,064	375,934	355,609	3,144,018	59,123,234
Total average deposits	49,371,589	1,442,803	—	—	532,788	51,347,180

(1) Global Commercial Bank's, SVB Capital's and SVB Leerink's components of net interest income, noninterest income, noninterest expense and total average assets are shown net of noncontrolling interests for all periods presented. Noncontrolling interest 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. Net interest income 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) The Global Commercial Bank segment includes direct depreciation and amortization of $5.8 million and $4.8 million for the three months ended June 30, 2020 and 2019, respectively, and $11.3 million and $9.6 million for the six months ended June 30, 2020 and 2019.
(4) 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.
(5) 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.
(6) Included in the total average assets for SVB Leerink is goodwill of $137.8 million for the three and six months ended June 30, 2020 and 2019.
(7) For the three and six months ended June 30, 2019, amounts of client investment fees included in the line item "Noninterest Income" previously reported as "Other Items" have been correctly allocated to our reportable segment "Global Commercial Bank" to properly reflect the source of such revenue. The correction of this immaterial error had no impact on the "Total" amount of noninterest income.
(8) For the three and six months ended June 30, 2019, amounts for average assets previously reported as "Other Items" have been correctly allocated to the reportable segments "Global Commercial Bank" and "Private Bank" to properly reflect the greater of total average assets or the sum of total average liabilities and total average stockholders' equity for "Global Commercial Bank" and "Private Bank." The correction of this immaterial error had no impact on the "Total" amount of average assets.

15. 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 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.

Commitments to Extend Credit

The following table summarizes information related to our commitments to extend credit at June 30, 2020 and December 31, 2019:

(Dollars in thousands)	June 30, 2020	December 31, 2019
Loan commitments available for funding: (1)		
Fixed interest rate commitments	$ 2,298,264	$ 2,434,042
Variable interest rate commitments	22,895,069	19,309,317
Total loan commitments available for funding	25,193,333	21,743,359
Commercial and standby letters of credit (2)	2,933,896	2,778,561
Total unfunded credit commitments	$ 28,127,229	$ 24,521,920
Commitments unavailable for funding (3)	$ 2,412,910	$ 3,051,075
Allowance for unfunded credit commitments (4)	99,294	67,656

(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 commercial and standby letters of credit.
(3) Represents commitments which are currently unavailable for funding due to clients failing to meet all collateral, compliance and financial covenants under loan commitment agreements.
(4) Our allowance for credit losses for unfunded credit commitments includes an allowance for both our unfunded loan commitments and our letters of credit.

Commercial and Standby Letters of Credit

The table below summarizes our commercial and standby letters of credit at June 30, 2020. 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 thousands)	Expires In One Year or Less	Expires After One Year	Total Amount Outstanding	Maximum Amount of Future Payments
Financial standby letters of credit	$ 2,723,597	$ 80,267	$ 2,803,864	$ 2,803,864
Performance standby letters of credit	109,279	17,787	127,066	127,066
Commercial letters of credit	2,870	96	2,966	2,966
Total	$ 2,835,746	$ 98,150	$ 2,933,896	$ 2,933,896

Deferred fees related to financial and performance standby letters of credit were $16.1 million at June 30, 2020 and $17.2 million at December 31, 2019. At June 30, 2020, collateral in the form of cash of $1.6 billion was available to us to reimburse losses, if any, under financial and performance standby letters of credit.

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 June 30, 2020:

(Dollars in thousands)	SVBFG Capital Commitments	SVBFG Unfunded Commitments	SVBFG Ownership of each Fund (3)
CP I, LP	$ 6,000	$ 270	10.7%
CP II, LP (1)	1,200	162	5.1
Capital Preferred Return Fund, LP	12,688	—	20.0
Growth Partners, LP	24,670	1,340	33.0
Strategic Investors Fund, LP	15,300	688	12.6
Strategic Investors Fund II, LP	15,000	1,050	8.6
Strategic Investors Fund III, LP	15,000	1,275	5.9
Strategic Investors Fund IV, LP	12,239	2,235	5.0
Strategic Investors Fund V funds	515	131	Various
Other venture capital and private equity fund investments (equity method accounting)	21,789	5,514	Various
Debt funds (equity method accounting)	58,493	—	Various
Other fund investments (2)	281,508	5,951	Various
Total	$ 464,402	$ 18,616	

(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 197 funds (primarily venture capital funds) where our ownership interest is generally less than five percent of the voting interests of each such fund.

(3) We are subject to the Volcker Rule, which restricts investments in “covered funds”. Under revised regulations that will become effective on October 1, 2020, venture capital and credit funds that meet certain criteria will no longer be considered covered funds. We believe that, as a result of these changes, we will not be required to sell or otherwise conform certain of our fund investments. See the “Volcker Rule” section under Part I, Item 2 of this report for additional details.

The following table details the amounts of remaining unfunded commitments to venture capital and private equity funds by our consolidated managed funds of funds (including our interest and the noncontrolling interests) at June 30, 2020:

(Dollars in thousands)	Unfunded Commitments
Strategic Investors Fund, LP	$ 376
Capital Preferred Return Fund, LP	1,517
Growth Partners, LP	2,504
Total	$ 4,397

16. Income Taxes

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. We have identified the U.S. federal and California state jurisdictions as major tax filings. All U.S. federal and California state tax returns remain open to full examination for 2016 and subsequent tax years.

At June 30, 2020, our unrecognized tax benefit was $13.6 million, the recognition of which would reduce our income tax expense by $10.7 million. We do not expect that our unrecognized tax benefit 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 three and six months ended June 30, 2020.

17. Fair Value of Financial Instruments

Fair Value Measurements

Our available-for-sale 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 valuation of assets and liabilities measured at fair value in preparing our interim consolidated financial statements.

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. Valuations for the available-for-sale securities are provided by independent pricing service providers who have experience in valuing these securities and by comparison to and/or average of quoted market prices obtained from independent brokers. We perform a monthly analysis on the values received from third parties to ensure 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. We ensure prices received from independent brokers represent a reasonable estimate of the fair value through the use of observable market inputs including comparable trades, yield curve, spreads and, when available, market indices. As a result of this analysis, if the Company determines that there is a more appropriate fair value based upon the available market data, the price received from the third party is adjusted accordingly. Below is a summary of the significant inputs used for each class of Level 2 assets and liabilities:

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 market interest rates, generally U.S. Treasury securities.

Agency-issued mortgage-backed securities: Agency-issued mortgage-backed securities 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 market interest rates taking into consideration estimated loan prepayment speeds.

Agency-issued collateralized mortgage obligations: Agency-issued collateralized mortgage obligations 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 commercial mortgage-backed securities: Fair value measurements of these securities are based on spreads to benchmark market 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.

Foreign exchange forward and option contract assets and liabilities: Fair value measurements of these 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: Fair value measurements of interest rate derivatives and interest rate swaps 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.

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 and/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. Significant changes to any one of these inputs in isolation could result in a significant change in the fair value measurement; however, we generally consider all factors available through ongoing communication with the portfolio companies and venture capital fund managers to determine whether there are changes to the portfolio company or the environment that indicate a change in the fair value measurement.

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. As sale restrictions are lifted, discounts are adjusted downward to zero once all restrictions expire or are removed.

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.

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 June 30, 2020:

(Dollars in thousands)	Level 1	Level 2	Level 3	Balance at June 30, 2020
Assets:				
Available-for-sale securities:				
U.S. Treasury securities	$ 4,535,235	$ —	$ —	$ 4,535,235
U.S. agency debentures	—	102,659	—	102,659
Foreign government debt securities	22,525	—	—	22,525
Residential mortgage-backed securities:				
Agency-issued mortgage-backed securities	—	7,655,556	—	7,655,556
Agency-issued collateralized mortgage obligations—fixed rate	—	2,979,540	—	2,979,540
Agency-issued commercial mortgage-backed securities	—	3,156,398	—	3,156,398
Total available-for-sale securities	4,557,760	13,894,153	—	18,451,913
Non-marketable and other equity securities (fair value accounting):				
Non-marketable securities:				
Venture capital and private equity fund investments measured at net asset value	—	—	—	213,201
Venture capital and private equity fund investments not measured at net asset value (1)	—	—	134	134
Other equity securities in public companies	25,233	20,055	—	45,288
Total non-marketable and other equity securities (fair value accounting)	25,233	20,055	134	258,623
Other assets:				
Foreign exchange forward and option contracts	—	182,093	—	182,093
Equity warrant assets	—	5,857	165,225	171,082
Client interest rate derivatives	—	87,255	—	87,255
Total assets	$ 4,582,993	$ 14,189,413	$ 165,359	$ 19,150,966
Liabilities:				
Foreign exchange forward and option contracts	$ —	$ 152,538	$ —	$ 152,538
Client interest rate derivatives	—	28,676	—	28,676
Total liabilities	$ —	$ 181,214	$ —	$ 181,214

(1) Included in Level 3 assets is $120 thousand attributable to noncontrolling interests calculated based on the ownership percentages of the noncontrolling interests.

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, 2019:

(Dollars in thousands)	Level 1	Level 2	Level 3	Balance at December 31, 2019
Assets:				
Available-for-sale securities:				
U.S. Treasury securities	$ 6,894,010	$ —	$ —	$ 6,894,010
U.S. agency debentures	—	99,547	—	99,547
Foreign government debt securities	9,038	—	—	9,038
Residential mortgage-backed securities:				
Agency-issued mortgage-backed securities	—	4,148,791	—	4,148,791
Agency-issued collateralized mortgage obligations—fixed rate	—	1,538,343	—	1,538,343
Agency-issued commercial mortgage-backed securities	—	1,325,190	—	1,325,190
Total available-for-sale securities	6,903,048	7,111,871	—	14,014,919
Non-marketable and other equity securities (fair value accounting):				
Non-marketable securities:				
Venture capital and private equity fund investments measured at net asset value	—	—	—	265,263
Venture capital and private equity fund investments not measured at net asset value (1)	—	—	134	134
Other equity securities in public companies	17,290	41,910	—	59,200
Total non-marketable and other equity securities (fair value accounting)	17,290	41,910	134	324,597
Other assets:				
Foreign exchange forward and option contracts	—	115,854	—	115,854
Equity warrant assets	—	4,435	161,038	165,473
Interest rate swaps	—	22,676	—	22,676
Client interest rate derivatives	—	28,811	—	28,811
Total assets	$ 6,920,338	$ 7,325,557	$ 161,172	$ 14,672,330
Liabilities:				
Foreign exchange forward and option contracts	$ —	$ 98,207	$ —	$ 98,207
Interest rate swaps	—	25,623	—	25,623
Client interest rate derivatives	—	14,154	—	14,154
Total liabilities	$ —	$ 137,984	$ —	$ 137,984

(1) Included in Level 3 assets is $120 thousand attributable to noncontrolling interests calculated based on the ownership percentages of the noncontrolling interests.

The following table presents additional information about Level 3 assets measured at fair value on a recurring basis for the three and six months ended June 30, 2020 and 2019:

(Dollars in thousands)	Beginning Balance	Total Net Gains (Losses) Included in Net Income	Purchases	Sales/Exits	Issuances	Distributions and Other Settlements	Transfers Out of Level 3	Ending Balance
Three months ended June 30, 2020								
Non-marketable and other equity securities (fair value accounting):								
Venture capital and private equity fund investments not measured at net asset value (1)	$ 134	$ —	$ —	$ —	$ —	$ —	$ —	$ 134
Other assets:								
Equity warrant assets (2)	149,858	24,086	—	(15,316)	6,770	—	(173)	165,225
Total assets	$ 149,992	$ 24,086	$ —	$ (15,316)	$ 6,770	$ —	$ (173)	$ 165,359
Three months ended June 30, 2019								
Non-marketable and other equity securities (fair value accounting):								
Venture capital and private equity fund investments not measured at net asset value (1)	$ 1,035	$ 2	$ —	$ (596)	$ —	$ —	$ —	$ 441
Other assets:								
Equity warrant assets (2)	156,749	46,645	—	(55,568)	3,041	—	(3,097)	147,770
Total assets	$ 157,784	$ 46,647	$ —	$ (56,164)	$ 3,041	$ —	$ (3,097)	$ 148,211
Six months ended June 30, 2020								
Non-marketable and other equity securities (fair value accounting):								
Venture capital and private equity fund investments not measured at net asset value (1)	$ 134	$ 5	$ —	$ (5)	$ —	$ —	$ —	$ 134
Other assets:								
Equity warrant assets (2)	161,038	38,687	—	(45,350)	11,289	—	(439)	165,225
Total assets	$ 161,172	$ 38,692	$ —	$ (45,355)	$ 11,289	$ —	$ (439)	$ 165,359
Six months ended June 30, 2019								
Non-marketable and other equity securities (fair value accounting):								
Venture capital and private equity fund investments not measured at net asset value (1)	$ 1,079	$ (45)	$ —	$ (596)	$ —	$ 3	$ —	$ 441
Other assets:								
Equity warrant assets (2)	145,199	65,811	575	(67,873)	7,584	—	(3,526)	147,770
Total assets	$ 146,278	$ 65,766	$ 575	$ (68,469)	$ 7,584	$ 3	$ (3,526)	$ 148,211

(1) Realized and unrealized gains (losses) are recorded in the line item “Gains on investment securities, net," a component of noninterest income.

(2) Realized and unrealized gains (losses) are recorded in the line item “Gains on equity warrant assets, net," a component of noninterest income.

The following table presents the amount of net unrealized gains and losses included in earnings (which is inclusive of noncontrolling interest) attributable to Level 3 assets still held at June 30, 2020 and 2019:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	**2020**	**2019**	**2020**	**2019**
Non-marketable and other equity securities (fair value accounting):				
Venture capital and private equity fund investments not measured at net asset value (1)	$ —	$ 2	$ —	$ (45)
Other assets:				
Equity warrant assets (2)	11,267	4,416	7,122	19,188
Total unrealized (losses) gains, net	$ 11,267	$ 4,418	$ 7,122	$ 19,143
Unrealized losses attributable to noncontrolling interests (1)	$ —	$ (1)	$ —	$ (40)

(1) Unrealized gains (losses) are recorded in the line item "Gains on investment securities, net," a component of noninterest income.
(2) Unrealized gains (losses) are recorded in the line item "Gains on equity warrant assets, net," 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 June 30, 2020 and December 31, 2019. 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 thousands)	**Fair value**	**Valuation Technique**	**Significant Unobservable Inputs**	**Input Range**	**Weighted Average**
June 30, 2020:					
Venture capital and private equity fund investments (fair value accounting)	$ 134	Private company equity pricing	(1)	(1)	(1)
Equity warrant assets (public portfolio)	1,085	Black-Scholes option pricing model	Volatility	56.6%	56.6%
			Risk-Free interest rate	0.7	0.7
			Sales restrictions discount (2)	10.0 - 20.0	14.4
Equity warrant assets (private portfolio)	164,140	Black-Scholes option pricing model	Volatility	23.1% - 56.6%	43.1
			Risk-Free interest rate	0.01 - 0.66	0.2
			Marketability discount (3)	21.8	21.8
			Remaining life assumption (4)	45.0	45.0
December 31, 2019:					
Venture capital and private equity fund investments (fair value accounting)	$ 134	Private company equity pricing	(1)	(1)	(1)
Equity warrant assets (public portfolio)	346	Black-Scholes option pricing model	Volatility	39.2% - 54.8%	50.7%
			Risk-Free interest rate	1.9	1.9
			Sales restrictions discount (2)	10.0 - 20.0	13.6
Equity warrant assets (private portfolio)	160,692	Black-Scholes option pricing model	Volatility	23.6% - 54.8%	38.2
			Risk-Free interest rate	0.5 - 1.9	1.6
			Marketability discount (3)	17.5	17.5
			Remaining life assumption (4)	45.0	45.0

(1) In determining the fair value of our venture capital and private equity fund investment portfolio (not measured at net asset value), we evaluate a variety of factors related to each underlying private portfolio company including, but not limited to, actual and forecasted results, cash position, recent or planned transactions and market comparable companies. Additionally, we have ongoing communication with the portfolio companies and venture capital fund managers, 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.

(2) 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.

(3) 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.

(4) 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 June 30, 2020, the weighted average contractual remaining term was 6.2 years, compared to our estimated remaining life of 2.8 years. On a quarterly basis, a sensitivity analysis is performed on our remaining life assumption.

For the three and six months ended June 30, 2020 and 2019, we did not have any transfers between Level 3 and Level 1. All transfers from Level 3 to Level 2 for the three and six months ended June 30, 2020 and 2019 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

FASB guidance over financial instruments requires that we disclose estimated fair values for our 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 June 30, 2020 and December 31, 2019:

		Estimated Fair Value			
(Dollars in thousands)	**Carrying Amount**	**Total**	**Level 1**	**Level 2**	**Level 3**
June 30, 2020:					
Financial assets:					
Cash and cash equivalents	$ 14,202,106	$ 14,202,106	$ 14,202,106	$ —	$ —
Held-to-maturity securities	12,858,823	13,541,461	—	13,541,461	—
Non-marketable securities not measured at net asset value	226,236	226,236	—	—	226,236
Non-marketable securities measured at net asset value	252,513	252,513	—	—	—
Net commercial loans	32,412,462	32,728,159	—	—	32,728,159
Net consumer loans	3,724,932	3,761,539	—	—	3,761,539
FHLB and Federal Reserve Bank stock	60,673	60,673	—	—	60,673
Financial liabilities:					
Short-term borrowings	50,924	50,924	—	50,924	—
Non-maturity deposits (1)	74,128,263	74,128,263	74,128,263	—	—
Time deposits	377,501	376,762	—	376,762	—
3.50% Senior Notes	348,166	380,314	—	380,314	—
3.125% Senior Notes	495,054	537,115	—	537,115	—
Off-balance sheet financial assets:					
Commitments to extend credit	—	31,432	—	—	31,432
December 31, 2019:					
Financial assets:					
Cash and cash equivalents	$ 6,781,783	$ 6,781,783	$ 6,781,783	$ —	$ —
Held-to-maturity securities	13,842,946	14,115,272	—	14,115,272	—
Non-marketable securities not measured at net asset value	195,405	195,405	—	—	195,405
Non-marketable securities measured at net asset value	235,351	235,351	—	—	—
Net commercial loans	29,104,532	29,615,176	—	—	29,615,176
Net consumer loans	3,755,180	3,820,804	—	—	3,820,804
FHLB and Federal Reserve Bank stock	60,258	60,258	—	—	60,258
Financial liabilities:					
Short-term borrowings	17,430	17,430	—	17,430	—
Non-maturity deposits (1)	61,569,714	61,569,714	61,569,714	—	—
Time deposits	188,093	187,980	—	187,980	—
3.50% Senior Notes	347,987	366,856	—	366,856	—
Off-balance sheet financial assets:					
Commitments to extend credit	—	27,197	—	—	27,197

(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

FASB guidance over certain fund investments requires that we disclose the fair value of funds, significant investment strategies of the investees, redemption features of the investees, restrictions on the ability to sell investments, estimate of the period of time over which the underlying assets are expected to be liquidated by the investee, and unfunded commitments related to the investments.

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 of 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 March 31st, for our June 30th 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 June 30, 2020:

(Dollars in thousands)	Carrying Amount	Fair Value	Unfunded Commitments
Non-marketable securities (fair value accounting):			
Venture capital and private equity fund investments (1)	$ 213,201	$ 213,201	$ 9,462
Non-marketable securities (equity method accounting):			
Venture capital and private equity fund investments (2)	233,996	233,996	10,457
Debt funds (2)	7,004	7,004	—
Other investments (2)	11,513	11,513	886
Total	$ 465,714	$ 465,714	$ 20,805

(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 $50.7 million and $3.2 million, respectively, attributable to noncontrolling interests. 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.

18. 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. 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.

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.

19. 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 provide real estate secured loans to eligible employees through our EHOP. For additional details, see Note 17 — “Employee Compensation and Benefit Plans" under Part II, Item 8 of our 2019 Form 10-K.

20. Subsequent Events

We currently hold approximately 2.8 million shares of common stock (or warrants to acquire common stock) of BigCommerce Holdings, Inc. (“BIGC”), which recently completed its initial public offering in early August 2020. The valuation of BIGC has increased due to its IPO, as well as post-IPO share price increases. Based on these share holdings and on the closing price of BIGC’s common stock of $93.51 as of August 6, 2020, we currently estimate, on a pre-tax basis, a total of approximately $172 million to be recognized between: (i) unrealized gains on investments securities, net; (ii) gains on equity warrant assets, net; and (iii) other noninterest income. This total estimated amount is subject to change based on BIGC’s stock performance. Additionally, we have certain carried interest rights in certain funds that hold equity interests in BIGC, which may result in additional gains, but is also subject to BIGC’s stock performance.

BIGC’s valuation and its financial impact on the Company (including the extent of any gains) are subject to change based on market conditions and other factors. Additionally, gains are currently unrealized, and the extent to which such gains will become realized is subject to a variety of factors, including, among other things, the expiration of current lock-up agreements to which the securities are subject, the timing of any actual sales of the securities, changes in the valuation of the securities, and market conditions. Gains relating to our carried interest rights are further subject to the extent and timing of distributions based on the underlying funds’ general partner discretion and overall fund performance.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward-Looking Statements

This Quarterly Report on Form 10-Q, including in particular "Management's Discussion and Analysis of Financial Condition and Results of Operations" under Part I, Item 2 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 might in the future make forward-looking statements orally to analysts, investors, the media and others. Forward-looking statements are statements that are not historical facts. Broadly speaking, forward-looking statements include, but are not limited to, the following:

- Financial projections, including with respect to our net interest income, noninterest income, earnings per share, noninterest expenses (including professional services, compliance, compensation and other costs), cash flows, balance sheet positions, capital expenditures, 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/venture capital funding and investment levels;
- Forecasts of future interest rates, economic performance, and income from investments;
- Forecasts of expected levels of provisions for credit losses, nonperforming loans, loan growth and client funds;

- The potential effects of the COVID-19 pandemic; 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,” 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 these forward-looking statements are reasonable, we have based these expectations on our current beliefs as well as our assumptions, and such expectations may prove to be incorrect. 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 of 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 the interest rate environment, and the associated impact on us;
- The credit profile and credit quality of our loan portfolio and volatility of our levels of nonperforming assets and charge-offs;
- The COVID-19 pandemic and its effects on the economic and business environments in which we operate;
- The adequacy of our allowance for credit losses and the need to make provisions for credit losses for any period;
- The borrowing needs of our clients;
- The sufficiency of our capital and liquidity positions;
- The levels of loans, deposits and client investment fund balances;
- The performance of our portfolio investments; the general condition of the public and private equity and mergers and acquisitions markets and their impact on our investments, including equity warrant assets, venture capital and private equity funds and direct equity investments;
- Our overall investment plans and strategies; the realization, timing, valuation and performance of our equity or other investments;
- The levels of public offerings, mergers and acquisitions and venture capital investment activity of our clients that may impact the borrowing needs of our clients;
- 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;
- Expansion of our business internationally, and the impact of international market and economic events on us;
- The impact of governmental policy, legal requirements and regulations, including regulations promulgated by the Board of Governors of the Federal Reserve System (the "Federal Reserve"), and other regulatory requirements;
- The impact of lawsuits and claims, as well as legal or regulatory proceedings;
- The impact of changes in accounting standards and tax laws;
- The levels of equity capital available to our client or portfolio companies;
- The effectiveness of our risk management framework and quantitative models;
- Our ability to maintain or increase our market share, including through successfully implementing our business strategy and undertaking new business initiatives, including through the integration of SVB Leerink; and
- Other factors as discussed in “Risk Factors” under Part I, Item 1A in our 2019 Form 10-K and under Part II, Item 1A of this report.

We urge investors to consider all of these factors carefully in evaluating the forward-looking statements contained in this Quarterly Report on Form 10-Q. 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 Quarterly Report on Form 10-Q, except as required by law.

The following discussion and analysis of financial condition and results of operations should be read in conjunction with our unaudited interim consolidated financial statements and accompanying notes as presented in Part I, Item 1 of this report and in conjunction with our 2019 Form 10-K.

Reclassifications

Certain prior period amounts primarily related to the adoption of ASU 2016-13, CECL, have been reclassified to conform to current period presentations.

Management's Overview of Second Quarter 2020 Performance

Our second quarter 2020 performance reflected continued effective execution and the resilience of our markets. Compared to the first quarter of 2020, we saw outstanding balance sheet growth, exceptional client liquidity, low credit losses, record investment banking revenues and healthy market related gains in spite of the continuing challenging economic conditions. Compared to the second quarter of 2019, however, we saw lower income levels due to the impact of lower market rates and higher reserves. We continued to manage through the current COVID-19 pandemic, utilizing our business continuity plans to maintain client service while most of our employees and partners continue to work from home. We continue to support and engage with clients virtually, including the hosting of remote events designed to facilitate our response to the business needs of our clients within the innovation ecosystem. We successfully executed client support initiatives to allow temporary payment deferrals and other relief, as well as participated in government relief programs, specifically the Paycheck Protection Program. We continue to provide employees extended benefits, as well as practical support for working at home. Additionally, we continue to commit financial support for local, regional and global activities focused on health security, food security and shelter, and small business owner relief during this unprecedented time. As the broader economic picture remains uncertain, we continue to believe our solid financial foundation of strong capital, ample liquidity and a high-quality balance sheet makes us well-positioned to continue to support and lend to our clients and manage the impact of a weaker economy while investing in our long-term growth.

Recent Developments - COVID-19

The current global health crisis created by the COVID-19 pandemic has resulted in unprecedented challenges and volatility in economic, market and business conditions. It has caused significant economic and financial disruptions that have adversely affected, and are likely to continue to adversely affect, our business, financial condition and results of operations. We cannot predict at this time the scope and duration of the pandemic, as COVID-19 has not yet been contained and the number of cases continues to increase in many locations, including in the United States and other international locations in which we operate. Moreover, the impact of COVID-19 on economic, market and business conditions is likely to be exacerbated if uncontained for a prolonged period of time, and even if it is contained, there may be a seasonal or other resurgence of the pandemic as we have seen domestically and internationally. While there have been varying governmental and other responses to slow or control the spread of COVID-19 and to mitigate the adverse impact of COVID-19, such as stay at home orders, restrictions on business activities, economic relief for individuals and businesses, and monetary policy measures, it remains uncertain whether these actions will be successful.

The global spread of COVID-19 accelerated in March 2020 at which time it was declared a pandemic by the World Health Organization. Since then, we have been focused on our business and human response to the crisis --- managing and operating our business as seamlessly as possible, and supporting our clients, employees and communities as we weather the crisis together.

During this volatile time, we remain focused on our capital and liquidity. We are "well-capitalized," remaining above all applicable regulatory capital requirements. We have a liquid and high-quality balance sheet, with approximately half of our assets as of June 30, 2020 held in cash and marketable securities, primarily agency-backed mortgage securities and U.S. Treasuries. We also have access to other funding sources, as necessary. Moreover, we have temporarily paused our stock repurchase program and will reassess this decision once the economic environment becomes more stable. In addition, we have also elected to use a phase-in transitional approach for the estimated impact of CECL on our regulatory capital, as permitted by the 2020 CECL Transition Rule.

The uncertainties of the duration and severity of the effect of COVID-19 on economic, market and business conditions have made it more difficult to forecast our operating results and the macroeconomic conditions to which our business is subject. Some notable negative effects emerged late in the first quarter and continued through the second quarter, as discussed in this Management Discussion and Analysis section, but any longer-term effects or trends remain subject to significant uncertainty. Moreover, we are subject to heightened business, operational (including fraud), market, credit and other risks related to the COVID-19 pandemic, which may have an adverse effect on our business, financial condition and results of operations. (See "Risk Factors" under Part II, Item 1A of this report)

We continue to serve our clients during this difficult time, while managing our credit risk. During the second quarter, we offered special debt relief assistance to support certain clients who are experiencing financial hardships related to the COVID-19 pandemic, including offering certain venture-backed companies, Private Bank, Wine and other clients the opportunity to temporarily defer their scheduled loan principal payments. We continue to engage with our clients to understand client needs, and we may implement additional assistance or other relief to support clients across various sectors and life stages. Additionally, we are participating as a lender in the PPP under the CARES Act and the U.K. Coronavirus Business Interruption Loan Scheme ("CBILS") and Coronavirus Large Business Interruption Loan Scheme ("CLBILS"), and may participate in other government relief programs in the U.S. or internationally. These government programs are complex and our participation in any of these programs may lead to governmental, regulatory and other scrutiny, litigation, negative publicity and reputation damage for us and our customers who participate. For example, like many other participating banks in the United States, we have been named in various

lawsuits regarding the right to agent fees under the PPP. Overall, these relief measures, whether our own programs or our participation in government programs, are new programs for us and we may not be successful in implementing or administering the programs as intended. Further, the extent to which these programs are successful in assisting our clients is uncertain. These relief programs are temporary in nature, such as the PPP, which as currently designed, provides one-time relief, and our loan payment deferral programs, which expire during the second half of the year. Our clients may experience financial difficulties without the continued support from these programs. If these relief measures are not effective, or if they are effective for only a limited period and our clients experience delayed financial hardship, there may be an adverse effect on our revenue and results of operations, including increased provisions in our allowance for credit losses, higher rates of default and increased credit losses in future periods.

We are also prioritizing the safety and well-being of our employees. In March 2020, we activated our business continuity and pandemic plans globally, moving to a work-from-home plan, prohibiting all business travel, postponing or moving online all SVB-hosted events, and enabling remote access to our systems. We have implemented various programs to provide work, life and health-related support for our employees, ranging from expanded time-off, counseling and medical benefits for employees directly impacted by COVID-19, to providing reimbursements and practical support for working from home. In addition, we are also developing a plan for employees to eventually return to work in our offices, which will be subject to a variety of complex considerations. While much of our workforce continues to work from home through the crisis (currently expected until January 2021, subject to further extensions or other changes) and perhaps to some extent beyond the crisis, in the event that we allow an increase in remote working practices even after the pandemic subsides, we will need to continue to provide support to our employees to work effectively in a remote environment, taking into consideration needs relating to technology, physical working conditions, work/life balance, and continued team collaboration.

Moreover, consistent with our tradition of supporting and giving back to our communities, we have also committed $5.5 million to local, regional and global COVID-19 relief activities in various U.S. and international locations where we have offices. This includes corporate contributions to global, national and regional charities, direct community-based giving, and a 3:1 match for employees' donations to relevant causes. We also announced our intention to donate PPP loan origination fees, net of costs incurred, received from the Small Business Administration to COVID-19 relief efforts, currently estimated to be approximately $20 million to be donated in the fourth quarter of 2020 (the final number and timing of payment will depend on actual costs incurred and the timing of forgiveness).

Although the effects of the pandemic remain uncertain, we currently expect for the second half of 2020: on-balance sheet deposit growth, flat to slightly lower average loans, continued reduced activity in our core fees business and higher credit losses from sectors most impacted by efforts to contain COVID-19. Additionally, we anticipate that equity markets and IPO and M&A activity may be volatile in future quarters, causing volatility in investment banking and market-sensitive revenues. Even after the pandemic subsides, it is possible that the U.S. and other major economies will continue to experience a prolonged recession, which we expect would materially and adversely affect our business, financial condition, liquidity, capital and results of operations.

A summary of our performance for the three months ended June 30, 2020 (compared to the three months ended June 30, 2019, where applicable) is as follows:

BALANCE SHEET

Assets. $78.4 billion in average total assets (up 29.2%). $85.7 billion in period-end total assets (up 34.4%).

Loans. $36.5 billion in average total loan balances (up 24.2%). $36.7 billion in period-end total loan balances (up 25.7%).

Total Client Funds. (on-balance sheet deposits and off-balance sheet client investment funds). $177.2 billion in average total client fund balances (up 24.2%). $190.4 billion in period-end total client fund balances (up 29.4%).

AFS/HTM Fixed Income Investments. $25.8 billion in average fixed income investment securities (up 11.7%). $31.3 billion in period-end fixed income investment securities (up 37.3%).

EARNINGS

EPS. Earnings per diluted share of $4.42 (down 27.3%).

Net Income. Consolidated net income available to common stockholders of $228.9 million (down 28.0%).

- Net interest income of $512.9 million (down 3.1%).
- Net interest margin of 2.80% (down 88 bps).
- Noninterest income of $368.8 million (up 10.5%), non-GAAP core fee income[+] of $132.5 million (down 15.8%) and non-GAAP core fee income plus investment banking revenue and commissions[++] of $290.9 million (up 32.0%).
- Noninterest expense of $479.6 million (up 25.1%).

ROE. Return on average equity (annualized) ("ROE") performance of 13.36%.

Operating Efficiency Ratio. Operating efficiency ratio of 54.39% with a non-GAAP core operating efficiency ratio of 55.70%[+++].

CAPITAL

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

- CET 1 risk-based capital ratio of 12.63% and 11.08%.
- Tier 1 risk-based capital ratio of 13.62% and 11.08%.
- Total risk-based capital ratio of 14.77% and 12.28%.
- Tier 1 leverage ratio of 8.68% and 6.91%.

CREDIT QUALITY

Credit Quality. Continued reserve build with low credit losses in an uncertain market environment.

- Allowance for credit losses for loans of 1.61% as a percentage of period-end total loans.
- Provision for loans of 0.57% as a percentage of period-end total loans (annualized).
- Net loan charge-offs of 0.12% as a percentage of average total loans (annualized).

[+] Consists of fee income for deposit services, letters of credit and standby letters of credit, credit cards, client investments, 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 non-GAAP core fee income plus investment banking revenue and commissions. This is a non-GAAP financial measure. (See the non-GAAP reconciliation under "Results of Operations—Noninterest Income").

[+++] This ratio excludes certain financial line items where performance is typically subject to market or other conditions beyond our control and excludes SVB Leerink revenue and expenses. It is calculated by dividing noninterest expense after adjusting for noninterest expense attributable to SVB Leerink by total revenue after adjusting for noninterest income attributable to SVB Leerink, net gains or losses on investment securities and equity warrant assets, investment banking revenue and commissions. Additionally, noninterest expense and total revenue are adjusted for income or losses and expenses attributable to noncontrolling interests and adjustments to net interest income for a taxable equivalent basis. This is a non-GAAP financial measure. (See the non-GAAP reconciliation under "Results of Operations-Noninterest Expense").

[++++] 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 1, Item 2 of this report.

A summary of our performance for the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands, except per share data, employees and ratios)	**2020**	**2019**	**% Change**	**2020**	**2019**	**% Change**
Income Statement:						
Diluted earnings per share	$ 4.42	$ 6.08	(27.3) %	$ 6.97	$ 11.51	(39.4) %
Net income available to common stockholders	228,935	317,987	(28.0)	361,188	606,719	(40.5)
Net interest income	512,927	529,403	(3.1)	1,037,064	1,042,289	(0.5)
Net interest margin	2.80%	3.68%	(88) bps	2.95%	3.74%	(79) bps
Provision for credit losses	$ 66,481	$ 23,946	177.6 %	$ 309,961	$ 52,497	490.4 %
Noninterest income	368,848	333,750	10.5	670,782	614,126	9.2
Noninterest expense	479,636	383,522	25.1	879,221	749,186	17.4
Non-GAAP core fee income (1)	132,525	157,337	(15.8)	300,983	311,580	(3.4)
Non-GAAP core fee income, plus investment banking revenue and commissions (1)	290,946	220,460	32.0	522,293	438,606	19.1
Non-GAAP noninterest income, net of noncontrolling interests (1)	354,463	315,014	12.5	658,251	592,142	11.2
Non-GAAP noninterest expense, net of noncontrolling interests (2)	479,506	383,354	25.1	878,951	748,639	17.4
Balance Sheet:						
Average available-for-sale securities	$ 12,784,271	$ 8,205,333	55.8 %	$ 13,175,090	$ 7,541,439	74.7 %
Average held-to-maturity securities	13,039,430	14,922,589	(12.6)	13,307,746	15,072,441	(11.7)
Average loans, amortized cost	36,512,159	29,406,620	24.2	35,086,444	28,900,160	21.4
Average noninterest-bearing demand deposits	46,086,948	38,117,893	20.9	43,711,466	38,170,001	14.5
Average interest-bearing deposits	21,829,433	14,844,315	47.1	21,150,840	13,177,179	60.5
Average total deposits	67,916,381	52,962,208	28.2	64,862,306	51,347,180	26.3
Earnings Ratios:						
Return on average assets (annualized) (3)	1.17%	2.10%	(44.3) %	0.96%	2.07%	(53.6) %
Return on average SVBFG stockholders' equity (annualized) (4)	13.36	23.29	(42.6)	10.84	22.74	(52.3)
Asset Quality Ratios:						
Allowance for credit losses for loans as a % of total period-end loans (5)	1.61%	1.03%	58 bps	1.61%	1.03%	58 bps
Allowance for credit losses for performing loans as a % of total performing loans (5)	1.46	0.85	61	1.46	0.85	61
Gross loan charge-offs as a % of average total loans (annualized) (5)	0.17	0.36	(19)	0.30	0.25	5
Net loan charge-offs as a % of average total loans (annualized) (5)	0.12	0.23	(11)	0.23	0.17	6
Capital Ratios:						
SVBFG CET 1 risk-based capital ratio	12.63%	12.92%	(29) bps	12.63%	12.92%	(29) bps
SVBFG tier 1 risk-based capital ratio	13.62	13.08	54	13.62	13.08	54
SVBFG total risk-based capital ratio	14.77	13.97	80	14.77	13.97	80
SVBFG tier 1 leverage ratio	8.68	8.82	(14)	8.68	8.82	(14)
SVBFG tangible common equity to tangible assets (6)	7.94	8.43	(49)	7.94	8.43	(49)
SVBFG tangible common equity to risk-weighted assets (6)	13.68	13.13	55	13.68	13.13	55
Bank CET 1 risk-based capital ratio	11.08	12.50	(142)	11.08	12.50	(142)
Bank tier 1 risk-based capital ratio	11.08	12.50	(142)	11.08	12.50	(142)
Bank total risk-based capital ratio	12.28	13.44	(116)	12.28	13.44	(116)
Bank tier 1 leverage ratio	6.91	8.17	(126)	6.91	8.17	(126)
Bank tangible common equity to tangible assets (6)	6.91	7.91	(100)	6.91	7.91	(100)
Bank tangible common equity to risk-weighted assets (6)	12.17	12.72	(55)	12.17	12.72	(55)
Other Ratios:						
Operating efficiency ratio (7)	54.39%	44.43%	22.4 %	51.48%	45.23%	13.8 %
Non-GAAP core operating efficiency ratio (2)	55.70	45.49	22.4	51.59	45.11	14.4
Total costs of deposits (annualized) (8)	0.03	0.36	(91.7)	0.13	0.29	(55.2)
Book value per common share (9)	$ 134.89	$ 107.72	25.2	$ 134.89	$ 107.72	25.2
Other Statistics:						
Average full-time equivalent employees	3,855	3,287	17.3 %	3,764	3,257	15.6 %
Period-end full-time equivalent employees	3,984	3,314	20.2	3,984	3,314	20.2

(1) 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.
(2) See “Results of Operations–Noninterest Expense” for a description and reconciliation of non-GAAP noninterest expense and non-GAAP core operating efficiency ratio.
(3) Ratio represents annualized consolidated net income available to common stockholders divided by quarterly average assets.
(4) Ratio represents annualized consolidated net income available to common stockholders divided by quarterly average SVBFG stockholders’ equity.
(5) For the three and six months ended June 30, 2020, the ratios are calculated using the amortized cost basis for total loans as a result of the adoption of CECL. Prior period ratios were calculated using total gross loans in accordance with previous methodology.
(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 net interest income plus noninterest income.
(8) Ratio represents annualized 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.

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

The accompanying management’s discussion and analysis of results of operations and financial condition is based upon our unaudited interim consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these financial statements in accordance with GAAP requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosure of contingent assets and liabilities. Management evaluates estimates and assumptions on an ongoing basis. Management bases its 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.

Except as set forth below, there have been no significant changes during the six months ended June 30, 2020 to the items that we disclosed as our critical accounting policies and estimates in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under Part II, Item 7 of our 2019 Form 10-K.

We disclose our method and approach for the allowance for credit losses for loans, unfunded credit commitments and HTM securities critical accounting policy in Note 1 - “Basis of Presentation” of the “Notes to Interim Consolidated Financial Statements” under Part I, Item 1 of this report.

Allowance for Credit Losses

We consider this accounting policy to be critical as estimation of expected credit losses involves material management estimates and is susceptible to significant changes in the near-term. Determining the allowance for credit losses for loans, unfunded credit commitments and HTM securities 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 allowance for credit losses 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

The methodology for estimating the amount of ECL reported in the allowance for credit losses has two main components: (1) ECL assessed on a collective basis for pools of loans that share similar risk characteristics which includes a qualitative adjustment based on our assessment of the risks that may lead to a future loan loss experience different from our historical loan loss experience and (2) ECL assessed for individual loans that do not 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: (1) probability of default ("PD"), (2) loss given default ("LGD") and (3) 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 judgement. Renewals and extensions within our control are not considered in the estimated contractual term of a loan. However, we include potential extensions if management has a reasonable expectation that we will execute a TDR with the borrower. 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 three years for all portfolio segments. To the extent the remaining contractual lives of loans in the portfolio extend beyond this three-year period, we revert to historical averages gradually over the remaining contractual lives, adjusted for prepayments. The macroeconomic scenarios are reviewed on a quarterly basis.

We also apply a qualitative factor adjustment to the results obtained through our quantitative ECL models to consider relevant qualitative factors that relate to the environment in which the entity operates and are specific to the borrower. These

adjustments are based upon our assessment of the risks that may lead to a future loan loss experience different from our historical loan loss experience. These risks are aggregated to become our qualitative allocation. Based on our qualitative assessment and prediction or estimate of changing risks in the lending environment, the qualitative allocation may vary significantly from period to period. Refer to Note 1 - “Basis of Presentation” of the “Notes to Interim Consolidated Financial Statements” under Part I, Item I of this report for a summary of the factors we consider for its qualitative adjustments as part of our estimate of the changing risks in the lending environment.

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, expected credit loss 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 and accepted at least annually.

Expected Credit Losses Estimate for Unfunded Credit Commitments

We maintain a separate allowance for credit losses 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 allowance for credit losses on unfunded credit commitments. Loan commitments that are determined to be unconditionally cancellable by the Bank do not require an allowance for credit losses.

Expected Credit Losses Estimate for Held-to-Maturity Investments

We measure ECL on held-to-maturity securities on a collective basis by major security type and standard credit rating. Our held-to-maturity securities portfolio, with the exception of our municipal bond 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 municipal bond portfolio 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 to our municipal bond portfolio, with immediate reversion to long-term average historical loss rates when remaining contractual lives of securities exceed one year.

Recent Accounting Pronouncements

In December 2019, the FASB issued Accounting Standards Update No. 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes which is part of the FASB’s initiative to reduce cost and complexity related to accounting for income taxes. The ASU eliminates certain exceptions to the general principles of ASC 740, Income Taxes, and simplifies income tax accounting in several areas. The amendments are effective for fiscal years (and interim periods within those fiscal years) beginning after December 15, 2020, with early adoption permitted. The ASU allows entities to adopt this provision on a retrospective basis for all periods presented or a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of the beginning of the period of adoption. We do not anticipate a material impact from this ASU on our financial position, results of operations, cash flows and disclosures.

In March 2020, the FASB issued a new Accounting Standard Update (ASU No. 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting). This ASU provides temporary optional expedients and exceptions to GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens of the expected market transition from LIBOR and other interbank offered rates to alternative reference rates, such as SOFR. For instance, entities can (1) elect not to apply certain modification accounting requirements to contracts affected by reference rate reform, if certain criteria are met. An entity that makes this election would not have to remeasure the contracts at the modification date or reassess a previous accounting determination; (2) elect various optional expedients that would allow them to continue applying hedge accounting for hedging relationships affected by reference rate reform, if certain criteria are met; and (3) make a one-time election to sell and/or reclassify held-to-maturity debt securities that reference an interest rate affected by reference rate reform. This guidance became effective on March 12, 2020 and an entity may elect to prospectively apply each category of

exemption independently, either in the interim period that includes March 12, 2020, or in a subsequent period through December 31, 2022. We have implemented a process to assess the population of contracts that will be impacted by this ASU and to evaluate expedients we will use and when we might apply them. We are currently evaluating the impact this guidance will have on our financial position, results of operations, cash flows and disclosures.

Results of Operations

Net Interest Income and Margin (Fully Taxable Equivalent Basis)

Net interest income is defined as the difference between: (i) interest earned on loans, fixed income investments in our available-for-sale and held-to-maturity securities portfolios and short-term investment securities and (ii) interest paid on funding sources. Net interest margin is defined as annualized net interest income, on a fully taxable equivalent basis, as a percentage of average interest-earning assets. Net interest income 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 federal statutory tax rate of 21.0 percent.

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

Net interest income is affected by changes in the amount and mix of interest-earning assets and interest-bearing liabilities, referred to as “volume change.” Net interest income 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 periods 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.

	2020 Compared to 2019			2020 Compared to 2019		
	Three months ended June 30, increase (decrease) due to change in			Six months ended June 30, increase (decrease) due to change in		
(Dollars in thousands)	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	$ 1,316	$ (25,278)	$ (23,962)	$ 9,730	$ (35,284)	$ (25,554)
Fixed income investment portfolio (taxable)	8,443	(1,291)	7,152	33,539	1,281	34,820
Fixed income investment portfolio (non-taxable)	4,937	(465)	4,472	7,742	(881)	6,861
Loans, amortized cost	70,873	(119,840)	(48,967)	132,298	(192,840)	(60,542)
Increase (decrease) in interest income, net	85,569	(146,874)	(61,305)	183,309	(227,724)	(44,415)
Interest expense:						
Interest bearing checking and savings accounts	1,302	248	1,550	1,109	433	1,542
Money market deposits	992	(38,670)	(37,678)	13,917	(40,413)	(26,496)
Money market deposits in foreign offices	11	(1)	10	22	(3)	19
Time deposits	206	(30)	176	496	80	576
Sweep deposits in foreign offices	10	(5,524)	(5,514)	421	(8,027)	(7,606)
Total increase (decrease) in deposits expense	2,521	(43,977)	(41,456)	15,965	(47,930)	(31,965)
Short-term borrowings	410	(1,014)	(604)	2,177	(2,270)	(93)
3.125% Senior Notes	1,159	—	1,159	1,159	—	1,159
3.50% Senior Notes	3	—	3	6	—	6
5.375% Senior Notes	(4,870)	—	(4,870)	(9,738)	—	(9,738)
Total decrease in borrowings expense	(3,298)	(1,014)	(4,312)	(6,396)	(2,270)	(8,666)
(Decrease) increase in interest expense, net	(777)	(44,991)	(45,768)	9,569	(50,200)	(40,631)
Increase (decrease) in net interest income	$ 86,346	$ (101,883)	$ (15,537)	$ 173,740	$ (177,524)	$ (3,784)

Net Interest Income (Fully Taxable Equivalent Basis)

Three months ended June 30, 2020 and 2019

Net interest income decreased by $15.5 million to $516.8 million for the three months ended June 30, 2020, compared to $532.3 million for the comparable 2019 period. Overall, our net interest income decreased primarily from a decrease in interest income from loans, reflective of lower gross loan yields and a decrease in interest income from short-term investment securities reflective primarily of a decrease in yields on loans reflective of the three 25 basis point Federal Funds rate decreases in the latter half of 2019 as well as the aggregate 150 basis point decrease in March 2020. The overall decrease was partially offset by a decrease in interest paid on our interest-bearing deposits due to market interest rate decreases.

The main factors affecting interest income and interest expense for the three months ended June 30, 2020, compared to the comparable 2019 period are discussed below:

- *Interest income* for the three months ended June 30, 2020 decreased by $61.3 million due primarily to:
  - A $49.0 million decrease in interest income on loans to $365.1 million for the three months ended June 30, 2020, compared to $414.1 million for the comparable 2019 period. The decrease was reflective of a decrease in the overall loan yields of 163 basis points to 4.02 percent from 5.65 percent partially offset by an increase in average loan balances of $7.1 billion. Gross loan yields, excluding loan interest recoveries and loan fees, decreased 153 basis points to 3.48 percent from 5.01 percent, reflective primarily of the impact of the decreases in Federal Funds rates as discussed above, partially offset by an increase reflective of the impact of the reclassification of unrealized gains on interest rate swap cash flow hedges that were terminated in the first quarter of 2020 and effective loan floors.
  - A $23.9 million decrease in interest income from our short-term investment securities. The decrease was due primarily to the decrease in Federal Funds rates as discussed above, partially offset by
  - An $11.6 million increase in interest income from our fixed income investment securities. The increase was due primarily to the increase of $2.7 billion in average fixed income investment securities.
- *Interest expense* for the three months ended June 30, 2020 decreased by $45.8 million due primarily to:
  - A $41.5 million decrease in interest expense on deposits due primarily to a decrease in interest paid on our interest-bearing money market deposits due to the decreases in market rates, and
  - A $4.3 million decrease in interest expense on borrowings due primarily to the extinguishment of our 5.375% Senior Notes in December 2019.

Six months ended June 30, 2020 and 2019

The main factors affecting interest income and interest expense for the six months ended June 30, 2020, compared to the comparable 2019 period are discussed below:

- *Interest income* for the six months ended June 30, 2020 decreased by $44.4 million due primarily to:
  - A $60.5 million decrease in interest income on loans to $747.7 million for the six months ended June 30, 2020, compared to $808.2 million for the comparable 2019 period. The decrease was reflective of a decrease in the overall loan yields of 135 basis points to 4.29 percent from 5.64 percent partially offset by an increase in average loan balances of $6.2 billion. Gross loan yields, excluding loan interest recoveries and loan fees, decreased 126 basis points to 3.79 percent from 5.05 percent, reflective primarily of the impact of the decreases in Federal Funds rates as discussed above, partially offset by an increase reflective of the impact of the reclassification of unrealized gains on interest rate swap cash flow hedges that were terminated in the first quarter of 2020 and effective loan floors, and
  - A $25.6 million decrease in interest income from our interest earning cash and short-term investment securities. The decrease was due primarily to the decrease in Federal Funds interest rates as discussed above, partially offset by
  - An $41.7 million increase in interest income from our fixed income investment securities. The increase was due primarily to the increase of $3.9 billion in average fixed income investment securities.
- *Interest expense* for the six months ended June 30, 2020 decreased by $40.6 million primarily due to:
  - A $32.0 million decrease in interest expense on deposits due primarily to a decrease in interest paid on our interest-bearing money market deposits due to the decreases in market rates.

Net Interest Margin (Fully Taxable Equivalent Basis)

Three months ended June 30, 2020 and 2019

- Our net interest margin decreased by 88 basis points to 2.80 percent for the three months ended June 30, 2020, compared to 3.68 percent for the comparable 2019 period. The lower margin for the three months ended June 30, 2020 was due primarily to a decrease in yields on loans reflective of the Federal Funds rate decreases as discussed above, as well as a shift in the mix of the growth in our interest-earning assets to lower-yielding short-term investment securities portfolio from our loan portfolio. The decrease in our net interest margin was partially offset by increases from our interest rate swap cash flow hedges which were terminated in the first quarter of 2020 and effective loan floors. Average loans represented 49.3 percent of average interest earnings assets for the three months ended June 30, 2020, compared to 50.8 percent for the comparable 2019 period.

Six months ended June 30, 2020 and 2019

- Our net interest margin decreased by 79 basis points to 2.95 percent for the six months ended June 30, 2020, compared to 3.74 percent for the comparable 2019 period. The lower margin for the six months ended June 30, 2020 was reflective primarily of the decreases in the Federal Funds as discussed above, as well as a shift in the mix of the growth in our interest-earning assets to lower-yielding short-term investment securities portfolio from our loan portfolio, partially offset by increases from our interest rate swap cash flow hedges which were terminated in the first quarter of 2020 and effective loan floors. Average loans represented 49.3 percent of year-to-date average interest earnings assets, compared to 51.2 percent for the comparable 2019 period.

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

The average yield earned on interest-earning assets is the amount of annualized 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 annualized interest expense expressed as a percentage of average funding sources. The following tables set forth average assets, liabilities, noncontrolling interests, preferred stock, and SVBFG stockholders' equity, interest income, interest expense, annualized yields and rates, and the composition of our annualized net interest margin for the three and six months ended June 30, 2020 and 2019:

Average Balances, Rates and Yields for the Three Months Ended June 30, 2020 and 2019

(Dollars in thousands)	Three months ended June 30, 2020 Average Balance	2020 Interest Income/ Expense	2020 Yield/ Rate	2019 Average Balance	2019 Interest Income/ Expense	2019 Yield/ Rate
Interest-earning assets:						
Federal Reserve deposits, federal funds sold, securities purchased under agreements to resell and other short-term investment securities (1)	$ 11,919,819	$ 2,402	0.08%	$ 5,405,899	$ 26,364	1.96%
Investment securities: (2)						
Available-for-sale securities:						
Taxable	12,784,271	69,251	2.18	8,205,333	45,347	2.22
Held-to-maturity securities:						
Taxable	10,886,944	72,296	2.67	13,350,533	89,048	2.68
Non-taxable (3)	2,152,486	18,308	3.42	1,572,056	13,836	3.53
Total loans, amortized cost (4) (5)	36,512,159	365,110	4.02	29,406,620	414,077	5.65
Total interest-earning assets	74,255,679	527,367	2.85	57,940,441	588,672	4.07
Cash and due from banks	894,412			542,345		
Allowance for credit losses for loans	(560,650)			(311,709)		
Other assets (6)	3,842,561			2,529,409		
Total assets	$ 78,432,002			$ 60,700,486		
Funding sources:						
Interest-bearing liabilities:						
Interest bearing checking and savings accounts	$ 2,175,316	$ 1,650	0.31%	$ 459,972	$ 100	0.09%
Money market deposits	17,530,821	3,571	0.08	12,669,422	41,249	1.31
Money market deposits in foreign offices	290,992	26	0.04	162,586	16	0.04
Time deposits	186,894	347	0.75	75,721	171	0.91
Sweep deposits in foreign offices	1,645,410	100	0.02	1,476,614	5,614	1.52
Total interest-bearing deposits	21,829,433	5,694	0.10	14,844,315	47,150	1.27
Short-term borrowings	618,099	591	0.38	188,998	1,195	2.54
3.125% Senior Notes	141,509	1,159	3.29	—	—	—
3.50% Senior Notes	348,107	3,152	3.64	347,755	3,149	3.63
5.375% Senior Notes	—	—	—	349,048	4,870	5.60
Total interest-bearing liabilities	22,937,148	10,596	0.19	15,730,116	56,364	1.44
Portion of noninterest-bearing funding sources	51,318,531			42,210,325		
Total funding sources	74,255,679	10,596	0.05	57,940,441	56,364	0.39
Noninterest-bearing funding sources:						
Demand deposits	46,086,948			38,117,893		
Other liabilities	2,024,098			1,232,464		
Preferred stock	340,138			—		
SVBFG common stockholders' equity	6,893,986			5,477,148		
Noncontrolling interests	149,684			142,865		
Portion used to fund interest-earning assets	(51,318,531)			(42,210,325)		
Total liabilities, noncontrolling interest, and SVBFG stockholders' equity	$ 78,432,002			$ 60,700,486		
Net interest income and margin		$ 516,771	2.80%		$ 532,308	3.68%
Total deposits	$ 67,916,381			$ 52,962,208		
Reconciliation to reported net interest income:						
Adjustments for taxable equivalent basis		(3,844)			(2,905)	
Net interest income, as reported		$ 512,927			$ 529,403	

(1) Includes average interest-earning deposits in other financial institutions of $0.9 billion and $0.9 billion for the three months ended June 30, 2020 and 2019, respectively. For the three months ended June 30, 2020 and 2019, balances also include $10.0 billion and $3.7 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) Interest income on non-taxable investment securities is presented on a fully taxable equivalent basis using the federal statutory tax rate of 21.0 percent for all periods presented.
(4) Nonaccrual loans are reflected in the average balances of loans.
(5) Interest income includes loan fees of $49.6 million and $44.1 million for the three months ended June 30, 2020 and 2019, respectively.
(6) Average investment securities of $1.9 billion and $1.0 billion for the three months ended June 30, 2020 and 2019, respectively, were classified as other assets as they were noninterest-earning assets. These investments primarily consisted of non-marketable and other equity securities.

Average Balances, Rates and Yields for the Six Months Ended June 30, 2020 and 2019

	Six months ended June 30,					
	2020			2019		
(Dollars in thousands)	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)	$ 9,614,262	$ 20,026	0.42%	$ 4,935,751	$ 45,580	1.86%
Investment securities: (2)						
Available-for-sale securities:						
Taxable	13,175,090	146,274	2.23	7,541,439	80,769	2.16
Held-to-maturity securities:						
Taxable	11,281,183	149,658	2.67	13,500,091	180,343	2.69
Non-taxable (3)	2,026,563	34,541	3.43	1,572,350	27,680	3.55
Total loans, amortized cost (4) (5)	35,086,444	747,679	4.29	28,900,160	808,221	5.64
Total interest-earning assets	71,183,542	1,098,178	3.10	56,449,791	1,142,593	4.08
Cash and due from banks	845,945			534,769		
Allowance for credit losses for loans	(444,231)			(300,381)		
Other assets (6)	3,834,329			2,439,055		
Total assets	$ 75,419,585			$ 59,123,234		
Funding sources:						
Interest-bearing liabilities:						
Interest bearing checking and savings accounts	$ 1,360,871	$ 1,758	0.26%	$ 502,369	$ 216	0.09%
Money market deposits	17,572,200	36,584	0.42	10,881,455	63,080	1.17
Money market deposits in foreign offices	278,518	50	0.04	155,503	31	0.04
Time deposits	175,119	776	0.89	63,275	200	0.64
Sweep deposits in foreign offices	1,764,132	3,924	0.45	1,574,577	11,530	1.48
Total interest-bearing deposits	21,150,840	43,092	0.41	13,177,179	75,057	1.15
Short-term borrowings	793,998	3,306	0.84	270,740	3,399	2.53
3.125% Senior Notes	70,755	1,159	3.29	—	—	—
3.50% Senior Notes	348,063	6,304	3.64	347,712	6,298	3.65
5.375% Senior Notes	—	—	—	348,966	9,738	5.63
Total interest-bearing liabilities	22,363,656	53,861	0.48	14,144,597	94,492	1.35
Portion of noninterest-bearing funding sources	48,819,886			42,305,194		
Total funding sources	71,183,542	53,861	0.15	56,449,791	94,492	0.34
Noninterest-bearing funding sources:						
Demand deposits	43,711,466			38,170,001		
Other liabilities	2,150,563			1,280,981		
Preferred stock	340,154			—		
SVBFG common stockholders' equity	6,703,466			5,381,022		
Noncontrolling interests	150,280			146,633		
Portion used to fund interest-earning assets	(48,819,886)			(42,305,194)		
Total liabilities, noncontrolling interest, and SVBFG stockholders' equity	$ 75,419,585			$ 59,123,234		
Net interest income and margin		$ 1,044,317	2.95%		$ 1,048,101	3.74%
Total deposits	$ 64,862,306			$ 51,347,180		
Reconciliation to reported net interest income:						
Adjustments for taxable equivalent basis		(7,253)			(5,812)	
Net interest income, as reported		$ 1,037,064			$ 1,042,289	

(1) Includes average interest-earning deposits in other financial institutions of $0.9 billion and $0.8 billion six months ended June 30, 2020 and 2019, respectively. The balance also includes $7.8 billion and $3.3 billion deposited at the FRB, earning interest at the Federal Funds target rate for the six months ended June 30, 2020 and 2019, respectively.
(2) Yields on interest-earning investment securities do not give effect to changes in fair value that are reflected in other comprehensive income.
(3) Interest income on non-taxable available-for-sale securities is presented on a fully taxable-equivalent basis using the federal statutory tax rate of 21.0 percent for all periods presented.
(4) Nonaccrual loans are reflected in the average balances of loans.
(5) Interest income includes loan fees of $86.2 million and $80.8 million for the six months ended June 30, 2020 and 2019, respectively.
(6) Average investment securities of $1.7 billion and $1.0 billion for the six months ended June 30, 2020 and 2019, respectively, were classified as other assets as they were noninterest-earning assets. These investments consisted primarily of non-marketable securities.

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 provision for credit losses equals our best estimate of probable credit losses that are inherent in the portfolios at the balance sheet date.

The following table summarizes our allowance for credit losses for loans, unfunded credit commitments and HTM securities for the three and six months ended June 30, 2020 and 2019:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands, except ratios)	**2020**	**2019**	**2020**	**2019**
Allowance for credit losses for loans, beginning balance	$ 548,963	$ 300,151	$ 304,924	$ 280,903
Day one impact of adopting ASC 326	—	—	25,464	—
Provision for loans	51,899	19,148	300,800	44,969
Gross loan charge-offs	(15,055)	(26,435)	(51,951)	(35,435)
Loan recoveries	4,073	9,820	11,828	11,245
Foreign currency translation adjustments	(52)	(796)	(1,237)	206
Allowance for credit losses for loans, ending balance	$ 589,828	$ 301,888	$ 589,828	$ 301,888
Allowance for credit losses for unfunded credit commitments, beginning balance	84,690	57,970	67,656	55,183
Day one impact of adopting ASC 326	—	—	22,826	—
Provision for unfunded credit commitments	14,590	4,798	9,113	7,528
Foreign currency translation adjustments	14	(104)	(301)	(47)
Allowance for credit losses for unfunded credit commitments, ending balance (1)	$ 99,294	$ 62,664	$ 99,294	$ 62,664
Allowance for credit losses for HTM securities, beginning balance	230	—	—	—
Day one impact of adopting ASC 326	—	—	174	—
(Reduction of) provision for HTM securities	(8)	—	48	—
Allowance for credit losses for HTM securities, ending balance (2)	$ 222	$ —	$ 222	$ —
Ratios and other information:				
Provision for loans as a percentage of period-end total loans (annualized) (3)	0.57%	0.26%	1.65%	0.31%
Gross loan charge-offs as a percentage of average total loans (annualized)	0.17	0.36	0.30	0.25
Net loan charge-offs as a percentage of average total loans (annualized)	0.12	0.23	0.23	0.17
Allowance for credit losses for loans as a percentage of period-end total loans (3)	1.61	1.03	1.61	1.03
Provision for credit losses	$ 66,481	$ 23,946	$ 309,961	$ 52,497
Period-end total loans (3)	36,727,222	29,370,403	36,727,222	29,370,403
Average total loans (3)	36,512,159	29,568,968	35,086,444	29,065,111
Allowance for loan losses for nonaccrual loans	54,383	53,067	54,383	53,067
Nonaccrual loans	94,326	96,641	94,326	96,641

(1) The “allowance for credit losses for unfunded credit commitments” is included as a component of “Other liabilities” on our consolidated balance sheets.

(2) The "allowance for credit losses for HTM securities" is included as a component of HTM securities and presented net in our consolidated financial statements.

(3) For the three and six months ended June 30, 2020, loan amounts are disclosed, and ratios are calculated, using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed, and ratios are calculated, using the gross basis.

Three months ended June 30, 2020 and 2019

Our provision for credit losses was $66.5 million for the three months ended June 30, 2020, consisting of a provision for loans of $51.9 million, a provision for credit losses for unfunded credit commitments of $14.6 million and a reduction of our expected credit losses for our HTM securities of $8 thousand. Our provision for credit losses was $23.9 million for the three months ended June 30, 2019, consisting of a provision for loans of $19.1 million and a provision for unfunded credit commitments of $4.8 million.

The provision for credit losses for loans of $51.9 million for the three months ended June 30, 2020 was driven primarily by $26.2 million in additional reserves for our performing loans based on our forecast models of the current economic environment under the CECL methodology adopted January 1, 2020, including qualitative adjustments to account for unprecedented economic forecast volatility, $24.2 million for net new nonaccrual loans and $10.5 million for charge-offs not specifically reserved for at March 31, 2020, partially offset by a $4.9 million decrease related to changes in loan composition within our portfolio segments and $4.1 million of recoveries.

A provision for credit losses for unfunded credit commitments of $14.6 million was driven primarily by the forecast models of the current economic environment under the CECL methodology adopted January 1, 2020, as well as changes in the unfunded credit commitments composition within our portfolio segments.

The provision for loan losses of $19.1 million for the three months ended June 30, 2019 reflects an increase of $7.5 million for our performing loans, $10.9 million for net new nonaccrual loans, $7.3 million for charge-offs not specifically reserved for and $3.2 million in additional reserves for period-end loan growth, partially offset by recoveries of $9.8 million.

The provision for unfunded credit commitments of $4.8 million was driven primarily by growth in unfunded credit commitments of $0.7 billion for three months ended June 30, 2019.

Gross loan charge-offs were $15.1 million for the second quarter of 2020, of which $10.5 million was not specifically reserved for at March 31, 2020. Gross loan charge-offs were partly driven by $5.4 million charge-offs for our investor dependent clients and $4.9 million charge-off from one balance sheet dependent client. The remaining charge-offs came primarily from our cash flow dependent risk-based segment.

Gross loan charge-offs were $26.4 million for the three months ended June 30, 2019, of which $7.3 million was not specifically reserved for in prior quarters. Gross loan charge-offs were primarily driven by a $13.1 million charge-off for one mid stage life science/healthcare portfolio client previously included in our nonaccrual loan portfolio. The remaining charge-offs came primarily from our early-stage clients.

Six Months Ended June 30, 2020 and 2019

Our provision for credit losses was $310.0 million for the six months ended June 30, 2020, consisting of a provision for loan losses of $300.8 million, a provision for unfunded credit commitments of $9.1 million and a provision for HTM securities of $48 thousand. Our provision for credit losses was $52.5 million for the six months ended June 30, 2019, consisting of a provision for loan losses of $45.0 million and a provision for unfunded credit commitments of $7.5 million.

The provision for credit losses for loans of $300.8 million was driven primarily by $216.9 million in additional reserves for our performing loans based on our forecast models of the current economic environment under the CECL methodology adopted January 1, 2020, including the impact of the COVID-19 pandemic, as well as changes in loan composition within our portfolio segments, $36.1 million in additional reserves for period-end loan growth, $23.6 million for charge-offs not specifically reserved for at December 31, 2019 and $34.8 million in net new nonaccrual loans, partially offset by $11.8 million of recoveries.

A provision for credit losses for unfunded credit commitments of $9.1 million was driven primarily by the forecast models of the current economic environment under the CECL methodology adopted January 1, 2020, including the impact of the COVID-19 pandemic, as well as changes in the unfunded credit commitments composition within our portfolio segments.

The provision for loan losses of $45.0 million for the six months ended June 30, 2019 was reflective primarily of $38.4 million in net new specific reserves for nonaccrual loans, $12.2 million for charge-offs not specifically reserved for in prior quarters and$7.3 million from period-end loan growth, partially offset by recoveries of $11.2 million.

The provision for unfunded credit commitments of $7.5 million for six months ended June 30, 2019 was driven primarily by growth in unfunded credit commitments of $2.0 billion.

Gross loan charge-offs were $52.0 million for the six months ended June 30, 2020, of which $23.6 million was not specifically reserved for in prior quarters. Gross loan charge-offs were primarily driven by $39.0 million charge-offs for our investor dependent clients and a $4.9 million charge-off from one balance sheet dependent client. The remaining charge-offs came primarily from our cash flow dependent risk-based segment.

Gross loan charge-offs were $35.4 million for the six months ended June 30, 2019, of which $12.2 million was not specifically reserved for in prior quarters. Gross loan charge-offs included $17.5 million from our life science/healthcare loan portfolio and $11.2 million from our software/internet loan portfolio. Gross loan charge-offs for our life science/healthcare portfolio were driven primarily by $13.1 million from one mid-stage client. Gross loan charge-offs for our software/internet loan portfolio were driven primarily by our early-stage clients.

See “Consolidated Financial Condition—Credit Quality and Allowance for Credit Losses for Loans and for Unfunded Credit Commitments” below and Note 7 — “Loans and Allowance for Credit Losses: Loans and Unfunded Credit Commitments” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 of this report for further details on our allowance for credit losses for loans and unfunded credit commitments.

Noninterest Income

For the three and six months ended June 30, 2020, noninterest income was $368.8 million and $670.8 million, respectively, compared to $333.8 million and $614.1 million for the comparable 2019 periods. For the three and six months ended June 30, 2020, non-GAAP noninterest income, net of noncontrolling interests was $354.5 million and $658.3 million, respectively, compared to $315.0 million and $592.1 million for the comparable 2019 periods. For the three and six months ended June 30, 2020, non-GAAP core fee income plus investment banking revenue and commissions was $290.9 million and $522.3 million, respectively compared to $220.5 million and $438.6 million for the comparable 2019 periods. For the three and six months ended June 30, 2020, non-GAAP core fee income was $132.5 million and $301.0 million, respectively, compared to $157.3 million and $311.6 million for the comparable 2019 periods. (See reconciliations of non-GAAP measures used below under “Use of Non-GAAP Financial Measures”.)

Use of Non-GAAP Financial Measures

To supplement our unaudited interim 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 core fee income plus investment banking revenue and commissions, non-GAAP noninterest income, and non-GAAP net gains on investment securities). 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 excluding items that represent income attributable to investors other than us and our subsidiaries. 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 noncontrolling interests. We recognize, as part of our investment funds management business through SVB Capital and SVB Leerink, the entire income or loss from funds consolidated in accordance with ASC Topic 810 as discussed in Note 1 — “Basis of Presentation” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 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 on investment securities exclude noncontrolling interests.

Core fee income is a non-GAAP financial measure, which represents GAAP noninterest income, but excludes (i) 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, (ii) our investment banking revenue and commissions, and (iii) other noninterest income. Core fee income includes client investment fees, foreign exchange fees, credit card fees, deposit service charges, lending related fees and letters of credit and standby letters of credit fees.

Core fee income plus investment banking revenue and commissions 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 investment banking revenue and commissions includes core fee income plus investment banking revenue and commissions.

The following table provides a reconciliation of GAAP noninterest income to non-GAAP noninterest income, net of noncontrolling interests, for the three and six months ended June 30, 2020 and 2019:

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands)	2020	2019	% Change	2020	2019	% Change
GAAP noninterest income	$ 368,848	$ 333,750	10.5 %	$ 670,782	$ 614,126	9.2 %
Less: income attributable to noncontrolling interests, including carried interest allocation	14,385	18,736	(23.2)	12,531	21,984	(43.0)
Non-GAAP noninterest income, net of noncontrolling interests	$ 354,463	$ 315,014	12.5	$ 658,251	$ 592,142	11.2

The following table provides a reconciliation of GAAP noninterest income to non-GAAP core fee income for the three and six months ended June 30, 2020 and 2019:

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands)	2020	2019	% Change	2020	2019	% Change
GAAP noninterest income	$ 368,848	$ 333,750	10.5 %	$ 670,782	$ 614,126	9.2 %
Less: gains on investment securities, net	34,868	47,698	(26.9)	80,923	76,726	5.5
Less: gains on equity warrant assets, net	26,506	48,347	(45.2)	39,901	69,652	(42.7)
Less: other noninterest income	16,528	17,245	(4.2)	27,665	29,142	(5.1)
Non-GAAP core fee income plus investment banking revenue and commissions (1)	$ 290,946	$ 220,460	32.0	$ 522,293	$ 438,606	19.1
Less: investment banking revenue	141,503	48,694	190.6	188,370	98,489	91.3
Less: commissions	16,918	14,429	17.2	32,940	28,537	15.4
Non-GAAP core fee income (2)	$ 132,525	$ 157,337	(15.8)	$ 300,983	$ 311,580	(3.4)

(1) Non-GAAP core fee income plus investment banking revenue and commissions 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 investment banking revenue and commissions is Non-GAAP core fee income (as defined in the subsequent footnote) with the addition of investment banking revenue and commissions.

(2) 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, foreign exchange fees, credit card fees, deposit service charges, lending related fees and letters of credit and standby letters of credit fees.

Gains on Investment Securities, Net

Net gains 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 Silicon Valley Bank Co., Ltd. (the Bank's joint venture in China (“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.

Three months ended June 30, 2020 and 2019

For the three months ended June 30, 2020, we had net gains on investment securities of $34.9 million, compared to $47.7 million for the comparable 2019 period. Non-GAAP net gains on investment securities, net of noncontrolling interests, were $20.5 million for the three months ended June 30, 2020, compared to non-GAAP net gains, net of controlling interest of $29.1 million for the comparable 2019 period.

Non-GAAP net gains on investment securities, net of noncontrolling interests, of $20.5 million for the three months ended June 30, 2020 were driven by the following:

- Gains of $8.5 million from our public equity securities investments, primarily driven by unrealized gains due to increases in the value of public equity securities held,
- Gains of $7.2 million from our managed direct venture funds driven primarily by unrealized gains of $6.0 million from one portfolio company,
- Gains of $6.5 million from our managed funds of funds portfolio related primarily to unrealized valuation gains, partially offset by
- Losses of $4.9 million from our strategic and other investments, comprised primarily of net unrealized valuation decreases in private companies held in our strategic venture capital funds.

Total non-GAAP net gains on investments securities of $20.5 million includes a recovery of the first quarter 2020 downward market valuation adjustment of $17.1 million from our SVB Capital managed funds and strategic direct investments (comprised of our managed funds of funds, managed direct venture funds, debt funds and strategic and other investments components below).

Six months ended June 30, 2020 and 2019

For the six months ended June 30, 2020, we had net gains on investment securities of $80.9 million, compared to $76.7 million for the comparable 2019 period. Non-GAAP net gains on investment securities, net of noncontrolling interests, were $68.1 million for the six months ended June 30, 2020, compared to $54.7 million for the comparable 2019 period. Non-GAAP net gains, net of noncontrolling interests, of $68.1 million for the six months ended June 30, 2020 were driven primarily by the following:

- Gains of $61.2 million from our AFS debt securities portfolio, resulting from the sale of $2.6 billion of U.S. Treasury securities, and
- Gains of $6.2 million from managed direct venture funds driven primarily by unrealized gains of $6.0 million from one portfolio company, partially offset by
- Losses of $8.9 million from strategic and other investments, comprised primarily of net unrealized valuation decreases in private companies held in our strategic venture capital funds.

Notwithstanding the gains from our sale of U.S. Treasury securities in our AFS debt securities portfolio, our total gains on investment securities for the remaining portfolio were negatively impacted by COVID-19 market conditions towards the end of the first quarter of 2020. Future performance of our investment securities valuations may be further impacted by the effects of the COVID-19 pandemic.

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 noncontrolling interests, for the three and six months ended June 30, 2020 and 2019:

(Dollars in thousands)	Managed Funds of Funds	Managed Direct Venture Funds	Public Equity Securities	Debt Funds	Sales of AFS Securities	Strategic and Other Investments	SVB Leerink	Total
Three months ended June 30, 2020								
Total gains (losses) on investment securities, net	$ 13,347	$ 14,743	$ 8,533	$ 94	$ —	$ (4,919)	$ 3,070	$ 34,868
Less: income (loss) attributable to noncontrolling interests, including carried interest allocation	6,818	7,576	—	—	—	—	(66)	14,328
Non-GAAP net gains (losses) on investment securities, net of noncontrolling interests	$ 6,529	$ 7,167	$ 8,533	$ 94	$ —	$ (4,919)	$ 3,136	$ 20,540
Three months ended June 30, 2019								
Total gains (losses) on investment securities, net	$ 32,335	$ 4,101	$ 444	$ 1,342	$ (275)	$ 7,311	$ 2,440	$ 47,698
Less: income (loss) attributable to noncontrolling interests, including carried interest allocation	16,852	1,711	—	—	—	—	35	$ 18,598
Non-GAAP net gains (loss) on investment securities, net of noncontrolling interests	$ 15,483	$ 2,390	$ 444	$ 1,342	$ (275)	$ 7,311	$ 2,405	$ 29,100
Six months ended June 30, 2020								
Total gains (losses) on investment securities, net	$ 10,883	$ 12,471	$ 4,327	$ (268)	$ 61,165	$ (8,936)	$ 1,281	$ 80,923
Less: income attributable to noncontrolling interests, including carried interest allocation	6,512	6,249	—	—	—	—	32	12,793
Non-GAAP net gains (losses) on investment securities, net of noncontrolling interests	$ 4,371	$ 6,222	$ 4,327	$ (268)	$ 61,165	$ (8,936)	$ 1,249	$ 68,130
Six months ended June 30, 2019								
Total gains (losses) on investment securities, net	$ 38,564	$ 3,467	$ 10,080	$ 1,342	$ (3,905)	$ 22,313	$ 4,865	$ 76,726
Less: income attributable to noncontrolling interests, including carried interest allocation	20,597	1,402	—	—	—	—	35	22,034
Non-GAAP net gains (losses) on investment securities, net of noncontrolling interests	$ 17,967	$ 2,065	$ 10,080	$ 1,342	$ (3,905)	$ 22,313	$ 4,830	$ 54,692

Gains on Equity Warrant Assets, Net

Three months ended June 30, 2020 and 2019

Net gains on equity warrant assets were $26.5 million for the three months ended June 30, 2020, compared to net gains of $48.3 million for the comparable 2019 period. Net gains on equity warrant assets for the three months ended June 30, 2020 consisted of:

- Net gains of $17.5 million from warrant valuations increases which includes the recovery of the $8.2 million downward market valuations adjustment recognized in the first quarter of 2020, reflective of the overall recovery of the market during the second quarter of 2020, and
- Net gains of $9.4 million from the exercise of equity warrant assets driven by IPO and M&A activity.

Six months ended June 30, 2020 and 2019

Net gains on equity warrant assets were $39.9 million for the six months ended June 30, 2020, compared to net gains of $69.7 million for the comparable 2019 period. Net gains on equity warrant assets for the six months ended June 30, 2020 consisted of:

- Net gains of $32.7 million from the exercise of equity warrant assets during the six months ended June 30, 2020, and
- Net gains of $8.0 million from changes in warrant valuation increases, driven primarily by valuation increases in our private company warrant portfolio during the six months ended June 30, 2020.

Our equity warrant assets were also negatively impacted by COVID-19 market conditions towards the end of the first quarter of 2020. Future performance of our equity warrant asset valuations may be further impacted by the effects of the COVID-19 pandemic.

A summary of gains on equity warrant assets, net, for the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands)	**2020**	**2019**	**% Change**	**2020**	**2019**	**% Change**
Equity warrant assets (1):						
Gains on exercises, net	$ 9,435	$ 40,226	(76.5)%	$ 32,730	$ 49,180	(33.4)%
Terminations	(439)	(1,045)	(58.0)%	(872)	(1,884)	(53.7)
Changes in fair value, net	17,510	9,166	91.0	8,043	22,356	(64.0)
Total gains on equity warrant assets, net	$ 26,506	$ 48,347	(45.2)	$ 39,901	$ 69,652	(42.7)

(1) At June 30, 2020, we held warrants in 2,419 companies, compared to 2,173 companies at June 30, 2019. The total fair value of our warrant portfolio was $171.1 million at June 30, 2020 and $158.0 million at June 30, 2019. Warrants in 20 companies each had fair values greater than $1.0 million and collectively represented $50.7 million, or 29.6 percent, of the fair value of the total warrant portfolio at June 30, 2020. Warrants in 22 companies each had fair values greater than $1.0 million and collectively represented $51.8 million, or 32.8 percent, of the fair value of the total warrant portfolio at June 30, 2019.

Non-GAAP Core Fee Income

(Dollars in thousands)	Three months ended June 30, 2020	2019	% Change	Six months ended June 30, 2020	2019	% Change
Non-GAAP core fee income (1):						
Client investment fees	$ 31,885	$ 45,744	(30.3)%	$ 75,278	$ 90,226	(16.6)%
Foreign exchange fees	36,256	38,506	(5.8)	83,761	76,554	9.4
Credit card fees	21,288	28,790	(26.1)	49,592	56,273	(11.9)
Deposit service charges	20,511	22,075	(7.1)	45,100	43,014	4.8
Lending related fees	11,164	11,213	(0.4)	24,289	25,150	(3.4)
Letters of credit and standby letters of credit fees	11,421	11,009	3.7	22,963	20,363	12.8
Total non-GAAP core fee income (1)	$ 132,525	$ 157,337	(15.8)	$ 300,983	$ 311,580	(3.4)
Investment banking revenue	141,503	48,694	190.6	188,370	98,489	91.3
Commissions	16,918	14,429	17.2	32,940	28,537	15.4
Total non-GAAP core fee income plus investment banking revenue and commissions (2)	$ 290,946	$ 220,460	32.0	$ 522,293	$ 438,606	19.1

(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 core fee income plus investment banking revenue and commissions 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. See “Use of Non-GAAP Measures” above.

Client Investment Fees

Client investment fees were $31.9 million and $75.3 million for the three and six months ended June 30, 2020, compared to $45.7 million and $90.2 million for the comparable 2019 periods. The decreases were reflective of lower spreads due to decreases in the Federal Funds interest rates, offset by large increases in average off-balance sheet client investment funds. Given our expectations of a continued low rate environment, we generally expect client investment fees in 2020 to be lower than 2019.

A summary of client investment fees by instrument type for the three and six months ended June 30, 2020 and 2019 is as follows:

(Dollars in thousands)	Three months ended June 30, 2020	2019	% Change	Six months ended June 30, 2020	2019	% Change
Client investment fees by type:						
Sweep money market fees	$ 19,413	$ 26,952	(28.0)%	$ 42,462	$ 53,496	(20.6)%
Asset management fees	11,596	6,956	66.7	20,733	13,628	52.1
Repurchase agreement fees	876	11,836	(92.6)	12,083	23,102	(47.7)
Total client investment fees	$ 31,885	$ 45,744	(30.3)	$ 75,278	$ 90,226	(16.6)

The following table summarizes average client investment funds for the three and six months ended June 30, 2020 and 2019:

(Dollars in millions)	Three months ended June 30, 2020	2019	% Change	Six months ended June 30, 2020	2019	% Change
Sweep money market funds	$ 47,561	$ 40,017	18.9%	$ 45,303	$ 39,911	13.5%
Client investment assets under management (1)	51,801	40,825	26.9	51,223	40,036	27.9
Repurchase agreements	9,898	8,810	12.3	9,849	8,586	14.7
Total average client investment funds (2)	$ 109,260	$ 89,652	21.9	$ 106,375	$ 88,533	20.2

(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 June 30, 2020 and December 31, 2019:

(Dollars in millions)	June 30, 2020	December 31, 2019	% Change
Sweep money market funds	$ 49,388	$ 43,226	14.3%
Client investment assets under management (1)	56,023	46,904	19.4
Repurchase agreements	10,510	9,062	16.0
Total period-end client investment funds (2)	$ 115,921	$ 99,192	16.9

(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.

Foreign Exchange Fees

Foreign exchange fees were $36.3 million and $83.8 million for the three and six months ended June 30, 2020, respectively, compared to $38.5 million and $76.6 million for the comparable 2019 periods. The decrease in foreign exchange fees for the three months ended June 30, 2020 compared to June 30, 2019, is driven by decreased trade volumes due to the impact of a slower macro-economic environment resulting from the COVID-19 pandemic. The increase for the six months ended June 30, 2020 compared to June 30, 2019, is reflective primarily by the overall increase in the number of clients executing spot contracts resulting in higher trade volumes from the previous year. The volume of trades for spot contracts increased five percent for the six months ended June 30, 2020 compared to the comparable period ended June 30, 2019, due primarily to our global expansion initiative and increased client engagement efforts. Foreign exchange fees have been, and may further be, impacted by the effects of the COVID-19 pandemic.

A summary of foreign exchange fee income by instrument type for the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands)	2020	2019	% Change	2020	2019	% Change
Foreign exchange fees by instrument type:						
Spot contract commissions	$ 33,093	$ 34,696	(4.6)%	$ 74,027	$ 69,725	6.2%
Forward contract commissions	3,052	3,778	(19.2)	9,391	6,773	38.7
Option premium fees	111	32	NM	343	56	NM
Total foreign exchange fees	$ 36,256	$ 38,506	(5.8)	$ 83,761	$ 76,554	9.4

NM—Not meaningful

Credit Card Fees

Credit card fees were $21.3 million and $49.6 million for the three and six months ended June 30, 2020, respectively, compared to $28.8 million and $56.3 million for the comparable 2019 periods. The decreases were primarily due to lower transaction volumes starting in March of 2020 reflective of the COVID-19 pandemic interrupting normal business activity. Credit card fees have been, and may further be, impacted by the effects of the COVID-19 pandemic.

A summary of credit card fees by instrument type for the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands)	2020	2019	% Change	2020	2019	% Change
Credit card fees by instrument type:						
Card interchange fees, net	$ 15,314	$ 22,855	(33.0)%	$ 37,089	$ 44,248	(16.2)%
Merchant service fees	5,030	4,286	17.4	10,057	8,821	14.0
Card service fees	944	1,649	(42.8)	2,446	3,204	(23.7)
Total credit card fees	$ 21,288	$ 28,790	(26.1)	$ 49,592	$ 56,273	(11.9)

Deposit Service Charges

Deposit service charges were $20.5 million and $45.1 million for the three and six months ended June 30, 2020, respectively, compared to $22.1 million and $43.0 million for the comparable 2019 periods. The decrease in deposit service charges for the three months ended June 30, 2020, compared to the comparable period ending June 30, 2019, was reflective of the decrease in client activity including the impact of a slower macro-economic environment resulting from the COVID-19 pandemic as well as increased earnings credit partly attributed to client participating in the PPP and placing increased funds in their deposit demand accounts resulting in qualifying balances to offset service charges. The increase for the six months ended June 30, 2020 compared to the comparable period ending June 30, 2019, was reflective of higher deposit client counts as well as higher volumes of our transaction-based fee products from the previous year. Deposit service charges have been, and may further be, impacted by the effects of the COVID-19 pandemic.

Lending Related Fees

Lending related fees were $11.2 million and $24.3 million for the three and six months ended June 30, 2020, respectively, compared to $11.2 million and $25.2 million for the comparable 2019 periods. Lending related fees remained flat to slightly lower for the three and six months ended June 30, 2020 compared to June 30, 2019, respectively, reflective of an increase in unused commitment fees partially offset by lower other lending related fees. The decrease in in other lending related fees is reflective primarily of lower syndication volumes resulting in decreased syndication fee income.

A summary of lending related fees by type for the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands)	**2020**	**2019**	**% Change**	**2020**	**2019**	**% Change**
Lending related fees by instrument type:						
Unused commitment fees	$ 8,324	$ 7,051	18.1 %	$ 16,730	$ 16,721	0.1 %
Other	2,840	4,162	(31.8)	7,559	8,429	(10.3)
Total lending related fees	$ 11,164	$ 11,213	(0.4)	$ 24,289	$ 25,150	(3.4)

Letters of Credit and Standby Letters of Credit Fees

Letters of credit and standby letters of credit fees were $11.4 million and $23.0 million for the three and six months ended June 30, 2020, respectively, compared to $11.0 million and $20.4 million for the comparable 2019 periods. The increases were primarily driven by an increase in deferred fee income reflective of larger letter of credit issuances. We generally expect lower fees in 2020 due to reduced international trade activities.

Investment Banking Revenue

Investment banking revenue was $141.5 million and $188.4 million for the three and six months ended June 30, 2020, respectively, compared to $48.7 million and $98.5 million for the comparable 2019 periods. The increases were attributable to higher levels of funding activity in the life science/healthcare secondary markets and by the increase in public equity underwriting fees. The revenue generated by investment banking has been, and may further be, impacted by the effects of the COVID-19 pandemic.

A summary of investment banking revenue by type for the six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands)	**2020**	**2019**	**% Change**	**2020**	**2019**	**% Change**
Investment banking revenue:						
Underwriting fees	$ 131,085	$ 42,584	NM	$ 162,375	$ 78,356	107.2 %
Advisory fees	8,922	5,315	67.9	24,409	17,588	38.8
Private placements and other	1,496	795	88.2	1,586	2,545	(37.7)
Total investment banking revenue	$ 141,503	$ 48,694	190.6	$ 188,370	$ 98,489	91.3

NM—Not meaningful

Commissions

Commissions for the three and six months ended June 30, 2020 were $16.9 million and $32.9 million, respectively, compared to $14.4 million and $28.5 million for the comparable 2019 periods. The increases were driven by client trading activity, consistent

with market volumes. Commissions include commissions received from clients for the execution of agency-based brokerage transactions in listed and over-the-counter equities. The revenue generated by investment banking has been, and may further be, impacted by the effects of the COVID-19 pandemic.

Noninterest Expense

A summary of noninterest expense for the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands)	**2020**	**2019**	**% Change**	**2020**	**2019**	**% Change**
Compensation and benefits	$ 319,797	$ 243,172	31.5 %	$ 575,383	$ 481,233	19.6 %
Professional services	63,828	40,830	56.3	102,533	77,816	31.8
Premises and equipment	27,708	23,911	15.9	54,648	45,611	19.8
Net occupancy	18,845	16,687	12.9	37,191	32,735	13.6
Business development and travel	2,992	17,022	(82.4)	17,063	32,376	(47.3)
FDIC and state assessments	6,819	4,483	52.1	12,053	8,462	42.4
Other	39,647	37,417	6.0	80,350	70,953	13.2
Total noninterest expense	$ 479,636	$ 383,522	25.1	$ 879,221	$ 749,186	17.4

Included in noninterest expense is expense attributable to noncontrolling interests. See below for a description and reconciliation of non-GAAP noninterest expense and non-GAAP core operating efficiency ratio, both of which exclude noncontrolling interests.

Non-GAAP Noninterest Expense

We use and report non-GAAP noninterest expense, non-GAAP taxable equivalent revenue and non-GAAP core operating efficiency ratio, which excludes noncontrolling interests and SVB Leerink. 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 certain items that represent expenses attributable to investors other than us and our subsidiaries, or certain items that do not occur every reporting period; or (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, not as a substitute for or preferable to, financial measures prepared in accordance with GAAP.

The table below provides a summary of non-GAAP noninterest expense and non-GAAP core operating efficiency ratio for the three and six months ended June 30, 2020 and 2019:

Non-GAAP core operating efficiency ratio (Dollars in thousands, except ratios)	Three months ended June 30,			Six months ended June 30,		
	2020	2019	% Change	2020	2019	% Change
GAAP noninterest expense	$ 479,636	$ 383,522	25.1 %	$ 879,221	$ 749,186	17.4 %
Less: expense attributable to noncontrolling interests	130	168	(22.6)	270	547	(50.6)
Non-GAAP noninterest expense, net of noncontrolling interests	479,506	383,354	25.1	878,951	748,639	17.4
Less: expense attributable to SVB Leerink	108,650	61,935	75.4	170,687	122,475	39.4
Non-GAAP noninterest expense, net of noncontrolling interests and SVB Leerink	$ 370,856	$ 321,419	15.4	$ 708,264	$ 626,164	13.1
GAAP net interest income	$ 512,927	$ 529,403	(3.1)	$ 1,037,064	$ 1,042,289	(0.5)
Adjustments for taxable equivalent basis	3,844	2,905	32.3	7,253	5,812	24.8
Non-GAAP taxable equivalent net interest income	516,771	532,308	(2.9)	1,044,317	1,048,101	(0.4)
Less: income attributable to noncontrolling interests	5	16	(68.8)	26	27	(3.7)
Non-GAAP taxable equivalent net interest income, net of noncontrolling interests	516,766	532,292	(2.9)	1,044,291	1,048,074	(0.4)
Less: net interest income attributable to SVB Leerink	(3)	242	(101.2)	198	684	(71.1)
Non-GAAP taxable equivalent net interest income, net of noncontrolling interests and SVB Leerink	$ 516,769	$ 532,050	(2.9)	$ 1,044,093	$ 1,047,390	(0.3)
GAAP noninterest income	$ 368,848	$ 333,750	10.5	$ 670,782	$ 614,126	9.2
Less: (loss) income attributable to noncontrolling interests, including carried interest allocation	14,385	18,736	(23.2)	12,531	21,984	(43.0)
Non-GAAP noninterest income, net of noncontrolling interests	354,463	315,014	12.5	658,251	592,142	11.2
Less: non-GAAP net gains on investment securities, net of noncontrolling interests	20,540	29,100	(29.4)	68,130	54,692	24.6
Less: net gains on equity warrant assets	26,506	48,347	(45.2)	39,901	69,652	(42.7)
Less: investment banking revenue	141,503	48,694	190.6	188,370	98,489	91.3
Less: commissions	16,918	14,429	17.2	32,940	28,537	15.4
Non-GAAP noninterest income, net of noncontrolling interests and net of net gains on investment securities, net gains on equity warrant assets, investment banking revenue and commissions	$ 148,996	$ 174,444	(14.6)	$ 328,910	$ 340,772	(3.5)
GAAP total revenue	$ 881,775	$ 863,153	2.2	$ 1,707,846	$ 1,656,415	3.1
Non-GAAP taxable equivalent revenue, net of noncontrolling interests and SVB Leerink, net gains on investment securities, net gains on equity warrant assets, investment banking revenue and commissions	$ 665,765	$ 706,494	(5.8)	$ 1,373,003	$ 1,388,162	(1.1)
Operating efficiency ratio	54.39%	44.43%	22.4	51.48%	45.23%	13.8
Non-GAAP core operating efficiency ratio (1)	55.70	45.49	22.4	51.59	45.11	14.4

(1) The non-GAAP core operating efficiency ratio is calculated by dividing noninterest expense after adjusting for noninterest expense attributable to SVB Leerink by total revenue after adjusting for net interest income attributable to SVB Leerink, net gains or losses on investment securities and equity warrant assets, investment banking revenue and commissions. Additionally, noninterest expense and total revenue are adjusted for income or losses and expenses attributable to noncontrolling interests and adjustments to net interest income for a taxable equivalent basis.

Compensation and Benefits Expense

The following table provides a summary of our compensation and benefits expense for the three and six months ended June 30, 2020 and 2019:

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands, except employees)	**2020**	**2019**	**% Change**	**2020**	**2019**	**% Change**
Compensation and benefits:						
Salaries and wages	$ 124,525	$ 105,799	17.7%	$ 240,139	$ 206,999	16.0%
Incentive compensation plans	120,529	71,492	68.6	187,203	140,881	32.9
Other employee incentives and benefits (1)	74,743	65,881	13.5	148,041	133,353	11.0
Total compensation and benefits	$ 319,797	$ 243,172	31.5	$ 575,383	$ 481,233	19.6
Period-end full-time equivalent employees	3,984	3,314	20.2	3,984	3,314	20.2
Average full-time equivalent employees	3,855	3,287	17.3	3,764	3,257	15.6

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

Compensation and benefits expense was $319.8 million for the three months ended June 30, 2020, compared to $243.2 million for the comparable 2019 period. The key changes in factors affecting compensation and benefits expense were as follows:

- An increase of $18.7 million in salaries and wages reflective primarily of the increase in the number of average FTE to 3,855 for the second quarter of 2020 compared to 3,287 for the second quarter of 2019, as well as annual pay raises,
- An increase of $49.0 million in incentive compensation plans expense attributable primarily to an increase in SVB Leerink incentive compensation expense as a result of a strong second quarter performance as compared to the same period in 2019,
- An increase of $8.9 million in other employee incentives and benefits primarily driven by an increase in agency fees of $4.1 million and an increase of $3.5 million in share-based compensation expense due to the increased restricted stock awards granted during 2020.

Compensation and benefits expense was $575.4 million for the six months ended June 30, 2020, compared to $481.2 million for the comparable 2019 period. The key changes in factors affecting compensation and benefits expense were as follows:

- An increase of $33.1 million in salaries and wages reflective primarily of the increase in the number of average FTE to 3,764 for the six months ended June 30, 2020 from 3,257 for the six months ended June 30, 2019, as well as annual pay raises,
- An increase of $46.3 million in incentive compensation reflective primarily of the Leerink incentive compensation for the six months ended June 30, 2020, and
- An increase of $14.7 million in other employee incentives and benefits primarily driven by an increase in agency fees of $8.5 million and an increase of $7.6 million in share-based compensation expense due to the increased restricted stock awards granted during 2020.

Our variable compensation plans consist primarily of our Incentive Compensation Plan, Direct Drive Incentive Compensation Plan, Retention Program, Warrant Incentive Plan, Deferred Compensation Plan, 401(k) and ESOP Plan, SVB Leerink Incentive Compensation Plan and SVB Leerink Retention Award (see descriptions in our 2019 Form 10-K). Total costs incurred under these plans were $132.6 million and $217.8 million for the three and six months ended June 30, 2020 compared to $87.0 million and $174.6 million for the comparable 2019 periods. These amounts are included in total compensation and benefits expense discussed above.

We anticipate higher incentive compensation expenses in 2020, compared to 2019, primarily due to strong SVB Leerink performance, although this performance may be impacted by the effects of the COVID-19 pandemic during the second half of 2020.

Professional Services

Professional services expense was $63.8 million and $102.5 million for the three and six months ended June 30, 2020, compared to $40.8 million and $77.8 million for the comparable 2019 periods. The increases were primarily related to loan processing support for the PPP as well as our continued effort towards investments in our infrastructure, initiatives, and operating projects to support our presence both domestically and globally.

Premises and Equipment

Premises and equipment expense was $27.7 million and $54.6 million for the three and six months ended June 30, 2020, compared to $23.9 million and $45.6 million for the comparable 2019 periods. The increases were related to investments in projects, systems and technology to support our revenue growth and related initiatives as well as other operating costs.

Net Occupancy

Net occupancy expense was $18.8 million and $37.2 million for the three and six months ended June 30, 2020, compared to $16.7 million and $32.7 million for the comparable 2019 periods. The increases were primarily due to the expansion of certain offices to support our growth and lease renewals at higher costs, reflective of market conditions.

Business Development and Travel

Business development and travel expense was $3.0 million and $17.1 million for the three and six months ended June 30, 2020, compared to $17.0 million and $32.4 million for the comparable 2019 periods. The decreases were primarily due to the impact of COVID-19 on the global economy and our restrictions placed on domestic and international travel beginning March 2020. In light of the economic impact of COVID-19 and the continuing travel restrictions, we expect our business development and travel expense to be lower in 2020 than 2019.

FDIC and State Assessments

FDIC and state assessments expense was $6.8 million and $12.1 million for the three and six months ended June 30, 2020, compared to $4.5 million and $8.5 million for the comparable 2019 periods. The increases were due primarily to the increase in our average assets.

Other Noninterest Expense

Total other noninterest expense was $39.6 million and $80.4 million for the three and six months ended June 30, 2020, compared to $37.4 million and $71.0 million for the comparable 2019 periods. The increases were driven primarily by the increase in investment banking expenses due to the strong investment banking activity. A summary of other noninterest expense for the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands)	**2020**	**2019**	**% Change**	**2020**	**2019**	**% Change**
Lending and other client related processing costs	$ 6,803	$ 8,763	(22.4)%	$ 15,961	$ 13,940	14.5 %
Correspondent bank fees	3,833	3,569	7.4	7,819	7,313	6.9
Investment banking activities	7,768	3,869	100.8	10,798	8,054	34.1
Trade order execution costs	2,614	2,828	(7.6)	5,359	5,344	0.3
Data processing services	3,507	2,659	31.9	6,961	5,558	25.2
Telephone	1,889	2,422	(22.0)	4,116	5,163	(20.3)
Dues and publications	910	860	5.8	2,040	2,384	(14.4)
Postage and supplies	723	678	6.6	1,579	1,448	9.0
Other	11,600	11,769	(1.4)	25,717	21,749	18.2
Total other noninterest expense	$ 39,647	$ 37,417	6.0	$ 80,350	$ 70,953	13.2

Net Income Attributable to Noncontrolling Interests

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

In the table below, noninterest 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 income attributable to noncontrolling interests for the three and six months ended June 30, 2020 and 2019 is as follows:

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands)	**2020**	**2019**	**% Change**	**2020**	**2019**	**% Change**
Net interest income (1)	$ (5)	$ (16)	(68.8)%	$ (26)	$ (27)	(3.7)%
Noninterest income (1)	(5,904)	(12,406)	(52.4)	(3,413)	(14,676)	(76.7)
Noninterest expense (1)	130	168	(22.6)	270	547	(50.6)
Carried interest allocation (2)	(8,481)	(6,330)	34.0	(9,118)	(7,308)	24.8
Net income attributable to noncontrolling interests	$ (14,260)	$ (18,584)	(23.3)	$ (12,287)	$ (21,464)	(42.8)

NM Not meaningful
(1) Represents noncontrolling interests' share in net interest income, noninterest income or loss and noninterest expense.
(2) Represents the preferred allocation of income (or change in income) earned by us as the general partner of certain consolidated funds.

Three months ended June 30, 2020 and 2019

Net income attributable to noncontrolling interests was $14.3 million for the three months ended June 30, 2020, compared to net income of $18.6 million for the comparable 2019 period. Net income attributable to noncontrolling interests of $14.3 million for the three months ended June 30, 2020 was primarily driven by net gains on investments securities (including carried interest allocation) from our managed funds of funds and our managed direct venture funds portfolios reflective of the overall market performance during the second quarter of 2020. See "Results of Operations—Noninterest Income—Gains on Investment Securities, Net".

Six months ended June 30, 2020 and 2019

Net income attributable to noncontrolling interests was $12.3 million for the six months ended June 30, 2020, compared to net income of $21.5 million for the comparable 2019 period. Net income attributable to noncontrolling interests of $12.3 million for the six months ended June 30, 2020 was primarily a result of net gains on investment securities (including carried interest allocation) from our managed funds of funds and our managed direct funds portfolios related primarily to net unrealized valuation increases. See "Results of Operations—Noninterest Income—Gains on Investment Securities, Net".

Income Taxes

Our effective income tax rate was 27.3 percent and 27.1 percent for the three and six months ended June 30, 2020, as compared to 27.3 percent and 27.2 percent for the comparable 2019 periods. The effective tax rates are consistent year over year as tax adjustments impacting the effective tax rate have been proportional to changes in pre-tax income. 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 noncontrolling interests.

Operating Segment Results

We have four segments for which we report our financial information: Global Commercial Bank, SVB Private Bank, SVB Capital and SVB Leerink.

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 14 — "Segment Reporting" of the "Notes to Interim Consolidated Financial Statements (unaudited)" under Part I, Item 1 of this report for additional details.

The following is our reportable segment information for the three and six months ended June 30, 2020 and 2019:

Global Commercial Bank

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands)	2020	2019	% Change	2020	2019	% Change
Net interest income	$ 484,969	$ 461,752	5.0 %	$ 948,805	$ 907,628	4.5 %
Provision for credit losses	(43,456)	(18,295)	137.5	(237,867)	(45,100)	NM
Noninterest income	133,474	157,605	(15.3)	300,308	310,465	(3.3)
Noninterest expense	(241,343)	(206,902)	16.6	(466,198)	(404,147)	15.4
Income before income tax expense	$ 333,644	$ 394,160	(15.4)	$ 545,048	$ 768,846	(29.1)
Total average loans, amortized cost	$ 30,472,414	$ 25,724,704	18.5	$ 29,804,949	$ 25,264,010	18.0
Total average assets	67,936,486	53,965,699	25.9	64,870,536	52,068,609	24.6
Total average deposits	65,090,982	51,126,806	27.3	62,153,426	49,371,589	25.9

NM—Not meaningful

Three months ended June 30, 2020 and 2019

Income before income tax expense from our Global Commercial Bank (“GCB”) decreased to $333.6 million for the three months ended June 30, 2020, compared to $394.2 million for the comparable 2019 period. The key components of GCB's performance for the three months ended June 30, 2020 compared to the comparable 2019 period are discussed below.

Net interest income from GCB increased by $23.2 million for the three months ended June 30, 2020, due primarily to an increase in loan interest income resulting mainly from higher average loan balances.

GCB had a provision for credit losses of $43.5 million for the three months ended June 30, 2020, compared to $18.3 million for the comparable 2019 period. The provision of $43.5 million for the three months ended June 30, 2020 was driven primarily by $26.2 million in additional reserves for our performing loans based on our forecast models of the current economic environment under the CECL methodology adopted January 1, 2020, $22.0 million for net new nonaccrual loans and $10.5 million for charge-offs not specifically reserved for at March 31, 2020, partially offset by a $10.1 million decrease related to changes in loan composition within our portfolio segments and $4.1 million of recoveries.

The provision of $18.3 million for the three months ended June 30, 2019 primarily reflects an increase of $7.5 million for our performing loans, $10.9 million for net new nonaccrual loans, $7.3 million for charge-offs not specifically reserved for and $3.2 million in additional reserves for period-end loan growth, partially offset by recoveries of $9.8 million.

Noninterest income decreased by $24.1 million for the three months ended June 30, 2020 related primarily to an overall decrease in our non-GAAP core fee income (lower client investment fees, credit card fees and foreign exchange fees). These decreases were due primarily to the impact of the federal rate cuts on yield rates affecting client investment fees as well as a decrease in transactional volume for credit cards and foreign exchanges.

Noninterest expense increased by $34.4 million for the three months ended June 30, 2020, due primarily to compensation and benefits expense and professional services expense. Compensation and benefits expense increased $22.3 million as a result of higher salaries and wages expenses. The increase in GCB salaries and wages was due primarily to an increase in the average number of FTEs at GCB, which increased to 2,822 FTEs for the three months ended June 30, 2020, from 2,261 FTEs for the comparable 2019 period. Professional services expense increased due to higher expenses primarily related to loan processing support for the PPP as well as our continued effort towards investments in our infrastructure, initiatives and operating projects to support our presence both domestically and globally.

Six Months Ended June 30, 2020 and 2019

Net interest income from our GCB increased by $41.2 million for the six months ended June 30, 2020, due primarily to an increase in loan interest income resulting mainly from higher average loan balances, partially offset by a decrease in loan yields as a result of rate decreases.

GCB had a provision for credit losses of $237.9 million for the six months ended June 30, 2020, compared to a provision of $45.1 million for the comparable 2019 period. The provision of $237.9 million for the six months ended June 30, 2020 was reflective primarily of $166.6 million in additional reserves for our performing loans based on our forecast models of the current

economic environment under the CECL methodology adopted January 1, 2020, including the impact of the COVID-19 pandemic, as well as changes in loan composition within our portfolio segments, $27.3 million in additional reserves for period-end loan growth, $23.6 million for charge-offs not specifically reserved for at December 31, 2019 and $32.9 million in net new nonaccrual loans, partially offset by $11.8 million of recoveries.

The provision of $45.1 million for the six months ended June 30, 2019 was reflective primarily of $38.4 million in net new specific reserves for nonaccrual loans, $12.2 million for charge-offs not specifically reserved for in prior quarters, $7.3 million for period-end loan growth, partially offset by recoveries of $11.2 million.

Noninterest income decreased by $10.2 million for the six months ended June 30, 2020, related primarily to an overall decrease in our non-GAAP core fee income (lower client investment fees and credit card fees partially offset by an increase in foreign exchange fees). The decreases were due primarily to the impact of the federal rate cuts on yield rates affecting client investment fees as well as a decrease in transactional volume on credit cards. The increase in foreign exchange fees was due primarily to the continued growth of our client base and work with larger global companies

Noninterest expense increased by $62.1 million for the six months ended June 30, 2020, due primarily to increased expenses for compensation and benefits expense, professional services expense and other noninterest expense. Compensation and benefits expense increased by $36.7 million primarily as a result of increased salaries and wages. The increase in GCB salaries and wages was due primarily to an increase in the average number of FTEs at GCB, which increased to 2,757 FTEs for the six months ended June 30, 2020 from 2,242 FTEs for the comparable 2019 period. Professional services expense increased $18.6 million due to higher expenses primarily related to loan processing support for the PPP as well as our continued effort towards investments in our infrastructure, initiatives and operating projects to support our presence both domestically and globally.

SVB Private Bank

	Three months ended June 30,			Six months ended June 30,		
(Dollars in thousands)	**2020**	**2019**	**% Change**	**2020**	**2019**	**% Change**
Net interest income	$ 18,644	$ 12,277	51.9 %	$ 33,808	$ 24,258	39.4%
(Provision for) reduction of credit losses	(4,585)	(853)	NM	(59,075)	131	NM
Noninterest income	670	686	(2.3)	1,570	1,196	31.3
Noninterest expense	(10,164)	(9,526)	6.7	(20,254)	(18,378)	10.2
Income (loss) before income tax expense	$ 4,565	$ 2,584	76.7	$ (43,951)	$ 7,207	NM
Total average loans, amortized cost	$ 4,035,940	$ 3,217,597	25.4	$ 3,946,709	$ 3,152,104	25.2
Total average assets	4,071,648	3,247,557	25.4	3,982,024	3,179,064	25.3
Total average deposits	2,119,983	1,394,905	52.0	2,021,323	1,442,803	40.1

NM—Not meaningful

Three months ended June 30, 2020 and 2019

Net interest income from our SVB Private Bank increased by $6.4 million for the three months ended June 30, 2020, due primarily to the increase in average loans for the three months ended June 30, 2020 as compared to the 2019 comparable period, partially offset by decreases in loan yields as a result of overall market rate decreases.

The provision for credit losses increased by $3.7 million for the three months ended June 30, 2020, due primarily to loan growth.

Six Months Ended June 30, 2020 and 2019

Net interest income from our SVB Private Bank increased by $9.6 million for the six months ended June 30, 2020, due primarily to the increase in average loans for the six months ended June 30, 2020 as compared to the 2019 comparable period, partially offset by decreases in loan yields as a result of overall market rate decreases.

The provision for credit losses increased by $59.2 million for the six months ended June 30, 2020, due primarily to a $50.3 million increase in additional reserves for our performing loans. The increase for our performing loans is reflective of the increases in reserves required for longer duration mortgage loans as well as the additional reserves for our performing loans based on our forecast models of the current economic environment under the CECL methodology adopted January 1, 2020, including the impact of the COVID-19 pandemic.

SVB Capital

(Dollars in thousands)	Three months ended June 30, 2020	2019	% Change	Six months ended June 30, 2020	2019	% Change
Net interest income	$ 5	$ 6	(16.7)%	$ 26	$ 12	116.7 %
Noninterest income	21,450	40,059	(46.5)	26,368	64,904	(59.4)
Noninterest expense	(8,256)	(7,883)	4.7	(16,842)	(13,665)	23.2
Income before income tax expense	$ 13,199	$ 32,182	(59.0)	$ 9,552	$ 51,251	(81.4)
Total average assets	$ 430,272	$ 373,167	15.3	$ 438,737	$ 375,934	16.7

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 noncontrolling interests.

We experience variability in the performance of SVB Capital from quarter to quarter 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. The performance of these securities has been, and may further be, impacted by the effects of the COVID-19 pandemic.

Three months ended June 30, 2020 and 2019

SVB Capital had noninterest income of $21.5 million for the three months ended June 30, 2020, compared to $40.1 million for the comparable 2019 period. The decrease in noninterest income was due primarily to a decrease in net gains on investment securities for the three months ended June 30, 2020, compared to net gains for the comparable 2019 period. SVB Capital's components of noninterest income primarily include the following:

- Net gains on investment securities of $12.1 million for the three months ended June 30, 2020, compared to net gains of $27.9 million for the comparable 2019 period. The net gains on investment securities of $12.1 million were primarily driven by unrealized net valuation increases from private company investments held in our strategic venture capital funds as well as in our managed funds of funds portfolio.

Six Months Ended June 30, 2020 and 2019

SVB Capital had noninterest income of $26.4 million for the six months ended June 30, 2020, compared to $64.9 million for the comparable 2019 period. The decrease in noninterest income was due primarily to a decrease in net gains on investment securities for the six months ended June 30, 2020, compared to the comparable 2019 period. SVB Capital's components of noninterest income primarily include the following:

- Net gains on investment securities of $6.3 million for the six months ended June 30, 2020, compared to net gains of $44.0 million for the comparable 2019 period. The net gains on investment securities of $6.3 million were primarily driven by a downward valuation adjustment for illiquid investments held in the private managed funds and companies of our portfolios due to the current market volatility. The downward valuation adjustment was offset by unrealized net valuation increases from private company investments held in our strategic venture capital funds as well as in our managed funds of funds portfolio.

SVB Leerink

(Dollars in thousands)	Three months ended June 30, 2020	2019	% Change	Six months ended June 30, 2020	2019	% Change
Net interest (loss) income	$ (3)	$ 242	(101.2)%	$ 198	$ 684	(71.1)%
Noninterest income	163,817	67,000	144.5	226,494	135,117	67.6
Noninterest expense	(108,650)	(61,935)	75.4	(170,687)	(122,475)	39.4
Income before income tax expense	$ 55,164	$ 5,307	NM	$ 56,005	$ 13,326	NM
Total average assets	$ 454,603	$ 410,279	10.8	$ 469,126	$ 355,609	31.9

NM—Not meaningful

SVB Leerink's 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 noncontrolling interests.

Three months ended June 30, 2020 and 2019

SVB Leerink had noninterest income of $163.8 million for the three months ended June 30, 2020 compared to $67.0 million for the comparable 2019 period. The $96.8 million increase in noninterest income was primarily due to a $92.8 million increase in investment banking revenues attributable to higher levels of funding activity in the life science/healthcare secondary markets and by the increase in public equity underwriting fees.

SVB Leerink had noninterest expense of $108.7 million for the three months ended June 30, 2020 compared to $61.9 million for the comparable 2019 period. The $46.7 million increase in noninterest expense was primarily driven by an increase of $47.0 million in compensation and benefit expense due to an increase in salaries and wages reflective of merit increases as well as an increase in share-based compensation.

Six Months Ended June 30, 2020 and 2019

SVB Leerink had noninterest income of $226.5 million for the six months ended June 30, 2020, compared to $135.1 million for the comparable 2019 period. The $91.4 million increase was primarily driven by a $89.9 million increase investment banking revenues attributable to higher levels of funding activity in the life science/healthcare secondary markets and by the increase in public equity underwriting fees.

SVB Leerink had noninterest expense of $170.7 million for the six months ended June 30, 2020, compared to $122.5 million for the comparable 2019 period. The $48.2 million increase was primarily driven by an increase of $50.6 million in compensation and benefit expense due to an increase in salaries and wages reflective of merit increases as well as an increase in share-based compensation, partially offset by a $1.9 million decrease in business travel expense due to the impact of travel restrictions put in place in response to the COVID-19 pandemic towards the end of the first quarter of 2020.

Consolidated Financial Condition

Our total assets, and total liabilities and stockholders' equity, were $85.7 billion at June 30, 2020 compared to $71.0 billion at December 31, 2019, an increase of $14.7 billion, or 20.7 percent. 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 $14.2 billion at June 30, 2020, an increase of $7.4 billion, or 109.4 percent, compared to $6.8 billion at December 31, 2019. The increase was driven by the significant growth in deposits of $12.7 billion. We have also raised our cash target level to between $7.0 billion and $9.0 billion in response to the current economic environment. As of June 30, 2020, $11.0 billion of our cash and due from banks was deposited at the Federal Reserve Bank and was earning interest at the Federal Funds target rate and interest-earning deposits in other financial institutions were $2.0 billion. As of December 31, 2019, $3.7 billion of our cash and due from banks was deposited at the Federal Reserve Bank and was earning interest at the Federal Funds target rate and interest-earning deposits in other financial institutions were $2.1 billion.

Investment Securities

Investment securities totaled $32.6 billion at June 30, 2020, an increase of $3.5 billion, or 12.1 percent, compared to $29.1 billion at December 31, 2019. Our investment securities portfolio is comprised of: (i) an available-for-sale securities portfolio and a held-to-maturity securities portfolio, both of which represent interest earning fixed income investment securities; and (ii) a non-marketable and other equity securities portfolio, which represents primarily 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 valuations of our nonmarketable and other equity securities were negatively impacted by COVID-19 market conditions towards the end of the first quarter. We expect continued pressure on the valuation of our nonmarketable and other equity securities in 2020 as we anticipate public markets to continue to fluctuate, as well as a slowdown in IPO, M&A and other private market activities, due to the COVID-19 pandemic.

Available-for-Sale Securities

Period-end available-for-sale securities were $18.5 billion at June 30, 2020 compared to $14.0 billion at December 31, 2019, an increase of $4.5 billion, or 31.7 percent. The $4.5 billion increase in period-end AFS securities balances from December 31, 2019 to June 30, 2020, was primarily driven by the purchase of $8.1 billion of securities and a $0.5 billion increase in our AFS portfolio reflective of the 150 basis point decrease in Federal Funds interest rates, partially offset by the sale of $2.6 billion of securities and $1.5 billion of portfolio cash flows. Securities classified as available-for-sale are carried at fair value with changes in fair value recorded as unrealized gains or losses in a separate component of stockholders' equity.

The following table summarizes the remaining contractual principal maturities and fully taxable equivalent yields on fixed income securities, carried at fair value, classified as available-for-sale as of June 30, 2020. The weighted average yield is computed using the amortized cost of fixed income investment securities, which are reported at fair value. 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 mortgage-backed securities may differ significantly from their contractual maturities because mortgage borrowers have the right to prepay outstanding loan obligations with or without penalties. Mortgage-backed securities classified as available-for-sale 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 weighted average yield on mortgage-backed securities is based on prepayment assumptions at the purchase date. Actual yields earned may differ significantly based upon actual prepayments.

	June 30, 2020									
	Total		One Year or Less		After One Year to Five Years		After Five Years to Ten Years		After Ten Years	
(Dollars in thousands)	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	$ 4,535,235	1.87 %	$ 85,518	1.57 %	$2,613,342	1.84%	$1,836,375	1.94%	$ —	—%
U.S. agency debentures	102,659	2.28	—	—	—	—	102,659	2.28	—	—
Foreign government debt securities	22,525	(0.82)	22,525	(0.82)	—	—	—	—	—	—
Residential mortgage-backed securities:										
Agency-issued mortgage-backed securities	7,655,556	2.13	—	—	—	—	—	—	7,655,556	2.13
Agency-issued collateralized mortgage obligations —fixed rate	2,979,540	1.74	—	—	491	3.26	—	—	2,979,049	1.74
Agency-issued commercial mortgage-backed securities	3,156,398	2.00	—	—	—	—	1,347,235	1.86	1,809,163	2.11
Total	$18,451,913	1.98	$ 108,043	1.07	$2,613,833	1.84	$3,286,269	1.91	$12,443,768	2.04

Held-to-Maturity Securities

Period-end held-to-maturity securities were $12.9 billion at June 30, 2020 compared to $13.8 billion at December 31, 2019, a decrease of $0.9 billion, or 7.1 percent. The $0.9 billion decrease in period-end HTM security balances from December 31, 2019 to June 30, 2020 was due primarily to pay downs and maturities of $1.5 billion, partially offset by the purchase of $0.6 billion of securities.

Securities classified as held-to-maturity are accounted for at cost with no adjustments for changes in fair value. For securities previously re-designated as held-to-maturity from available-for-sale, the net unrealized gains 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 and fully taxable equivalent yields on fixed income investment securities classified as held-to-maturity as of June 30, 2020. 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 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 mortgage-backed securities may differ significantly from their contractual maturities because mortgage borrowers have the right to prepay outstanding loan obligations with or without penalties. Mortgage-backed securities classified as held-to-maturity 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 weighted average yield on mortgage-backed securities is based on prepayment assumptions at the purchase date. Actual yields earned may differ significantly based upon actual prepayments.

	June 30, 2020									
	Total		One Year or Less		After One Year to Five Years		After Five Years to Ten Years		After Ten Years	
(Dollars in thousands)	Amortized Cost	Weighted-Average Yield	Amortized Cost	Weighted-Average Yield	Amortized Cost	Weighted-Average Yield	Amortized Cost	Weighted-Average Yield	Amortized Cost	Weighted-Average Yield
U.S. agency debentures	$ 453,280	2.62%	$ 2,622	4.07%	$ 142,917	2.52%	$ 307,741	2.69%	$ —	—%
Residential mortgage-backed securities:										
Agency-issued mortgage-backed securities	6,086,154	2.88	8,369	2.68	40,337	1.89	640,876	2.47	5,396,572	2.94
Agency-issued collateralized mortgage obligations—fixed rate	1,518,848	1.69	—	—	—	—	612,478	1.62	906,370	1.74
Agency-issued collateralized mortgage obligations—variable rate	162,250	0.75	—	—	—	—	—	—	162,250	0.75
Agency-issued commercial mortgage-backed securities	2,484,072	3.06	—	—	—	—	102,497	3.56	2,381,575	3.04
Municipal bonds and notes	2,154,441	3.54	31,814	2.22	142,152	2.66	479,079	3.11	1,501,396	3.79
Total	$12,859,045	2.85	$ 42,805	2.43	$ 325,406	2.50	$2,142,671	2.46	$10,348,163	2.95

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 3.4 years and 3.9 years at June 30, 2020 and December 31, 2019, respectively.

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 Silicon Valley Bank Co., Ltd. (the Bank's joint venture bank in China ("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 noncontrolling interests. 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.

Period-end non-marketable and other equity securities were $1.3 billion at June 30, 2020 compared to $1.2 billion at December 31, 2019, an increase of $56.7 million, or 4.7 percent. Non-marketable and other equity securities, net of noncontrolling interests were $1.1 billion at June 30, 2020 and December 31, 2019, respectively. The increase in period end non-marketable and other equity securities of $0.1 billion was primarily attributable to new investments within our qualified housing projects portfolio and further investment in SPD Silicon Valley Bank Co., Ltd (the Bank's joint venture bank in China) partially offset by distributions from our consolidated and unconsolidated venture capital and private equity funds investments. 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 June 30, 2020 and December 31, 2019:

	June 30, 2020		December 31, 2019	
(Dollars in thousands)	Carrying value (as reported)	Amount attributable to SVBFG	Carrying value (as reported)	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)	$ 68,214	$ 17,433	$ 87,180	$ 22,482
Unconsolidated venture capital and private equity fund investments (2)	145,122	145,122	178,217	178,217
Other investments without a readily determinable fair value (3)	56,206	56,205	55,255	55,255
Other equity securities in public companies (fair value accounting (4)	45,288	43,493	59,200	59,056
Non-marketable securities (equity method accounting) (5):				
Venture capital and private equity fund investments	233,996	139,628	215,367	131,403
Debt funds	7,004	7,004	7,271	7,271
Other investments	181,543	181,543	152,863	152,863
Investments in qualified affordable housing projects, net	533,205	533,205	458,476	458,476
Total non-marketable and other equity securities	$ 1,270,578	$ 1,123,633	$ 1,213,829	$ 1,065,023

(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 June 30, 2020 and December 31, 2019:

	June 30, 2020		December 31, 2019	
(Dollars in thousands)	Carrying value (as reported)	Amount attributable to SVBFG	Carrying value (as reported)	Amount attributable to SVBFG
Strategic Investors Fund, LP	$ 4,414	$ 555	$ 5,729	$ 720
Capital Preferred Return Fund, LP	36,890	7,950	45,341	9,772
Growth Partners, LP	26,776	8,914	35,976	11,976
CP I, LP	134	14	134	14
Total consolidated venture capital and private equity fund investments	$ 68,214	$ 17,433	$ 87,180	$ 22,482

(2) The carrying value represents investments in 191 and 205 funds (primarily venture capital funds) at June 30, 2020 and December 31, 2019, 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, March 31st, for our June 30th 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 6 — "Investment Securities" of the "Notes to Interim Consolidated Financial Statements (unaudited)" under Part I, Item 1 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 June 30, 2020 and December 31, 2019 (equity method accounting):

	June 30, 2020		December 31, 2019	
(Dollars in thousands)	Carrying value (as reported)	Amount attributable to SVBFG	Carrying value (as reported)	Amount attributable to SVBFG
Venture capital and private equity fund investments:				
Strategic Investors Fund II, LP	$ 3,083	$ 2,875	$ 3,612	$ 3,387
Strategic Investors Fund III, LP	14,211	11,518	15,668	12,701
Strategic Investors Fund IV, LP	24,743	20,842	27,064	22,780
Strategic Investors Fund V, LP	47,734	25,060	46,830	24,586
CP II, LP (i)	4,646	2,798	5,907	3,567
Other venture capital and private equity fund investments	139,579	76,535	116,286	64,382
Total venture capital and private equity fund investments	$ 233,996	$ 139,628	$ 215,367	$ 131,403
Debt funds:				
Gold Hill Capital 2008, LP (ii)	$ 5,334	$ 5,334	$ 5,525	$ 5,525
Other debt funds	1,670	1,670	1,746	1,746
Total debt funds	$ 7,004	$ 7,004	$ 7,271	$ 7,271
Other investments:				
SPD Silicon Valley Bank Co., Ltd.	$ 105,863	$ 105,863	$ 74,190	$ 74,190
Other investments	75,680	75,680	78,673	78,673
Total other investments	$ 181,543	$ 181,543	$ 152,863	$ 152,863

(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.

On June 6, 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. The Company must sell, divest,

restructure or otherwise conform such investments to the provisions of the Volcker Rule by the earlier of (i) July 21, 2022, or (ii) the date by which each fund matures by its terms or is otherwise conformed to the Volcker Rule.

On June 25, 2020, the Federal Reserve and other agencies finalized revisions to the regulations implementing the Volcker Rule ("2020 Volcker Amendments"), which will become effective on October 1, 2020. Among other things, the 2020 Volcker Amendments adopt new exclusions from the definition of "covered fund" for venture capital funds and credit funds that meet certain criteria. We believe that, effective October 1, 2020, certain venture capital and credit funds in which we have investments will qualify for these new exclusions, and, as a result, we will not be required to sell or otherwise conform such portion of our "illiquid" fund holdings that are subject to the extension from the Federal Reserve as discussed above. We are continuing to assess the impact of the 2020 Volcker Amendments on the Company's existing fund investments and our future funds business.

As of June 30, 2020, such investments had an estimated aggregate carrying value and fair value of approximately $211 million. (For more information about the Volcker Rule, see "Business—Supervision and Regulation" under Part 1, Item 1 of our 2019 Form 10-K.)

Loans

Loans, amortized cost basis, increased by $3.4 billion to $36.7 billion at June 30, 2020, compared to $33.2 billion at December 31, 2019. Unearned income was $220 million at June 30, 2020 and $163 million at December 31, 2019. Period-end loans increased compared to December 31, 2019, driven primarily by our SBA, Investor Dependent and Balance Sheet Dependent loan portfolios. The increase in portfolios was primarily driven by participation in the Paycheck Protection Program and increased credit line utilization. Our Investor Dependent and Balance Sheet Dependent loan portfolios are primarily made up of our technology and life sciences/healthcare clients.

The breakdown of total loans and loans as a percentage of total loans by risk-based segment is as follows:

	June 30, 2020		December 31, 2019	
(Dollars in thousands)	**Amount**	**Percentage**	**Amount**	**Percentage**
Private equity/venture capital	$ 17,901,117	48.7%	$ 17,712,797	53.1%
Investor dependent:				
Early stage	1,797,576	4.9	1,653,425	5.0
Mid stage	1,435,772	3.9	1,066,783	3.2
Later stage	1,905,528	5.2	1,698,676	5.1
Total investor dependent	5,138,876	14.0	4,418,884	13.3
Cash flow dependent:				
Sponsor led buyout	2,057,439	5.6	2,203,020	6.6
Other	2,787,807	7.6	2,252,847	6.8
Total cash flow dependent	4,845,246	13.2	4,455,867	13.4
Private bank	3,816,277	10.4	3,489,219	10.4
Balance sheet dependent	1,693,071	4.6	1,297,304	3.9
Premium wine	1,039,456	2.8	1,063,512	3.2
Other	457,234	1.3	890,121	2.7
SBA loans	1,835,945	5.0	—	—
Total loans (1)	$ 36,727,222	100.0	$ 33,327,704	100.0

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.

Loan Concentration

The following table provides a summary of total loans by size and risk-based segment. The breakout below is based on total client balances (individually or in the aggregate) as of June 30, 2020 to any single client:

	June 30, 2020					
(Dollars in thousands)	**Less than Five Million**	**Five to Ten Million**	**Ten to Twenty Million**	**Twenty to Thirty Million**	**Thirty Million or More**	**Total**
Private equity/venture capital	$ 1,069,179	$ 1,284,736	$ 2,427,604	$ 1,830,511	$ 11,297,045	$ 17,909,075
Investor dependent:						
Early stage	2,156,040	321,585	122,008	29,150	114,919	2,743,702
Mid stage	814,360	512,861	199,537	122,545	94,770	1,744,073
Later stage	195,014	446,575	754,682	272,984	315,484	1,984,739
Total investor dependent	3,165,414	1,281,021	1,076,227	424,679	525,173	6,472,514
Cash flow dependent:						
Sponsor led buyout	12,892	62,777	480,219	674,082	837,197	2,067,167
Other	368,504	310,756	571,255	733,571	1,200,345	3,184,431
Total cash flow dependent	381,396	373,533	1,051,474	1,407,653	2,037,542	5,251,598
Private bank	3,034,081	405,009	213,509	51,387	112,527	3,816,513
Balance sheet dependent	222,058	379,156	390,410	279,684	470,059	1,741,367
Premium wine	254,698	240,736	329,758	95,536	146,973	1,067,701
Other	158,091	46,590	138,818	55,143	69,812	468,454
Total loans (1) (2)	$ 8,284,917	$ 4,010,781	$ 5,627,800	$ 4,144,593	$ 14,659,131	$ 36,727,222

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.

(2) Included in total loans at amortized cost is approximately $1.8 billion in PPP loans. The PPP loans consist of loans from all risk-based segments.

At June 30, 2020, loans equal to or greater than $20 million to any single client (individually or in the aggregate) totaled $18.8 billion, or 51.2 percent of our total loan portfolio. These loans represented 425 clients, and of these loans, $21.7 million were on nonaccrual status as of June 30, 2020.

The following table provides a summary of loans by size and risk-based segment. The breakout below is based on total client balances (individually or in the aggregate) as of December 31, 2019:

	December 31, 2019					
(Dollars in thousands)	Less than Five Million	Five to Ten Million	Ten to Twenty Million	Twenty to Thirty Million	Thirty Million or More	Total
Private equity/venture capital	$ 1,016,051	$ 1,082,201	$ 2,559,384	$ 2,029,547	$ 11,025,614	$ 17,712,797
Investor dependent						
Early stage	1,090,852	260,685	191,661	76,542	33,685	1,653,425
Mid stage	544,167	316,617	156,418	49,581	—	1,066,783
Later stage	167,500	348,832	648,382	304,373	229,589	1,698,676
Total investor dependent	1,802,519	926,134	996,461	430,496	263,274	4,418,884
Cash flow dependent						
Sponsor led buyout	16,034	97,458	550,753	723,737	815,038	2,203,020
Other	206,209	86,929	465,304	463,073	1,031,332	2,252,847
Total cash flow dependent	222,243	184,387	1,016,057	1,186,810	1,846,370	4,455,867
Private bank	2,791,587	359,429	191,979	49,996	96,228	3,489,219
Balance sheet dependent	256,247	269,744	404,356	78,197	288,760	1,297,304
Premium wine	243,094	267,389	261,951	148,469	142,609	1,063,512
Other	526,850	40,511	106,247	112,764	103,749	890,121
Total loans (1)	$ 6,858,591	$ 3,129,795	$ 5,536,435	$ 4,036,279	$ 13,766,604	$ 33,327,704

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.

At December 31, 2019, loans equal to or greater than $20 million to any single client (individually or in the aggregate) totaled $17.8 billion, or 53.4 percent of our total loan portfolio. These loans represented 397 clients, and of these loans, $37.3 million were on nonaccrual status as of December 31, 2019.

Our three main market segments include (i) technology (software/internet and hardware) and life science/healthcare, (ii) private equity/venture capital, and (iii) SVB Private Bank.

(i) 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 and represent the largest segments of our loan portfolio. The primary underwriting method for our technology and life science/healthcare portfolios are classified as investor dependent, balance sheet dependent or cash flow dependent.

Investor dependent loans represent a relatively small percentage of our overall portfolio at 14 percent of total loans at June 30, 2020 and 13 percent at December 31, 2019. These loans are made to companies in both our Accelerator (early-stage) and Growth practices (mid-stage and later-stage).

Balance sheet dependent loans, which include asset-based loans, represented five percent of total loans at June 30, 2020 and four percent at December 31, 2019. Working capital lines and accounts receivable financing, both part of our asset-based lending, represented one percent of total loans each, respectively, at June 30, 2020 and two percent and one percent of total loans, respectively, at December 31, 2019.

Cash flow dependent loans, which include sponsor led buyout lending, represented 13 percent of total loans at both June 30, 2020 and December 31, 2019. Sponsor led buyout loans represented six percent of total loans at June 30, 2020, compared to seven percent at December 31, 2019.

(ii) Private Equity/Venture Capital

We also provide financial services to clients in the private equity/venture capital community. Our lending to private equity/venture capital firms and funds represented 49 percent of total loans at June 30, 2020 and 53 percent at December 31, 2019. 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 often secured by an assignment of the general partner's right to call capital from the fund's limited partner investors.

(iii) SVB Private Bank

Our SVB Private Bank clients are primarily private equity/venture capital professionals and senior executives of the innovation companies they support. Our lending to SVB Private Bank clients represented 10 percent of total loans at both June 30, 2020 and December 31, 2019. Many of these clients have mortgages, which represented 85 percent of this portfolio at June 30, 2020; the balance of this portfolio consisted of home equity lines of credit, restricted stock purchase loans, capital call lines of credit and other secured and unsecured lending. In addition, we provide real estate secured loans to eligible employees through our Employee Home Ownership Program.

We expect lending activity in 2020, to be impacted by strong borrowing from technology and life science/healthcare companies looking to bolster their liquidity positions, particularly during the first half of the year, followed by more muted borrowing, as well as prepayment or reduced utilization of capital call lines of credit by private equity/venture capital firms due to a slowdown in investment activities.

Paycheck Protection Program

Beginning in April 2020, we accepted applications under the PPP administered by the Small Business Association (“SBA”) under the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") and originated loans to qualified small businesses. Under the terms of the program, loans funded through the PPP are eligible to be forgiven if certain requirements are met, including using the funds for certain costs relating to payroll, healthcare and qualifying mortgage interest, rent and utility payments. To the extent not forgiven, loans are subject to certain terms including, among others, the following: maximum two-year term for loans issued before June 5, 2020 (unless borrower and lender agree otherwise); a maximum five-year term for loans issued on or after June 5, 2020; an interest rate of 1.0%; deferral of loan payments until a loan forgiveness decision is rendered or until 10 months after the end of a borrower’s forgiveness covered period; and no requirement for any collateral or personal guarantees. PPP borrowers are not required to pay any fees to the government or the lender, and the loans may be repaid by the borrower at any time. The SBA, however, will pay lenders a processing fee based on the size of the PPP loan, ranging from 1% to 5% of the loan.

As of June 30, 2020, we have over 4,400 outstanding PPP loans in the amount of $1.8 billion, as approved by the SBA. This funded amount reflects repayments received as of such date.

Additionally, we announced in April 2020 that we intend to donate any processing fees we receive from the SBA, net of our costs incurred, to charitable relief efforts relating to COVID-19. Forgiveness of PPP loans is expected to begin in the third or fourth quarter of 2020 which will impact the timing of PPP donation (because lender fees are received upon forgiveness).

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. These programs included relief for venture-backed, private bank and wine borrowers who met certain criteria. The three programs are outlined below:

- **Venture debt**: The venture debt relief program was offered to eligible borrowers during the month of April 2020. The program defers principal payments for six-months or, if the loan is in an interest-only period, extends the interest-only period for six-months. Interest continues to be accrued and billed. The maturity dates on the loans are extended and principal payments resume based on original payment schedules. Clients with investor dependent commercial term loans that were fully funded as of March 31, 2020, and with an aggregate commitment of less than or equal to $10 million, were eligible for the program. As of June 30, 2020, loans modified under this program had outstanding balances of $2.1 billion. This amount reflects repayments received as of June 30, 2020.
- **Private Bank:** The Private Bank relief program was offered to eligible borrowers beginning April 1, 2020, through June 30, 2020. The program defers principal and interest payments for the lesser of three months or the remaining loan period. The maturity date of the loans is not extended, and deferred interest is not capitalized into principal but added to final payment upon maturity. The principal balance continues to accrue interest during the deferral period. Clients who were current, less than 30 days past due, as of March 31, 2020, were eligible for the program. As of June 30, 2020, loans modified under this program had outstanding balances of $204.3 million. This amount reflects repayments received as of June 30, 2020.
- **Wine:** The wine relief program was offered to eligible borrowers during the month of April 2020. Depending on the loan structure, principal and interest payments are deferred for three months or principal is deferred for six months. Interest

continues to be accrued during the deferral period. Maturity dates are not extended, resulting in a larger final payment at maturity. All wine borrowers were eligible to participate in the program. As of June 30, 2020, loans modified under this program had outstanding balances of $594.9 million. This amount reflects repayments received as of June 30, 2020.

For loans modified under these programs, in accordance with the provisions of Section 4013 of the CARES Act, we elected to not apply troubled debt restructuring classification to borrowers who were current as of December 31, 2019. In addition, for loans modified under these programs 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 assume that borrowers are not experiencing financial difficulty if loan modifications a) are performed in response to the COVID-19 pandemic, b) provide loan payment deferrals that are up to six months in duration and c) 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 do not expect to defer interest income recognition during periods of payment deferral, nor do we expect any qualifying modification to trigger nonaccrual status. The effectiveness of our programs is uncertain considering the unknown duration and impact of the COVID-19 pandemic.

State Concentrations

Approximately 28 percent of our outstanding total loan balances as of June 30, 2020 were to borrowers based in California compared to 27 percent as of December 31, 2019. Additionally, as of June 30, 2020, borrowers in New York and Massachusetts increased to 11 percent of our outstanding total loan balances each as of June 30, 2020, compared to nine percent each as of December 31, 2019. Other than California, New York and Massachusetts, as of June 30, 2020, there are no states with loan balances greater than or equal to 10 percent.

See generally “Risk Factors–Credit Risks” set forth under Part I, Item 1A in our 2019 Form 10-K and "Risk Factors" under Part II, Item 1A of this report.

Credit Quality Indicators

As of June 30, 2020 and December 31, 2019, our total criticized loans and nonaccrual loans represented four and three percent of our total loans, respectively. Criticized and nonaccrual loans to early-stage clients represented 16 and 23 percent of our total criticized and nonaccrual loan balances at June 30, 2020 and December 31, 2019, respectively. Loans to early-stage clients represent a relatively small percentage of our overall portfolio at five percent of total loans at both June 30, 2020 and December 31, 2019. 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.

More specifically, given the economic environment in light of the COVID-19 pandemic, we are closely monitoring our loan portfolio. Notwithstanding the increase of our allowance for credit losses in the first quarter which was largely attributable to longer duration mortgage loans based on our forecast models, we currently expect particularly for 2020 continued strong credit performance for our Private Bank and private equity/venture portfolios, consistent with the historic low credit losses we have typically experienced. However, we expect that our technology, life science/healthcare and premium wine portfolios will be likelier to be impacted negatively by the challenging economic environment in 2020. Particular areas of credit focus include: early-stage companies; Sponsor Finance clients; consumer internet and advertising technology clients; life science/healthcare companies that require clinical trials or provide elective services; and wine clients who are dependent on tasting room or restaurant sales.

Credit Quality and Allowance for Credit Losses for Loans and for Unfunded Credit Commitments

Nonperforming assets consist of loans on nonaccrual status, loans past due 90 days or more still accruing interest, and Other Real Estate Owned ("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 allowance for credit losses for loans and unfunded credit commitments:

(Dollars in thousands)	June 30, 2020	December 31, 2019
Nonperforming, past due, and restructured loans:		
Nonaccrual loans	$ 94,326	$ 102,669
Loans past due 90 days or more still accruing interest	76	3,515
Total nonperforming loans (1)	94,402	106,184
OREO and other foreclosed assets	—	—
Total nonperforming assets	$ 94,402	$ 106,184
Performing TDRs	$ 56,281	$ 31,990
Nonperforming loans as a percentage of total loans (1)	0.26%	0.32%
Nonperforming assets as a percentage of total assets	0.11	0.15
Allowance for credit losses for loans	$ 589,828	$ 304,924
As a percentage of total loans (1)	1.61%	0.91%
As a percentage of total nonperforming loans (1)	624.80	287.17
Allowance for credit losses for nonaccrual loans	$ 54,383	$ 44,859
As a percentage of total loans (1)	0.15%	0.13%
As a percentage of total nonperforming loans (1)	57.61	42.25
Allowance for credit losses for total performing loans	$ 535,445	$ 260,065
As a percentage of total loans (1)	1.46%	0.78%
As a percentage of total performing loans (1)	1.46	0.78
Total loans (1)	$ 36,727,222	$ 33,327,704
Total performing loans (1)	36,632,820	33,221,520
Allowance for credit losses for unfunded credit commitments (2)	99,294	67,656
As a percentage of total unfunded credit commitments	0.35%	0.28%
Total unfunded credit commitments (3)	$ 28,127,229	$ 24,521,920

(1) For the quarter ended June 30, 2020, loan amounts are disclosed, and ratios are calculated, using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed, and ratios calculated, using the gross basis.
(2) The "allowance for credit losses 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. See "Provision for Credit Losses" for a discussion of the changes to the allowance.
(3) Includes unfunded loan commitments and letters of credit.

Our allowance for credit losses for loans as a percentage of total loans increased 70 basis points to 1.61 percent at June 30, 2020, compared to 0.91 percent at December 31, 2019. The 70 basis points increase was due primarily to a 68 basis points increase for our performing loan reserve as a percentage of total loans and a two basis points increase for nonaccrual loans.

Our allowance for credit losses for performing loans was $535.4 million at June 30, 2020, compared to $260.1 million at December 31, 2019. Included in the allowance for credit losses at June 30, 2020 is the day one impact of adopting CECL of $22.4 million driven by an increase in our expected credit loss for our Investor Dependent loan portfolio given the higher relative risk and longer-duration, which is taken into account under the CECL methodology, partially offset by a decrease for our Private Equity/Venture Capital loan portfolio, given its higher historical credit quality and shorter duration. The remaining $252.9 million increase was due primarily to an increase of $216.9 million related to the expected credit losses for our performing loan reserves based on our forecast models of the current economic environment and $36.1 million related to period-end loan growth of $3.4 billion.

Our allowance for credit losses for nonaccrual loans was $54.4 million at June 30, 2020, compared to $44.9 million at December 31, 2019. The $9.5 million increase was due primarily to $54.3 million in reserves for new nonaccrual loans as noted above and $3.1 million due to the day one impact of adopting CECL, partially offset by $24.9 million in repayments and $23.0 million in charge-offs. Reserves for new nonaccruals were primarily driven by reserves of $14.1 for one Sponsor Led Buyout client and $9.8 million for two Investor Dependent clients. Repayments were primarily driven by $12.9 million for one Sponsor Led Buyout client that was added to our nonaccrual loan portfolio during the third quarter of 2019.

The following table presents a summary of changes in nonaccrual loans for the six months ended June 30, 2020 and 2019:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Balance, beginning of period (1)	$ 50,607	$ 133,623	$ 102,669	$ 94,142
Additions	66,116	39,460	102,462	90,317
Paydowns and other reductions	(17,784)	(57,507)	(80,461)	(63,937)
Charge-offs	(4,613)	(18,935)	(30,344)	(23,830)
Other reductions	—	—	—	(51)
Balance, end of period (1)	$ 94,326	$ 96,641	$ 94,326	$ 96,641

(1) For the quarter ended June 30, 2020, loan amounts are disclosed using the amortized cost basis as a result of the adoption of CECL. Prior period loan amounts are disclosed using the gross basis.

Nonaccrual loans were $94.3 million at June 30, 2020, compared to $102.7 million at December 31, 2019. Our nonaccrual loan balance decreased $8.4 million primarily driven by $80.5 million in paydowns and other reductions and $30.3 million charge-offs, partially offset by $102.4 million in new nonaccrual loans. Repayments were primarily driven by $34.5 million for one Sponsor Led Buyout client that was added to our nonaccrual loan portfolio during the third quarter of 2019. New nonaccrual loans were driven primarily by $21.8 million for one client in our Sponsor Led Buyout portfolio, $14.8 million for one client in our balance sheet dependent portfolio and $12.3 million for one client in our Investor Dependent portfolio. As of June 30, 2020, we have specifically reserved $54.4 million for our nonaccrual loans.

Average nonaccrual loans for the three and six months ended June 30, 2020 were $76.8 million and $70.3 million, respectively, compared to $97.6 million and $102.0 million for the comparable 2019 period. The $20.8 million decrease in average nonaccrual loans for the three months ended June 30, 2020 compared to June 30, 2019 was primarily driven by large paydowns in the first quarter of 2020 and the new nonaccruals occurring in the latter part of the second quarter. If the nonaccrual loans had not been nonperforming, $0.6 million and $1.0 million in interest income would have been recorded for the three and six months ended June 30, 2020, respectively, compared to $1.4 million and $3.1 million for the comparable 2019 period.

Accrued Interest Receivable and Other Assets

A summary of accrued interest receivable and other assets at June 30, 2020 and December 31, 2019 is as follows:

(Dollars in thousands)	June 30, 2020	December 31, 2019	% Change
Derivative assets (1)	$ 440,430	$ 332,814	32.3 %
Foreign exchange spot contract assets, gross	1,205,821	810,275	48.8
Accrued interest receivable	201,274	216,962	(7.2)
FHLB and Federal Reserve Bank stock	60,673	60,258	0.7
Net deferred tax assets (2)	577	28,433	(98.0)
Accounts receivable	45,501	47,663	(4.5)
Other assets	286,714	248,828	15.2
Total accrued interest receivable and other assets	$ 2,240,990	$ 1,745,233	28.4

(1) See "Derivatives" section below.
(2) See "Other Liabilities" section below.

Foreign Exchange Spot Contract Assets

Foreign exchange spot contract assets represent unsettled client trades at the end of the period. The increase of $395.5 million was primarily due to an overall increase in the amount of unsettled spot trades at period-end as compared to December 31, 2019.

Accrued Interest Receivable

The decrease of $15.7 million in accrued interest receivable is reflective of lower accrued interest receivables on loans and fixed income investments securities from lower overall market rates offset by an increase in period-end fixed income securities of $3.5 billion at June 30, 2020 as compared to December 31, 2019.

Other Assets

Other assets includes various asset amounts for other operational transactions. The increase of $37.9 million was primarily due to a $49.5 million increase in Leerink trade receivables reflective of increased investment banking activity during the six months ended June 30, 2020.

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 June 30, 2020 and December 31, 2019:

(Dollars in thousands)	June 30, 2020	December 31, 2019	% Change
Assets:			
Equity warrant assets	$ 171,082	$ 165,473	3.4%
Foreign exchange forward and option contracts	182,093	115,854	57.2
Client interest rate derivatives	87,255	28,811	NM
Interest rate swaps	—	22,676	—
Total derivative assets	$ 440,430	$ 332,814	32.3
Liabilities:			
Foreign exchange forward and option contracts	$ 152,538	$ 98,207	55.3
Client interest rate derivatives	28,676	14,154	102.6
Interest rate swaps	—	25,623	—
Total derivative liabilities	$ 181,214	$ 137,984	31.3

NM—Not meaningful

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 June 30, 2020, we held warrants in 2,419 companies, compared to 2,268 companies at December 31, 2019. Warrants in 20 companies each had fair values greater than $1.0 million and collectively represented $50.7 million, or 29.6%, of the fair value of the total warrant portfolio at June 30, 2020. 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 equity warrant assets for the six months ended June 30, 2020 and 2019:

	Three months ended June 30,		Six months ended June 30,	
(Dollars in thousands)	2020	2019	2020	2019
Balance, beginning of period	$ 152,710	$ 162,215	$ 165,473	$ 149,238
New equity warrant assets	7,353	3,051	11,872	7,521
Non-cash changes in fair value, net	17,510	9,166	8,043	22,356
Exercised equity warrant assets	(6,052)	(15,339)	(13,434)	(19,183)
Terminated equity warrant assets	(439)	(1,045)	(872)	(1,884)
Balance, end of period	$ 171,082	$ 158,048	$ 171,082	$ 158,048

Foreign Exchange Forward and Foreign Currency Option Contracts

We enter into foreign exchange forward contracts and foreign currency option contracts with clients involved in foreign activities, either as the purchaser or seller, depending upon the clients' needs. For each forward or option contract entered into with our clients, we enter into an opposite way forward or option 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. 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. Our net exposure for foreign exchange forward and foreign currency option contracts, net of cash collateral, was zero at June 30, 2020 and $22.2 million at December 31, 2019. For additional information on our foreign exchange forward contracts and foreign currency option contracts, see Note 11 — "Derivative Financial Instruments" of the "Notes to Interim Consolidated Financial Statements (unaudited)" under Part I, Item 1 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. Our net exposure for client interest rate derivative contracts, net of cash collateral, was $86.5 million at June 30, 2020 and $28.6 million at December 31, 2019. For additional information on our client interest rate derivatives, see Note 11 — "Derivative Financial Instruments" of the "Notes to Interim Consolidated Financial Statements (unaudited)" under Part I, Item 1 of this report.

Interest Rate Swaps

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 other assets and other liabilities. Refer to Note 11 — "Derivative Financial Instruments" of the "Notes to Interim Consolidated Financial Statements (unaudited)" under Part I, Item 1 of this report for additional information regarding the termination of our interest rate swap cash flow hedges at June 30, 2020.

Deposits

Deposits were $74.5 billion at June 30, 2020, an increase of $12.7 billion, or 20.6 percent, compared to $61.8 billion at December 31, 2019.

At June 30, 2020, the aggregate balance of time deposit accounts individually equal to or greater than $100,000 totaled $374 million, compared to $185 million at December 31, 2019. At June 30, 2020, $373 million of the time deposit accounts individually equal to or greater than $100,000 were scheduled to mature within one year. No material portion of our deposits has been obtained from a single depositor and the loss of any one depositor would not materially affect our business. Approximately 12 percent and 13 percent of our total deposits at June 30, 2020 and December 31, 2019, respectively, were from our clients in Asia.

We expect in 2020 that our deposit growth will be impacted by: slower cash burn rates as clients look to conserve cash; shifting of off-balance investments to on-balance deposits by clients to preserve flexibility; and a slowdown in investment and exit activities impacting client liquidity levels and potential private equity/venture capital firm distributions to their partners.

Short-Term Borrowings

As of June 30, 2020, we had $50.9 million in short-term borrowings, compared to $17.4 million as of December 31, 2019. The increase was due to an increase in collateral held from our counterparties in relation to exposures in our favor on outstanding derivative contracts. For more information on our short-term debt, see Note 10 — “Short-Term Borrowings and Long-Term Debt” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 of this report.

Long-Term Debt

Our long-term debt was $843.2 million at June 30, 2020 and $348.0 million at December 31, 2019. The increase in our long-term debt was due to the issuance of 3.125% Senior Notes during the second quarter of 2020.

As of June 30, 2020, long-term debt included our 3.50% Senior Notes and 3.125% Senior Notes. For more information on our long-term debt, see Note 10 — “Short-Term Borrowings and Long-Term Debt” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 of this report.

Other Liabilities

A summary of other liabilities at June 30, 2020 and December 31, 2019 is as follows:

(Dollars in thousands)	June 30, 2020	December 31, 2019	% Change
Foreign exchange spot contract liabilities, gross	$ 1,278,006	$ 888,360	43.9
Accrued compensation	239,190	354,393	(32.5)
Allowance for unfunded credit commitments	99,294	67,656	46.8
Derivative liabilities (1)	181,214	137,984	31.3
Net deferred tax liabilities	89,457	—	—
Other liabilities	736,246	593,359	24.1
Total other liabilities	$ 2,623,407	$ 2,041,752	28.5

(1) See “Derivatives” section above.

Foreign Exchange Spot Contract Liabilities

Foreign exchange spot contract liabilities represent unsettled client trades at the end of the period. The increase of $389.6 million was due primarily to an increase in the fair value of unsettled spot trades at June 30, 2020 as compared to December 31, 2019.

Accrued Compensation

Accrued compensation includes amounts for our Incentive Compensation Plan, Direct Drive Incentive Compensation Plan, Retention Program, Warrant Incentive Plan, ESOP, SVB Leerink Incentive Compensation Plan, SVB Leerink Retention Award and other compensation arrangements. The decrease of $115.2 million was primarily the result of the payout of our 2019 incentive compensation plans during the first quarter of 2020, partially offset by the accrual for the six months ended June 30, 2020 related primarily to the increase in the number of average FTEs for the first half of 2020 as well as the SVB Leerink incentive compensation resulting from strong second quarter performance.

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 $31.6 million was due primarily to the day one impact of the adoption of CECL of $22.8 million as well as a $9.1 million increase for the six months ended June 30, 2020, driven primarily by growth in unfunded credit commitments of $3.6 billion.

Net Deferred Tax Liabilities

Net deferred tax liabilities increased due to the recording of pre-tax unrealized gains to accumulated other comprehensive income from the termination of our interest rate swap cash flow hedge contracts partially offset by timing differences related to warrants and fund investments.

Other Liabilities

Other liabilities includes various accrued liability amounts for other operational transactions. The increase of $142.9 million was reflective primarily of a $80.1 million increase in current taxes payable, as well as a $34.0 million increase in syndicate payables, and a $30.9 million increase in new commitments for our qualified affordable tax credit funds.

Noncontrolling Interests

Noncontrolling interests totaled $148.9 million and $150.8 million at June 30, 2020 and December 31, 2019, respectively. The $1.9 million decrease was due primarily to distributions of $14.1 million, partially offset by net income attributable to noncontrolling interests of $12.3 million for the six months ended June 30, 2020.

Fair Value Measurements

The following table summarizes our financial assets and liabilities that are measured at fair value on a recurring basis as of June 30, 2020 and December 31, 2019:

	June 30, 2020		December 31, 2019	
(Dollars in thousands)	Total Balance	Level 3	Total Balance	Level 3
Assets carried at fair value	$ 19,150,966	$ 165,359	$ 14,672,330	$ 161,172
As a percentage of total assets	22.3%	0.2%	20.7%	0.2%
As a percentage of assets carried at fair value		0.9		1.1
Liabilities carried at fair value	$ 181,214	$ —	$ 137,984	$ —
As a percentage of total liabilities	0.2%	—%	0.2%	—%

Financial assets valued using Level 3 measurements consist of our non-marketable investment securities in shares of private company stock and equity warrant assets (rights to shares of private and public company capital stock). The valuation methodologies of our non-marketable securities carried under fair value accounting and equity warrant assets involve a significant degree of management judgment. Refer to Note 17 — “Fair Value of Financial Instruments” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 of this report for a summary of the valuation techniques and significant inputs used for each class of Level 3 assets.

The inherent uncertainty in the process of valuing securities for which a ready market does not exist may cause our estimated values of these securities to differ significantly from the values that would have been derived had a ready market for the securities existed, and those differences could be material. The timing and amount of changes in fair value, if any, of these financial instruments depend upon factors beyond our control, including the performance of the underlying companies, fluctuations in the market prices of the preferred or common stock of the underlying companies, general volatility and interest rate market factors, and legal and contractual restrictions. The timing and amount of actual net proceeds, if any, from the disposition of these financial instruments depend upon factors beyond our control, including investor demand for IPOs, levels of M&A activity, legal and contractual restrictions on our ability to sell, and the perceived and actual performance of portfolio companies. All of these factors are difficult to predict and there can be no assurances that we will realize the full value of these securities, which could result in significant losses. See generally “Risk Factors” set forth under Part I, Item 1A in our 2019 Form 10-K, and under Part II, Item 1A of this report.

During the three and six months ended June 30, 2020, the Level 3 assets that are measured at fair value on a recurring basis experienced net realized and unrealized gains of $24.1 million and $38.7 million, respectively, primarily reflective of net gains realized on exercised warrant assets. During the three and six months ended June 30, 2019, the Level 3 assets that are measured at fair value on a recurring basis experienced net realized and unrealized gains of $46.6 million and $65.8 million, respectively, primarily reflective of valuation increases from our private company warrant portfolio driven by net gains realized on exercised warrant assets.

Capital Resources

We maintain an adequate capital base to support anticipated asset growth, operating needs, and 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 $7.3 billion at June 30, 2020, an increase of $0.8 billion, or 13.1 percent, compared to $6.5 billion at December 31, 2019. This increase was due primarily to net income available to common stockholders of $361.2 million and increase in other comprehensive income was driven primarily by a $590.6 million ($426.9 million net of tax) increase in the fair value of our AFS securities portfolio reflective of decreases in market interest rates and a $214.0 million ($154.7 million net of tax) remaining gain from the termination of our interest rate swap cash flow hedge contracts, partially offset by a reclassification to net income for realized gains of $61.2 million ($44.2 million net of tax) attributable to sales of AFS securities.

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.

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 June 30, 2020 and December 31, 2019. Capital ratios for SVB Financial and the Bank, compared to the minimum capital ratios, are set forth below:

	June 30, 2020	December 31, 2019	Required Minimum (1)	Well Capitalized Minimum
SVB Financial:				
CET 1 risk-based capital ratio (2)(3)	12.63%	12.58%	7.0%	N/A
Tier 1 risk-based capital ratio (3)	13.62	13.43	8.5	6.0
Total risk-based capital ratio (3)	14.77	14.23	10.5	10.0
Tier 1 leverage ratio (2)(3)	8.68	9.06	4.0	N/A
Tangible common equity to tangible assets ratio (4)(5)	7.94	8.39	N/A	N/A
Tangible common equity to risk-weighted assets ratio (4)(5)	13.68	12.76	N/A	N/A
Bank:				
CET 1 risk-based capital ratio (3)	11.08%	11.12%	7.0%	6.5%
Tier 1 risk-based capital ratio (3)	11.08	11.12	8.5	8.0
Total risk-based capital ratio (3)	12.28	11.96	10.5	10.0
Tier 1 leverage ratio (3)	6.91	7.30	4.0	5.0
Tangible common equity to tangible assets ratio (4)(5)	6.91	7.24	N/A	N/A
Tangible common equity to risk-weighted assets ratio (4)(5)	12.17	11.31	N/A	N/A

(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" CET 1 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 allowance for credit losses under the 2020 CECL Transition Rule for periods beginning March 31, 2020.
(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.

Regulatory Capital Phase-In under the 2020 CECL Transition Rule

In March 2020, the federal banking agencies issued the 2020 CECL Transition Rule, which provides transitional relief to banking organizations with respect to the impact of CECL on regulatory capital. Under the rule, banking organizations that adopt CECL during the 2020 calendar year, such as SVB Financial and the Bank, 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. 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 have elected to use the five-year transition option under the 2020 CECL Transition Rule.

Capital Simplification Rules

In July 2019, the federal banking agencies adopted final rules intended to simplify compliance with capital rules for non-advanced approaches banking organizations (the “Capital Simplification Rules”), such as SVB Financial and the Bank. The Capital Simplification Rules took effect for SVB Financial as of January 1, 2020 and simplify the capital treatment of mortgage servicing assets, certain deferred tax assets, investments in unconsolidated financial institutions and minority interests for banking organizations.

Our total risk-based capital ratios for SVBFG and our Tier 1 risk-based capital ratio for SVBFG as of June 30, 2020 increased compared to December 31, 2019 as a result of an increase in capital, offset by an increase in our risk-weighted assets. The increase in capital was due to net income, an increase in our allowance for credits losses for loans and HTM securities and an increase in

minority interest for SVBFG reflective of the implementation of the Capital Simplification Rules. The increase in risk-weighted assets was primarily driven by our robust period-end loan growth and increase in our fixed income securities portfolio.

Our tier 1 risk-based capital ratio for the Bank as of June 30, 2020 remained relatively flat, as the increase in capital was proportional to the increase in our risk-weighted assets.

Our tier 1 leverage ratios for both SVBFG and the Bank as of June 30, 2020 decreased compared to December 31, 2019 driven primarily by an increase in risk-weighted and average assets, offset by an increase in tier 1 capital. The increase in risk-weighted and average assets was driven primarily by loan growth, increased cash and cash equivalents and increased fixed income investment securities. The increase in tier 1 capital for the Bank was driven primarily by net income. The increase in tier 1 capital for SVBFG was driven primarily by net income and an increase in minority interest due to the Capital Simplification Rules, offset by a decrease in retained earnings due to common stock repurchases under our stock repurchase program.

Our CET 1 capital ratio remained relatively flat for both SVBFG and the Bank as of June 30, 2020 compared to December 31, 2019 as a result of an increase in capital, offset by the increase our risk-weighted assets. The increase in capital was due to net income and an increase in the allowance for credit losses for loans and HTM securities. These increases in capital were partially offset by the increase in risk weighted assets, driven by our robust period-end loan growth and increase in our fixed income securities portfolio.

All of our reported capital ratios remain above the levels considered to be “well capitalized” under applicable banking regulations.

The tangible common equity 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 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 for SVB Financial and the Bank for the periods ended June 30, 2020 and December 31, 2019:

	SVB Financial		Bank	
Non-GAAP tangible common equity and tangible assets (Dollars in thousands, except ratios)	**June 30, 2020**	**December 31, 2019**	**June 30, 2020**	**December 31, 2019**
GAAP SVBFG stockholders’ equity	$ 7,319,373	$ 6,470,307	$ 5,821,224	$ 5,034,095
Less: preferred stock	340,138	340,138	—	—
Less: intangible assets	184,549	187,240	—	—
Tangible common equity	$ 6,794,686	$ 5,942,929	$ 5,821,224	$ 5,034,095
GAAP total assets	$ 85,730,985	$ 71,004,903	$ 84,214,926	$ 69,563,817
Less: intangible assets	184,549	187,240	—	—
Tangible assets	$ 85,546,436	$ 70,817,663	$ 84,214,926	$ 69,563,817
Risk-weighted assets	$ 49,682,026	$ 46,577,485	$ 47,838,181	$ 44,502,150
Non-GAAP tangible common equity to tangible assets	7.94%	8.39%	6.91%	7.24%
Non-GAAP tangible common equity to risk-weighted assets	13.68	12.76	12.17	11.31

The tangible common equity to tangible assets ratio and the tangible common equity to risk weighted assets ratio increased for SVBFG and the Bank during the six months ended June 30, 2020. The tangible common equity to risk-weighted assets ratio increased as a result of increase in equity due to unrealized gains on AFS securities and unrealized gains due to the termination of our interest rate swap cash flow hedge contracts as mentioned above. The growth in period-end risk-weighted assets was primarily due to increases in cash and cash equivalents and an increase in the fixed income portfolio.

Off-Balance Sheet Arrangements

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. For details of our commitments to extend credit, and commercial and standby letters of credit, please refer to Note 15 — “Off-Balance Sheet Arrangements, Guarantees and Other Commitments” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 of this report.

Commitments to Invest in Venture Capital and Private Equity Funds

Subject to applicable regulatory requirements, including the Volcker Rule, 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.

For further details on our commitments to invest in venture capital and private equity funds, refer to Note 15 — “Off-Balance Sheet Arrangements, Guarantees and Other Commitments” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 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, 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 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. Our Asset/Liability Committee (“ALCO”), which is a management committee, provides oversight to the liquidity management process and recommends policy guidelines for the approval of the Finance 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.

Historically, client deposits have been our primary source of liquidity. 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 June 30, 2020, our period-end total deposit balances were $74.5 billion, compared to $61.8 billion at December 31, 2019.

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, available-for-sale 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-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 June 30, 2020, collateral pledged to the FHLB of San Francisco was comprised primarily of fixed income investment securities and loans and had a carrying value of $6.5 billion, of which $5.6 billion was available to support additional borrowings. As of June 30, 2020, collateral pledged to the discount window at the FRB was comprised of fixed income investment securities and had a carrying value of $0.9 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 $1.9 billion at June 30, 2020. Our total unused and available borrowing capacity under our master repurchase agreements with various financial institutions totaled $3.3 billion at June 30, 2020.

In connection with our participation in the PPP under the CARES Act as discussed, we considered participating in the Federal Reserve’s Paycheck Protection Program Lending Facility ("PPPLF"). The PPPLF was established to allow participating institutions to facilitate lending under the PPP and extends credit to eligible PPP loan originators on a non-recourse basis, taking PPP loans as collateral at face value. Ultimately, we were able to extend credit to PPP borrowers without relying on the PPPLF. Additionally, interim final capital rules issued by federal bank regulatory agencies have neutralized the regulatory capital effects of participating in the PPP, in that loans outstanding are assessed a zero percent risk weight for regulatory capital purposes.

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. Consistent with recent prior quarters, the Bank has paid a quarterly dividend to SVB Financial. For the three months ended June 30, 2020, no dividend was paid to SVB Financial, and for the six months ended June 30, 2020, $50.0 million was paid. 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 our 2019 Form 10-K.

Consolidated Summary of Cash Flows

Below is a summary of our average cash position and statement of cash flows for the six months ended June 30, 2020 and 2019. For further details, see our "Interim Consolidated Statements of Cash Flows (Unaudited)" under Part I, Item 1 of this report.

	Six months ended June 30,	
(Dollars in thousands)	**2020**	**2019**
Average cash and cash equivalents	$ 10,460,207	$ 5,470,520
Percentage of total average assets	13.9%	9.3%
Net cash provided by operating activities	$ 745,478	$ 450,571
Net cash (used for) provided by investing activities	(6,532,868)	(317,021)
Net cash provided by financing activities	13,207,713	5,315,836
Net increase in cash and cash equivalents	$ 7,420,323	$ 5,449,386

Average cash and cash equivalents increased by $5.0 billion, or 91.2 percent, to $10.5 billion for the six months ended June 30, 2020, compared to $5.5 billion for the comparable 2019 period.

Cash provided by operating activities was $745.5 million for the six months ended June 30, 2020, reflective primarily of net income before noncontrolling interests and dividends of $381.4 million and a net increase of $364.0 million in adjustments to reconcile net income to net cash primarily driven by the provision for credit losses.

Cash used for investing activities of $6.5 billion for the six months ended June 30, 2020 was driven by $8.6 billion in purchases of fixed income investment securities and a $3.5 billion increase in loan balances, partially offset by $2.7 billion in proceeds from the sale of AFS securities and $3.1 billion of proceeds from maturities and principle pay downs from our fixed income investment securities portfolio.

Cash provided by financing activities was $13.2 billion for the six months ended June 30, 2020, reflective primarily of a $12.7 increase in deposits and $0.5 billion increase from the issuance of long term debt.

Cash and cash equivalents were $14.2 billion and $9.0 billion, respectively, at June 30, 2020 and 2019.

ITEM 3. 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 interest rates and changes in the shape and level of the benchmark LIBOR/SWAP 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). All these risks are important considerations but are also inherently difficult to predict and to assess the impact of each on simulation results. Consequently, simulations used to analyze the sensitivity of net interest income 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 the modeled 12-month projection of net interest income from changes in interest rates, structural changes in investment and funding portfolios, loan and deposit activity and current 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 and net interest income under a variety of interest rate scenarios, balance sheet forecasts and business strategies. The simulation model provides a dynamic assessment of interest rate sensitivity embedded within our balance sheet which measures the potential variability in economic value and net interest income 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

A specific application of our simulation model involves measurement of the impact of changes in market interest rates on the economic value of equity (“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 net interest income (“NII”) assuming a static balance sheet size and composition as of the period-end reporting date. In the NII simulation, the level of market interest rates as well as 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. 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. Similarly, we make certain deposit decay rate assumptions on demand deposits and interest-bearing deposits, which are replenished to hold the level and mix of funding liabilities constant. Changes in market interest rates that affect net interest income are principally short-term interest rates and include the following benchmark indexes: (i) the National Prime Rate, (ii) 1-month and 3-month LIBOR, and (iii) 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. Additionally, 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 lag in terms of timing and magnitude.

The NII simulation results presented here include an "asymmetric" beta assumption that is applied in the NII and EVE simulation models for interest-bearing deposits. This reflects management expectations that deposit repricing behavior in a falling rate environment would be different than repricing behavior in a rising rate environment. This model assumes the overall beta for interest-bearing deposits in a falling rate environment would be approximately 60 percent. That is, overall changes in interest-bearing deposit rates would be approximately 60 percent of the change in short-term market rates. These repricing assumptions are reflected as changes in interest expense on interest-bearing deposit balances.

The following table presents our EVE and NII sensitivity exposure related to an instantaneous and sustained parallel shift in market interest rates of 100 and 200 basis points ("bps") at June 30, 2020 and December 31, 2019:

Change in interest rates (bps) (Dollars in thousands)	Estimated EVE	Estimated Increase/(Decrease) in EVE		Estimated NII	Estimated Increase/(Decrease) in NII	
		Amount	Percent		Amount	Percent
June 30, 2020:						
+200	$ 10,617,433	$ 46,816	0.4 %	$ 2,580,576	$ 645,203	33.3 %
+100	10,686,185	115,568	1.1	2,251,632	316,259	16.3
—	10,570,617	—	—	1,935,373	—	—
-100	10,659,364	88,747	0.8	1,857,782	(77,591)	(4.0)
-200	10,659,364	88,747	0.8	1,852,890	(82,483)	(4.3)
December 31, 2019:						
+200	$ 9,930,270	$ (253,659)	(2.5)%	$ 2,528,158	$ 421,358	20.0 %
+100	10,056,711	(127,218)	(1.2)	2,314,686	207,886	9.9
—	10,183,929	—	—	2,106,800	—	—
-100	10,138,558	(45,371)	(0.4)	1,927,801	(178,999)	(8.5)
-200	10,000,585	(183,344)	(1.8)	1,760,283	(346,517)	(16.4)

Economic Value of Equity

The estimated EVE in the preceding table is based on a combination of valuation methodologies including a discounted cash flow analysis and a multi-path lattice-based valuation. Both methodologies use publicly available market interest rates to determine discounting factors on projected cash flows. The model simulations and calculations are highly assumption-dependent and will change regularly as the composition of earning assets and funding liabilities change (including the impact of changes in the value of interest rate derivatives, if any), as interest rate environments evolve, and as we change our assumptions in response to relevant market conditions, competition or business circumstances. These calculations do not reflect forecast changes in our balance sheet or changes we may make to reduce our EVE exposure as a part of our overall interest rate risk management strategy.

As with any method of measuring interest rate risk, certain limitations are inherent in the method of analysis presented in the preceding table. We are exposed to yield curve risk, prepayment risk, basis risk and yield spread compression, which cannot be fully modeled and expressed using the above methodology. Accordingly, the results in the preceding table should not be relied upon as a precise indicator of actual results in the event of changing market interest rates. Additionally, the resulting EVE and NII estimates are not intended to represent and should not be construed to represent our estimate of the underlying EVE or forecast of NII.

Our base EVE as of June 30, 2020 increased $387 million from December 31, 2019, driven by overall balance sheet growth. For the period ended June 30, 2020, compared to December 31, 2019, cash balances increased by $7.4 billion and loan balances increased by $3.6 billion. Fixed income investments in our AFS and HTM portfolio increased by $3.5 billion. Total deposits increased significantly with an $8.3 billion increase in noninterest bearing accounts and $4.4 billion in interest bearing accounts; however, the mix of noninterest bearing and interest bearing deposits to total deposits remained unchanged at June 30, 2020, compared to December 31, 2019. Borrowings increased by $529 million, driven primarily by the issuance of new long-term debt.

Overall deposit balance growth resulted in high levels of cash balances which reduce market value sensitivity on the asset side of the balance sheet. Cash balances at June 30, 2020, were $14.2 billion compared to $6.8 billion at December 31, 2019 amounting to 16.6 percent and 9.6 percent of total assets, respectively. This fundamental shift in the balance sheet structure caused total asset market value sensitivity to be lower than total liability sensitivity resulting in a positive EVE sensitivity in the +100 and +200 rate shock scenarios. However, due to the significant increase in deposits relative to loans and fixed income investments, as interest rates continue to rise, the higher proportion of deposit balances to total interest earning assets causes a decline in the EVE from the +100 bps rate shock scenario to the +200 bps rate shock scenario. Furthermore, the decrease in duration and yield on our fixed income securities portfolio to 3.4 years from 3.9 years and to 2.49 percent from 2.58 percent, respectively, at June 30, 2020 compared to December 31, 2019, results in further declines in our EVE from the +100 bps rate shock scenario to the +200 bps rate shock scenario.

Due to the sudden decrease in market rates that occurred in March 2020, EVE sensitivity measures in the -100 and -200 bps rate shock scenarios do not represent the full magnitude of those rate shocks because we assume that U.S. Federal Fund rates are floored at zero. As a result, the EVE sensitivity of the -100 and -200 bps rate shock scenarios are virtually identical.

The overall change in mix in the composition of our balance sheet as discussed, results in an EVE profile that experiences positive changes as rates rise, and represents a typical profile for a cash-heavy balance sheet that includes a rate-sensitive loan portfolio funded by a much larger noninterest-bearing deposit base.

12-Month Net Interest Income Simulation

NII sensitivity is measured as the percentage change in projected 12-month net interest income 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. At June 30,2020, NII sensitivity was 16.3 percent in the +100 bps interest rate scenario, compared to 9.9 percent at December 31, 2019. Our NII sensitivity in the +200 bps interest rate shock scenario was 33.3 percent compared to 20.0 percent at December 31, 2019. NII sensitivity in the -100 bps scenario of negative 4.0 percent was lower at June 30, 2020, compared to a negative 8.5 percent at December 31, 2019. The -200 bps scenario currently indicates a lower percentage change in NII of negative 4.3 percent at June 30, 2020, compared to negative 16.4 percent at December 31, 2019. However, as noted above, the -100 and -200 bps scenarios are not complete rate shocks in this rate environment, since rates are assumed to be floored at zero. Therefore, the sensitivity measures in these scenarios essentially reflect results similar to what would be seen in a -25 to -50 bps rate shock range. The June 30, 2020 NII sensitivity percentages are inclusive of the realized income or expense associated with interest rate swaps that were partially unwound reflective of the macro hedging process initiated in 2019 to reduce the impact of decreasing rates on NII. The changes in NII sensitivity are primarily the result of the changes in balance sheet composition described previously, combined with the impact of hedges in the respective parallel rate shock scenarios.

Our base case static 12-month NII forecast at June 30, 2020 decreased compared to December 31, 2019 by $171 million, primarily driven by the growth in the balance sheet that has taken place year-to-date combined with an overall relatively lower rate environment, reflective of the decrease in the Fed Funds rate during March 2020, compared to last year. Specifically, a large portion of the loan portfolio is indexed to the Prime rate, which decreased 150 bps due to actions undertaken by the Federal Reserve in March to mitigate a possible economic downturn. The adverse impact of changes in interest rates on NII was tempered to a certain degree by continued growth in the loan portfolio. The adverse impact of changes in interest rates on NII was tempered by continued growth in the balance sheet.

A majority of our loans are indexed to Prime and LIBOR. In the positive 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 negative rate shock scenarios.

The 12-month NII simulations include repricing assumptions on our interest-bearing deposit products which we set at our discretion based on client needs and our overall funding mix. Repricing of interest-bearing deposits impacts estimated interest expense. As noted previously, repricing deposit rates are generally assumed to be approximately 60 percent of the amount of simulated changes in short-term market interest rates.

The simulation model used in the above analysis incorporates embedded floors on loans, where present, in our interest rate scenarios, which prevent model benchmark rates from moving below zero percent in the down rate scenarios. The embedded 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 addition, we assume different deposit balance decay rates based on a historical deposit study of our clients. These assumptions may change in future periods based on changes in client behavior and at management's discretion. Actual changes in our deposit pricing strategies may differ from our current model assumptions and may have an impact on our actual sensitivity overall.

ITEM 4. CONTROLS AND PROCEDURES

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 we file or submit under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), is recorded, processed, summarized, and reported within the time periods specified in 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 we file or submit 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.

We 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 our most recently completed fiscal quarter, pursuant to Exchange Act Rule 13a-15(b). Based upon this evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of the period covered by this report, the Company’s disclosure controls and procedures were effective.

Changes in Internal Control

Except as set forth below, there were no changes in our internal control over financial reporting identified in management's evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during the period covered by this Quarterly Report on Form 10-Q that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Beginning January 1, 2020, we adopted and implemented ASC 326, CECL and have implemented changes to our processes, systems and control activities related to the modeling and recognition of our allowance for credit loss estimates. The key changes to our processes and control activities included data management, economic forecasting, modeling, qualitative framework, governance and gathering of information provided for disclosures.

PART II–OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Please refer to Note 18 — “Legal Matters” of the “Notes to Interim Consolidated Financial Statements (unaudited)” under Part I, Item 1 of this report.

ITEM 1A. RISK FACTORS

With the exception of the additional risk factor due to ongoing outbreak of COVID-19 below, there are no material changes to the risk factors set forth in our 2019 Annual Report on Form 10-K.

Our business, financial condition, liquidity, capital and results of operations have been, and will likely continue to be, adversely affected by the COVID-19 pandemic.

The COVID-19 pandemic has created significant economic and financial disruptions that have adversely affected, and are likely to continue to adversely affect, our business, financial condition, liquidity, capital and results of operations. We remain unable to predict the extent to which the COVID-19 pandemic will continue to negatively affect our business, financial condition, liquidity, capital and results of operations. The extent of any continued or future adverse effects of the COVID-19 pandemic will depend on future developments, which are 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, customers, counterparties and service providers, as well as other market participants, actions taken by governmental authorities and other third parties in response to the pandemic, and the scope and duration of future phases or outbreaks, or seasonal or other resurgences, of the disease.

The COVID-19 pandemic has contributed to, among other things (i) increased unemployment and decreased consumer confidence and business generally, leading to an increased risk of delinquencies, defaults and foreclosures; (ii) sudden and significant declines, and significant increases in volatility, in financial markets; (iii) ratings downgrades, credit deterioration and defaults in many industries; (iv) significant draws on credit lines as clients seek to increase liquidity; (v) significant reductions in the targeted federal funds rate; and (vi) heightened cybersecurity, information security and operational risks as a result of work-from-home arrangements and the current environment, including increased fraudulent activity. In addition, we also face an increased risk of client disputes, litigation and governmental and regulatory scrutiny as a result of the effects of COVID-19 on market and economic conditions, actions that governmental authorities take in response to those conditions, and our implementation of and participation in special financial relief programs, such as the Paycheck Protection Program ("PPP"). Moreover, we have focused resources and management attention towards managing the impacts of the COVID-19 pandemic, and we have and likely will have to continue to prioritize managing these impacts over certain growth initiatives and other investments in the near term.

We are prioritizing the safety of our employees. During the first quarter of 2020, we moved to a work-from-home plan, prohibited all business travel, postponed or moved online all SVB-hosted events, and enabled remote access to our systems. 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, or imbalances between work and home life, which may lead to reduced productivity and/or significant disruptions in our business operations. We are also continuing to provide support for our workforce related to technology, physical working conditions, work/life balance and remote collaboration. If these support measures are not effective over a prolonged period, our employees or business may not operate effectively. Moreover, we are developing a plan for employees to eventually return to work in our offices, the manner and timing of which are unclear. Our return to office plan will be subject to a variety of complex considerations including, among others, international, federal, state and local government and health organization guidance, health and safety implications (including potential health testing requirements), employee needs, and the practical requirements of potential office reconfigurations or a phased return. It is also possible that our current extended work-from-home model may affect or change our prior work-in-the-office model, as we may allow an increase in remote working practices.

Many of our counterparties and third-party service providers have also been, and may further be, affected by “stay-at-home” orders, market volatility and other factors that increase their risks of business disruption or that may otherwise affect their ability to perform under the terms of any agreements with us or provide essential services. As a result, our operational and other risks are generally expected to increase until the pandemic subsides.

During the second quarter we offered special financial assistance to support certain clients who are experiencing financial hardships related to the COVID-19 pandemic, including offering certain venture-backed companies, Private Bank, Wine and other clients the opportunity to temporarily defer their scheduled loan principal payments. We continue to engage with our clients to understand client needs, and we may implement additional assistance or other relief to supporting clients across various sectors and life stages. Additionally, we are participating as a lender in the PPP under CARES Act and the U.K. CBILS and CLBILS, and may participate in other government relief programs in the U.S. or internationally. These government programs are complex and our

participation in any of these programs may lead to governmental, regulatory and other scrutiny, litigation and negative publicity and reputation damage for us and our customers who participate. For example, like many other participating banks, we have been named in various lawsuits regarding the right to agent fees under the PPP. Overall, these relief measures, whether our own programs or our participation in government programs, are new programs for us (with new or revised regulatory guidance for the government programs that may be issued at different times throughout the process) and we may not be successful in implementing or administering the programs as intended. Further, the extent to which these programs are successful in assisting our clients is uncertain. These relief programs are temporary in nature, as the PPP, as currently designed, provide one-time relief, and our loan payment deferral programs expire during the second half of the year. Our clients may experience financial difficulties without the continued support from these programs. If these relief measures are not effective, or if these relief measures are effective for only a limited period and our clients experience delayed financial hardship, there may be an adverse effect on our revenue and results of operations, including increased provisions in our allowance for credit losses, higher rates of default and increased credit losses in future periods.

Certain industries where the Company has credit exposure, including the technology, life science/healthcare and premium wine industries, have experienced, and are expected to continue to experience, significant operational and financial challenges as a result of COVID-19. As examples, many of our early-stage clients have limited cash on hand with limited or no financing sources available. Although these challenges have been somewhat offset by relief programs and decreased cash utilization, many of these companies may experience difficulties sustaining their businesses over time. In addition, our premium wine industry clients have and may continue to be impacted by the loss of restaurant and winery sales and have needed to alter their sales strategies to offset these declines, which may or may not be successful. These negative effects have resulted in a number of clients making higher than usual draws on outstanding lines of credit, which may negatively affect our liquidity if current economic conditions persist. The effects of COVID-19 may also 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 we expect would cause significant increases in our credit losses. For certain early-stage and mid-stage clients, repayment of loans is dependent upon receipt of additional financing from venture capitalists or others, or in some cases, upon a successful sale to a third party, public offering or other form of liquidity or “exit” event. Further, many of our private equity/venture capital loans are dependent on the payment of capital calls or management fees by underlying limited partner investors in funds managed by private equity and venture capital firm clients. The effects of the COVID-19 pandemic have caused client valuations to drop, reduced the rate of financing or other “exit” events and impaired the ability of investors to meet their financial obligations to our clients, all of which has had and may continue to have an adverse effect on our clients’ ability to repay their loans to us.

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 in the technology, life science and healthcare industries subject to applicable regulatory limits. We have also made investments through SVB Financial, SVB Leerink and our SVB Capital family of funds in venture capital funds and direct investments in companies, many of which are required to be carried at fair value or are impacted by changes in fair value. Due to the negative effects of the COVID-19 pandemic as well as recent declines, and significant increases in volatility, in financial markets, the value of these assets has decreased, and may continue to decrease (potentially in a significant manner). Additionally, 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.

The effects of the COVID-19 pandemic have led to a significant slowdown in IPO and M&A activity in many industries. Although there was strong capital markets activity in the healthcare and life sciences sector in the second quarter of 2020, a decline in this activity in future quarters could lead to decreased revenues of SVB Leerink, our investment banking business, as such revenues stem primarily from underwriting and advisory fees associated with capital markets and M&A transactions. The IPO and M&A slowdown in other industries, including the technology industry, also impacts our ability to monetize and realize gains from our equity warrant assets and other nonmarketable securities. Additionally, a slowdown in overall private equity and 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.

Our earnings and cash flows are dependent to a large degree on net interest income (the difference between interest income from loans and investments and interest expense on deposits and borrowings). Net interest income is significantly affected by market rates of interest. The significant reductions to the federal funds rate have led to a decrease in the rates and yields on U.S. Treasury securities, in some cases declining below zero. If interest rates are reduced further in response to COVID-19, we expect that our net interest income will decline, perhaps significantly. The overall effect of lower interest rates cannot be predicted at this time and depends on future actions the Federal Reserve may take to increase or reduce the targeted federal funds rate in response to the COVID-19 pandemic, and resulting economic conditions. Our net interest income is also impacted by our loan volume. If our loan levels were to decline, our net interest income would also be negatively impacted. Specifically, PPP loans, of which we had $1.8 billion as of June 30, 2020, will be eligible to be forgiven during the second half of the year. Although the

ultimate timing and amount of loans forgiven is uncertain, we currently estimate that 75% of PPP loans will be forgiven by year end.

Our core fee income has been and may continue to be negatively affected by decreasing business activity due to the COVID-19 pandemic. For example, credit card activity and fees have declined, and may continue to decline in the future. Foreign exchange fees and letters of credit and standby letters of credit fees may also decline if the negative effect on business activity persists for a prolonged period of time. Additionally, our deposit levels may fluctuate during the current environment. Although our deposit levels grew during the second quarter of 2020, it is difficult to predict client liquidity in a challenging economic environment, as clients may increase their draws on their lines of credit to bolster their cash positions, or clients may not be able to obtain additional financing which may lead to the depletion of their cash positions. Declines in client deposit levels may negatively affect our liquidity, as well as our net interest income.

The effects of the COVID-19 pandemic on economic and market conditions have increased demands on our liquidity as we meet our clients' needs. In addition, these adverse developments may negatively affect our capital and leverage ratios. We have temporarily suspended our stock repurchases and will reevaluate the program once the economic environment is more stable. We will continue to exercise prudent capital management and monitor the business environment.

Governmental authorities worldwide have taken unprecedented measures to stabilize the markets and support economic growth. The success of these measures is unknown and they may not be sufficient to address the negative effects of COVID-19 or avert severe and prolonged reductions in economic activity.

Other negative effects of COVID-19 that may impact our business, financial condition, liquidity, capital and results of operations cannot be predicted at this time, but it is likely that our business, financial condition, liquidity, capital and results of operations will continue to be adversely affected until the pandemic subsides and the U.S. economy begins to recover. Further, the COVID-19 pandemic may also have the effect of heightening many of the other risks described in the section entitled "Risk Factors" in our most recent Annual Report on Form 10-K and any subsequent Quarterly Report on Form 10-Q. Although the effects of the pandemic remain uncertain, we currently expect for the second half of 2020: on-balance sheet deposit growth, flat to slightly lower average loans, continued reduced activity in our core fees business and higher credit losses from sectors most impacted by efforts to contain COVID-19. Additionally, we anticipate that equity markets and IPO and M&A activity may be volatile in future quarters, causing volatility in investment banking and market-sensitive revenues. Even after the pandemic subsides, it is possible that the U.S. and other major economies will continue to experience a prolonged recession, which we expect would materially and adversely affect our business, financial condition, liquidity, capital and results of operations.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Recent Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

Stock repurchase activity during the three months ended June 30, 2020 was as follows:

Period ended	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of publicly announced programs	Maximum dollar value that may yet be purchased under the programs (1)
April 30, 2020	—	$ —	—	$ —
May 31, 2020	—	—	—	—
June 30, 2020	—	—	—	—
Total	—	$ —	244,223	$ 289,979,534

(1) On October 24, 2019, the Company announced that its Board of Directors had authorized a $350 million common stock repurchase program pursuant to which the Company may, from time to time and on or before the program's expiration date, repurchase shares of its outstanding common stock in the open market, in privately-negotiated transactions, or otherwise, subject to applicable laws and regulations. The extent to which the Company repurchases its shares, and the timing of such repurchases, will depend upon a variety of factors, including market conditions, regulatory requirements, availability of funds, and other relevant considerations, as determined by the Company. The Company may, in its discretion, begin, suspend or terminate repurchases at any time prior to the program's expiration, without any prior notice. Repurchases may also be made pursuant to a trading plan under Rule 10b5-1 under the Exchange Act, which would permit shares to be repurchased

when the Company might otherwise be precluded from doing so because of self-imposed trading blackout periods or other regulatory restrictions. The new stock repurchase program expires on October 29, 2020.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
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 - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL 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
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)					X

Note: Other instruments defining the rights of holders of the Company's long-term debt are omitted pursuant to Section(b)(4)(iii) of Item 601 of Regulation S-K. The Company hereby agrees to furnish copies of these instruments to the Securities and Exchange Commission upon request.

SIGNATURES

Pursuant to the requirements 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

Date: August 7, 2020

/s/ DANIEL BECK

Daniel Beck
Chief Financial Officer
(Principal Financial Officer)

SVB Financial Group

Date: August 7, 2020

/s/ KAREN HON

Karen Hon
Chief Accounting Officer
(Principal Accounting Officer)

EXHIBIT 31.1

RULE 13a-14(a)/15d-14(a) CERTIFICATION

I, Greg Becker, certify that:

1. I have reviewed this quarterly report on Form 10-Q of SVB Financial Group;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the periods covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 7, 2020

/s/ GREG BECKER

Greg Becker

President and Chief Executive Officer

(Principal Executive Officer)

EXHIBIT 31.2

RULE 13a-14(a)/15d-14(a) CERTIFICATION

I, Daniel Beck, certify that:

1. I have reviewed this quarterly report on Form 10-Q of SVB Financial Group;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the periods covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 7, 2020

/s/ DANIEL BECK

Daniel Beck

Chief Financial Officer

(Principal Financial Officer)

EXHIBIT 32.1

SECTION 1350 CERTIFICATIONS

I, Greg Becker, certify, pursuant to 18 U.S.C. Section 1350, that, to my knowledge, the quarterly report of SVB Financial Group on Form 10-Q for the quarterly period ended June 30, 2020, (i) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) that the information contained in such Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of SVB Financial Group.

Date: August 7, 2020

/s/ GREG BECKER

Greg Becker

President and Chief Executive Officer

(Principal Executive Officer)

I, Daniel Beck, certify, pursuant to 18 U.S.C. Section 1350, that, to my knowledge, the quarterly report of SVB Financial Group on Form 10-Q for the quarterly period ended June 30, 2020, (i) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) that the information contained in such Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of SVB Financial Group.

Date: August 7, 2020

/s/ DANIEL BECK

Daniel Beck

Chief Financial Officer

(Principal Financial Officer)