SVB FINANCIAL GROUP Form 10-Q November 09, 2018 Table of Contents

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 September 30, 2018

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 (I.R.S. Employer incorporation or organization) 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 x 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 x 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. (Check one):

Large accelerated filer x 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 x

At October 31, 2018, 53,250,854 shares of the registrant's common stock (\$0.001 par value) were outstanding. Available on the web at www.svb.com

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Glossary of Acronyms that may be used in this Report

AFS— Available-for-Sale

APIC — Additional Paid-in Capital

ASC— Accounting Standards Codification

ASU— Accounting Standards Update

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

OTTI— Other Than Temporary Impairment

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

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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)	September 30 2018),December 31, 2017
Assets		
Cash and cash equivalents	\$3,819,141	\$2,923,075
Available-for-sale securities, at fair value (cost of \$9,236,301 and \$11,131,008, respectively)	9,087,609	11,120,664
Held-to-maturity securities, at cost (fair value of \$15,372,238 and \$12,548,280, respectively)	15,899,726	12,663,455
Non-marketable and other equity securities	896,249	651,053
Total investment securities	25,883,584	24,435,172
Loans, net of unearned income	27,494,915	23,106,316
Allowance for loan losses	(285,713)(255,024)
Net loans	27,209,202	22,851,292
Premises and equipment, net of accumulated depreciation and amortization	121,890	128,682
Accrued interest receivable and other assets	1,105,917	876,246
Total assets	\$58,139,734	\$51,214,467
Liabilities and total equity		
Liabilities:		
Noninterest-bearing demand deposits	\$40,473,774	\$36,655,497
Interest-bearing deposits	8,122,337	7,598,578
Total deposits	48,596,111	44,254,075
Short-term borrowings	2,631,252	1,033,730
Other liabilities	1,146,109	911,755
Long-term debt	696,217	695,492
Total liabilities	53,069,689	46,895,052
Commitments and contingencies (Note 13 and Note 16)		
SVBFG stockholders' equity:		
Preferred stock, \$0.001 par value, 20,000,000 shares authorized; no shares issued and outstanding	_	_
Common stock, \$0.001 par value, 150,000,000 shares authorized; 53,250,255 shares and 52,835,188 shares outstanding, respectively	53	53
Additional paid-in capital	1,360,030	1,314,377
Retained earnings	3,672,696	2,866,837
Accumulated other comprehensive loss	(108,410)(1,472)
Total SVBFG stockholders' equity	4,924,369	4,179,795
Noncontrolling interests	145,676	139,620
Total equity	5,070,045	4,319,415
Total liabilities and total equity	\$58,139,734	\$51,214,467

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

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

	Septembe		Septembe	r 30,
(Dollars in thousands, except per share amounts)	2018	2017	2018	2017
Interest income:				
Loans	\$352,353	\$268,445	\$979,724	\$745,983
Investment securities:				
Taxable	142,075	109,443	403,702	294,768
Non-taxable	10,748	1,172	23,506	2,703
Federal funds sold, securities purchased under agreements to resell and	8,137	6,211	20,080	16,670
other short-term investment securities			,	ŕ
Total interest income	513,313	385,271	1,427,012	1,060,124
Interest expense:	0.040	2 2 2 4	40.400	6.040
Deposits	8,042	2,304	18,409	6,218
Borrowings	12,049	8,993	29,075	27,243
Total interest expense	20,091	11,297	47,484	33,461
Net interest income	493,222	373,974		1,026,663
Provision for credit losses	17,174	23,522	74,226	70,062
Net interest income after provision for credit losses	476,048	350,452	1,305,302	956,601
Noninterest income:				
Gains on investment securities, net	32,193	15,238	77,365	48,838
Gains on equity warrant assets, net	34,141	24,922	72,393	42,432
Foreign exchange fees	32,656	29,671	100,560	82,026
Credit card fees	24,121	20,270	68,739	56,099
Deposit service charges	19,588	14,508	56,081	43,046
Client investment fees	36,265	15,563	88,592	37,571
Lending related fees	10,675	15,404	30,938	32,874
Letters of credit and standby letters of credit fees	8,409	7,306	24,938	20,951
Other	12,022	15,896	38,671	41,128
Total noninterest income	210,070	158,778	558,277	404,965
Noninterest expense:	,	,	,	•
Compensation and benefits	195,437	153,263	543,198	449,412
Professional services	36,542	32,987	112,080	86,331
Premises and equipment	19,858	18,937	57,576	53,753
Net occupancy	13,694	12,660	40,598	35,437
Business development and travel	12,712	10,329	35,998	30,913
FDIC and state assessments	9,550	8,359	29,306	26,354
Correspondent bank fees	3,513	3,162	10,200	9,770
Other	18,139	18,064	51,645	54,670
Total noninterest expense	309,445	257,761	880,601	746,640
Income before income tax expense	376,673	251,469	982,978	614,926
Income tax expense	95,308	97,351	246,561	220,412
Net income before noncontrolling interests	281,365	154,118	736,417	394,514
Net income attributable to noncontrolling interests)(21,218)
Net income available to common stockholders		\$148,620		
Earnings per common share—basic	\$5.16	\$2.82	\$13.33	\$7.11
Earnings per common share—diluted	5.10	2.79	13.15	7.01
Lamings per common share—unucu	5.10	2.17	13.13	7.01

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

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

			Nine mont	
(Dollars in thousands)	2018	2017	2018	2017
Net income before noncontrolling interests	\$281,365	5 \$154,118	\$736,417	\$394,514
Other comprehensive loss, net of tax:				
Change in foreign currency cumulative translation gains and losses:				
Foreign currency translation (losses) gains	(3,259) 1,928	(5,337	4,463
Related tax benefit (expense)	905	(787	1,482	(1,821)
Change in unrealized gains and losses on available-for-sale securities:				
Unrealized holding (losses) gains	(24,902) 925	(98,032	(12,471)
Related tax benefit (expense)	6,994	(429	27,269	5,207
Reclassification adjustment for losses (gains) included in net income	_	101	_	(384)
(1)				· ·
Related tax (benefit) expense (1)		(41) —	157
Reclassification of unrealized gains on equity securities to retained			(40,316) —
earnings for ASU 2016-01 (1)			11 145	
Related tax expense (1)		_	11,145	_
Amortization of unrealized holding gains on securities transferred from available-for-sale to held-to-maturity	(1,777) (1,594	(3,915	(4,931)
Related tax benefit	494	641	1,085	1,984
Reclassification of stranded tax effect to retained earnings for ASU			(319	`
2018-02 (1)	_	_	(319) —
Other comprehensive loss, net of tax	(21,545) 744	(106,938)	(7,796)
Comprehensive income	259,820	154,862	629,479	386,718
Comprehensive income attributable to noncontrolling interests	(6,548) (5,498	(28,841)	(21,218)
Comprehensive income attributable to SVBFG	\$253,272	2 \$149,364	\$600,638	\$365,500

⁽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).

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

(Dollars in thousands)	Common Startes		Additional Paid-in unt Capital	Retained Earnings	Accumulate Other Comprehen Income (Loss)	od Total SVBFG sive Stockholders Equity	Noncontrol Interests	ling Total Equity
Balance at December 31, 2016	52,254,074	\$52	\$1,242,741	\$2,376,331	\$23,430	\$3,642,554	\$134,483	\$3,777,037
Common stock issued under employee benefit plans, net of restricted stock cancellations	458,742	1	14,191	_	_	14,192	_	14,192
Common stock issued under ESOP	10,838	_	2,094	_	_	2,094	_	2,094
Net income			_	373,296	_	373,296	21,218	394,514
Capital calls and				_	_	_	(18,216)	(18,216)
distributions, net							,	
Net change in unrealized gains and								
losses on AFS		—			(7,491)	(7,491)		(7,491)
securities, net of tax								
Amortization of								
unrealized holding								
gains on securities	_	_	_		(2,947)	(2,947)	_	(2,947)
transferred from AFS								
to HTM, net of tax								
Foreign currency								
translation	_		_		2,642	2,642	_	2,642
adjustments, net of tax								
Share-based								
compensation, net	_	_	35,473		_	35,473	_	35,473
Balance at September	70 700 674	4.72	4.604.400	***	4.7. 63.4		4.25.40	
30, 2017	52,723,654	\$53	\$1,294,499	\$2,749,627	\$15,634	\$4,059,813	\$137,485	\$4,197,298
Balance at December	52 925 199	¢ 52	¢1 214 277	\$2,866,837	\$ (1 472)	\$4,179,795	\$ 130,620	\$4,319,415
31, 2017	32,033,100	φ 33	φ1,514,577	\$2,600,637	ψ(1, 4 /2)	\$4,179,793	\$139,020	\$4,319,413
Cumulative								
adjustment for ASU		_		(5,802)		(5,802)		(5,802)
2014-09, net of tax (1)								
Cumulative adjustment for ASU				103,766	(29,171)	74,595		74,595
2016-01, net of tax (1)			_	103,700	(29,171)	74,393	_	74,393
Reclassification of								
stranded tax effect for	_	_	_	319	(319)	_	_	_
ASU 2018-02 (1)					,			
	405,395		9,108	_	_	9,108		9,108

Common stock issued under employee benefit plans, net of restricted stock cancellations									
Common stock issued under ESOP	9,672	_	2,577	_	_	2,577	_	2,577	
Net income	_		_	707,576		707,576	28,841	736,417	
Capital calls and distributions, net	_		_	_	_	_	(22,785)	(22,785)
Net change in unrealized gains and losses on AFS securities, net of tax	_	_	_	_	(70,763) (70,763) —	(70,763)
Amortization of unrealized holding gains on securities transferred from AFS to HTM, net of tax	_	_	_	_	(2,830) (2,830) —	(2,830)
Foreign currency translation adjustments, net of tax	_	_	_	_	(3,855) (3,855) —	(3,855)
Share-based compensation, net	_		33,968	_	_	33,968	_	33,968	
Balance at September 30, 2018	53,250,255	\$53	\$1,360,030	\$3,672,696	\$(108,410	\$4,924,369	\$145,676	\$5,070,045	5

⁽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).

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

	Nine months ended		
	September 3	30,	
(Dollars in thousands)	2018	2017	
Cash flows from operating activities:			
Net income before noncontrolling interests	\$736,417	\$394,514	
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for credit losses	74,226	70,062	
Changes in fair values of equity warrant assets, net of proceeds from exercises	(24,462) (29,666)
Changes in fair values of derivatives, net	2,964	8,214	
Gains on investment securities, net (1)	(77,365) (31,032)
Distributions of earnings from non-marketable and other equity securities (1)	54,605	38,965	
Depreciation and amortization	43,389	39,265	
Amortization of premiums and discounts on investment securities, net	(252) 2,609	
Amortization of share-based compensation	33,968	27,739	
Amortization of deferred loan fees	(94,771	(81,060)
Deferred income tax (benefit) expense	(16,532) 2,325	
Excess tax benefit from exercise of stock options and vesting of restricted shares	(17,543) (14,399)
Losses from the write-off of premises and equipment	7,117		
Other gains	_	(6,150)
Changes in other assets and liabilities:			
Accrued interest receivable and payable, net	(51,521) (26,092)
Accounts receivable and payable, net	1,697	4,120	
Income tax receivable and payable, net	(12,962	30,069	
Accrued compensation	5,505	(11,731)
Foreign exchange spot contracts, net	86,298	86,911	
Other, net	(46,874) 16,410	
Net cash provided by operating activities	703,904	521,073	
Cash flows from investing activities:			
Purchases of available-for-sale securities	(662,458) (2,420,741)
Proceeds from sales of available-for-sale securities	_	7,311	
Proceeds from maturities and paydowns of available-for-sale securities	2,529,666	2,434,039	
Purchases of held-to-maturity securities	(4,726,595) (3,812,782	(
Proceeds from maturities and paydowns of held-to-maturity securities	1,482,204	1,283,764	
Purchases of non-marketable and other securities	(56,435) (18,766)
Proceeds from sales and distributions of capital of non-marketable and other securities (1)	83,020	35,821	
Net increase in loans	(4,356,980) (2,263,600)
Purchases of premises and equipment	(28,718) (35,470)
Proceeds from sale of equity valuation services business		3,000	
Net cash used for investing activities	(5,736,296) (4,787,424	.)
Cash flows from financing activities:			
Net increase in deposits	4,342,036	5,832,165	
Net increase (decrease) in short-term borrowings	1,597,522	(507,828)
Principal payments of long-term debt	_	(46,235)
(Distributions to noncontrolling interests), net of contributions from noncontrolling	(22.795	(10.214	`
interests	(22,785) (18,216)
Proceeds from issuance of common stock, ESPP and ESOP	11,685	16,286	
Net cash provided by financing activities	5,928,458	5,276,172	

Net increase in cash and cash equivalents	896,066	1,009,821
Cash and cash equivalents at beginning of period	2,923,075	2,545,750
Cash and cash equivalents at end of period	\$3,819,141	\$3,555,571
Supplemental disclosures:		
Cash paid during the period for:		
Interest	\$54,681	\$41,324
Income taxes	277,388	190,706
Noncash items during the period:		
Changes in unrealized gains and losses on available-for-sale securities, net of tax	\$(70,763	\$(7,491)
Distributions of stock from investments	4,368	5,360

During the first quarter of 2018 we adopted ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. This guidance was adopted on a retrospective basis and impacted the (1) presentation between investing and operating activities related to distributions and net gains from our nonmarketable and other securities portfolio. See 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).

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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 variety of banking and financial products and services to support our clients of all sizes and stages throughout their life cycles. In these notes to our consolidated financial statements, when we refer to "SVB 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 nine months ended September 30, 2018 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, 2017 ("2017 Form 10-K").

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 2017 Form 10-K.

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, the adequacy of the allowance for loan losses and allowance for unfunded credit commitments, and the recognition and measurement of income tax assets and liabilities.

Principles of Consolidation and Presentation

Our 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) 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.

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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.

Adoption of New Accounting Standards

In May 2014, the FASB issued a new accounting standard update (ASU 2014-09, Revenue from Contracts with Customers (Topic 606)), which provides revenue recognition guidance that is intended to create greater consistency with respect to how and when revenue from contracts with customers is shown in the income statement. The guidance requires that revenue from contracts with customers be recognized when transfer of control over goods or services is passed to customers in the amount of consideration expected to be received. Subsequent Accounting Standard Updates have been issued clarifying the original pronouncement (ASU 2016-08, ASU 2016-10, ASU 2016-12 and ASU 2016-20).

On January 1, 2018, we adopted the new accounting standard ASU 2014-09, Revenue from Contracts with Customers and all the related amendments ("new revenue standard," "ASC 606" or "ASU 2014-09") using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. We elected to apply the practical expedient which allows us to expense costs related to obtaining contracts as incurred because the amortization period would have been one year or less. We recognized the cumulative effect of initially applying the new revenue standard as an adjustment to the opening balance of retained earnings. 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 scoping exercise to determine the revenue streams that are within the scope of this guidance. The scope of this guidance explicitly excludes net interest income, including interest income earned from our loan and fixed income securities portfolios, as well as certain other noninterest income earned from our lending-, investment- and derivative-related activities. Based on our completed assessment, we did not identify any material changes to the timing or the amounts of our revenue recognition, however, we identified a change in the timing of recognizing fund management fees in other noninterest income for a portion of our SVB Capital funds. Fund management fees for these certain SVB Capital funds will now be recognized at the time of distribution which typically occurs later in the life of the fund than had been previously recognized. The cumulative adjustment to retained earnings associated with this change was \$5.8 million, net of tax, with an immaterial impact to our net income on an ongoing basis. The impacts to net income as a result of applying the new revenue standard were decreases of \$0.5 million and \$1.4 million for the three and nine months ended September 30, 2018, respectively. 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 nine months ended September 30, 2018, changes in our contract assets, contract liabilities and receivables were not material. Additionally, revenues recognized during the three and nine months ended September 30, 2018 that were included in the corresponding contract liability balance at the beginning of the period were not material.

The cumulative effect of the changes to our consolidated balance sheets at January 1, 2018, for the adoption of the new revenue standard were as follows:

(Dollars in thousands)	Balance at December 31, 2017	Adjustment Due to Adoption of ASC 606	at
Accrued interest receivable and other assets:			
Accounts receivable	\$ 55,946	\$ (34,340	\$ 21,606
Other liabilities:			
Deferred revenue	27,057	(26,321	736
Current taxes payable	4,675	(2,217	2,458
Stockholders' Equity:			
Retained earnings	2,866,837	(5,802	2,861,035

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In accordance with the new revenue standard requirements, the disclosure of the impact of adoption on our consolidated balance sheets at September 30, 2018 and our statements of income for the three and nine months ended September 30, 2018, were as follows:

	September 30, 2018			
(Dollars in thousands)	As Reported	Balances Without Adoption of ASC 606	Effect of Change Higher/(Lo	wer)
Accrued interest receivable and other assets:				
Accounts receivable	\$61,090	\$100,470	\$ (39,380)
Other liabilities:				
Deferred fees	556	28,379	(27,823)
Current taxes payable (receivable) Stockholders' Equity:	2,002	(694)	2,696	
Retained earnings	3 672 60	6,678,020	(5.324)
Retained carnings			ed Septembe	
	30, 20		cu septembe	∠1
	30, 20	Balances		
		Without	Effect of	
(Dollars in thousands)	As	Adoption and ASC	Change	
(Donars in thousands)	Report	of ASC	Higher/(Lo	wer)
		606	Tingine i / (Le	, w C1)
Other noninterest income:				
Fund management fees	\$5,479	\$ 6,087	\$ (608)
Income tax expense		95,463	(155)
	, , , , , ,	,	(,
Net Income available to common stockholders	274,81	7275,270	(453)
Diluted earnings per share	5.10	5.11	(0.01)
		nonths ende	d September	r 30,
	2018	5.		
		Balances		
(D. II	As	Without	Effect of	
(Dollars in thousands)	Report	Adoption of ASC	n Change	`
	•	of ASC 606	Higher/(L	ower)
Other noninterest income:		000		
Fund management fees	\$17.1/	14 \$ 19,001	\$ (1,857)
Income tax expense		51 247,040	(479)
meome tax expense	270,30	,, 271,0 1 0	(7/)	,
Net Income available to common stockholders	s 707 . 57	6 708,954	(1,378)
Diluted earnings per share	13.15	13.18	(0.03)
- n				

In February 2018, the FASB issued a new accounting standard update (ASU 2018-02, Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income (ASU "2018-02")) to address certain stranded income tax effects in accumulated other comprehensive income ("AOCI") resulting from H.R.1, known as the Tax Cuts and Jobs Act (the "TCJ Act"). ASU 2018-02 changed current accounting whereby an entity may elect to reclassify the stranded tax effect from AOCI to retained earnings in each period in which the effect of the change in the U.S. federal corporate income tax rate in the TCJ Act (or portion thereof) is recorded. ASU 2018-02 is effective for periods beginning after December 15, 2018 and early adoption is

permitted. We have elected to early adopt ASU 2018-02 and reclassified approximately \$0.3 million from accumulated other comprehensive income to retained earnings within our consolidated statements of stockholders' equity in the first quarter of 2018.

On January 1, 2018, we adopted the new accounting standard update ASU 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities (Topic 825), which addresses certain aspects of recognition, measurement, presentation and disclosure of financial instruments. This guidance requires equity investments (except those accounted for under the equity method of accounting) to be measured at fair value with changes in fair value recognized in net income. We adopted this guidance using the modified retrospective method and our equity investments carried at cost with readily determinable fair values were re-measured at fair value and the difference between cost and fair value was recorded as a cumulative-effect adjustment to opening retained earnings as of January 1, 2018. The adjustment to opening retained earnings for these investments was \$74.6 million, net of tax, with subsequent changes in the fair value of these equity securities recorded as unrealized gains or losses in

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our consolidated statements of income. Additionally, in accordance with this guidance, net unrealized gains of \$29.2 million, net of tax, included in accumulated other comprehensive income on January 1, 2018, related to our previously reported available-for-sale equity securities, were reclassified as an adjustment to retained earnings. Subsequent changes in the fair value of these equity securities were recorded as unrealized gains or losses in our consolidated statements of income. Furthermore, for purposes of disclosing the fair value of loans carried at amortized cost, our valuation methodology was updated to conform to an "exit price" concept as required by the standard update, resulting in an immaterial change in the fair value.

In August 2016, the FASB issued a new accounting standard update (ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments), which clarifies the guidance on eight specific cash flow issues. We adopted the new accounting standard, specifically as it relates to distributions from our equity method investments, on January 1, 2018. We elected to adopt the nature of distribution approach and applied the guidance retrospectively. The new guidance had an immaterial impact on the presentation between investing and operating activities within our statements of cash flows related to distributions and net gains from our nonmarketable and other securities portfolio.

In November 2016, the FASB issued a new accounting standard update (ASU 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash), which requires that a statement of cash flows explains the change during the period in the total cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning of period and end of period total amounts shown on the statement of cash flows. Previous to the update, there had been some diversity in practice. Given that we had already classified restricted cash such as cash reserves at the Federal Reserve as part of cash and cash equivalents on the cash flow statement, the update had no impact on how we were already reporting and presenting our statement of cash flows.

Recent Accounting Pronouncements

In February 2016, the FASB issued a new accounting standard update (ASU 2016-02, Leases (Topic 842)), which will require for all operating leases the recognition of a right-of-use asset and a corresponding lease liability, in the statement of financial position. The lease cost will be allocated over the lease term on a straight-line basis. There were further amendments, including practical expedients, with the issuance of ASU 2018-01, "Leases (Topic 842): Land Easement Practical Expedient for Transition to Topic 842" in January 2018. In July 2018 the FASB issued ASU No. 2018-11, "Leases (Topic 842): Targeted Improvements," which provides us with the option to apply the new leasing standard to all open leases as of the adoption date, on a prospective basis. This guidance will be effective on January 1, 2019, with early adoption permitted. We plan to adopt the lease accounting guidance on January 1, 2019, on a prospective basis. We intend to elect the transition "package of expedients" which will result in continuing to account for existing leases for which the commencement date is before January 1, 2019, in accordance with Leases (Topic 840) throughout the lease term, including periods after adoption of the new guidance. We expect the adoption of this standard to have an impact of less than one percent of total assets and liabilities on our consolidated balance sheets reflective of the recognition of right-of-use assets and related lease liabilities associated predominantly with noncancelable operating leases. In addition, we do not expect the adoption of this guidance to have a material impact on our consolidated statements of income.

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 expected credit losses over the life of the loan and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. This guidance will be effective January 1, 2020, on a modified retrospective approach, with early adoption permitted, but not before January 1, 2019. We currently have a project team in place and subject matter experts to assist with our review of key interpretive issues and the assessment of our existing credit loss forecasting models and processes against the new guidance to determine what modifications may be required. We are currently evaluating the impact this guidance will have on our financial position, results of operation and stockholders' equity.

In August 2017, the FASB issued a new accounting standard update (ASU 2017-12, Targeted Improvements to Accounting for Hedging Activities (Topic 815)), which better aligns an entity's risk management activities and financial reporting for hedging relationships through changes to the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results. The targeted improvements in the ASU will allow increased flexibility to structure hedges of fixed rate instruments and floating rate instruments. Application of the ASU is expected to reduce the amount of ineffectiveness as the revised accounting guidance will better reflect the economics of risk management activities and will also reduce the volatility associated with foreign currency hedging. The ASU requires the hedging instrument to be presented in the same line item as the hedged item and requires expanded disclosures. There were further amendments, with the issuance of ASU 2018-16, "Derivatives and Hedging (Topic 815)," which provides us with the option to use the Overnight Index Swap ("OIS") rate based on the Secured Overnight Financing Rate ("SOFR") as a U.S. benchmark interest rate for purposes of applying hedge accounting under Topic 815. This guidance will be effective January 1, 2019, with early adoption permitted. We plan to early adopt this

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guidance in the fourth quarter of 2018, effective October 1, 2018. The accounting standard will not have a material impact on our consolidated financial position, results of operations or the disclosures in our Notes to the Consolidated Financial Statements.

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. This guidance will be effective January 1, 2020, with early adoption permitted. This guidance will not have an impact on our consolidated financial position or results of operations, and we do not expect the adoption of this standard to have a material impact on the disclosures in our Notes to the Consolidated Financial Statements.

Reclassifications

Certain prior period amounts, primarily related to the adoption of new accounting guidance, have been reclassified to conform to current period presentations.

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 nine months ended September 30, 2018 and 2017:

		111100	.1
		months	months
		ended	ended
		September	September
		30,	30,
(Dollars in thousands)	Income Statement Location	2012/017	2028017
Reclassification adjustment for losses (gains) included in net income (1)	Gains on investment securities, net	\$ -\$ 101	\$-\$(384)
Related tax (benefit) expense (1)	Income tax expense	— (41)	<u> </u>
Total reclassification adjustment for losses (gains) included in net income, net of tax (1)		\$ -\$ 60	\$-\$(227)

⁽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.

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Three

Nine

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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 units 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 nine months ended September 30, 2018 and 2017:

Three mo	nths ended	Nine mon	Nine months ended		
September 30,		Septembe	r 30,		
2018	2017	2018	2017		
\$274,817	\$148,620	\$707,576	\$373,296		
53,235	52,705	53,062	52,530		
383	343	404	381		
301	257	334	319		
53,919	53,305	53,800	53,230		
\$5.16	\$2.82	\$13.33	\$7.11		
5.10	2.79	13.15	7.01		
	September 2018 \$274,817 \$3,235 \$383 \$301 \$53,919 \$5.16	September 30, 2018 2017 \$274,817 \$148,620 53,235 52,705 383 343 301 257 53,919 53,305 \$5.16 \$2.82	2018 2017 2018 \$274,817 \$148,620 \$707,576 53,235 52,705 53,062 383 343 404 301 257 334 53,919 53,305 53,800 \$5.16 \$2.82 \$13.33		

The following table summarizes the weighted-average common shares excluded from the diluted EPS calculation due to the antidilutive effect for the three and nine months ended September 30, 2018 and 2017:

	Three		Nine		
	mon	ths	months		
	ende	d	ended		
	Septe	ember	September		
	30,		30,		
(Shares in thousands)	2018	2017	2018	2017	
Stock options	86	112	49	61	
Restricted stock units	5	5	71	2	
Total	91	117	120	63	

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Consolidated Statement of Changes in Equity

The following table summarizes the changes in our consolidated equity for the three months ended September 30, 2018 and 2017:

2018 and 2017:									
	Common St	tock	Additional		Accumulated Total Other SVBFG Noncontrol			ılling	
(Dollars in thousands)	Shares	Amo	Paid-in unt Capital	Earnings	Comprehensive Stockholders' Income (Loss)		Noncontrolling Total Equi		y
Balance at June 30, 2017	52,684,159	\$ 53	\$1,283,485	\$2,601,007	\$14,890	\$3,899,435	\$140,600	\$4,040,035	
Common stock issued									
under employee benefit plans, net of	39,495		2,370	_	_	2,370		2,370	
restricted stock	57,175		2,370			2,570		2,3 7 0	
cancellations Net income	_	_	_	148,620	_	148,620	5,498	154,118	
Capital calls and				,				(0.610	`
distributions, net	_	_	_	_	_		(0,013)	(0,013)
Net change in unrealized gains and									
losses on AFS	_		_	_	556	556	_	556	
securities, net of tax									
Amortization of unrealized holding									
gains on securities	_		_	_	(953) (953		(953)
transferred from AFS					· ·				
to HTM, net of tax									
Foreign currency translation	_	_	_	_	1,141	1,141	_	1,141	
adjustments, net of tax					,	,		,	
Share-based	_	_	8,644	_	_	8,644	_	8,644	
compensation, net Balance at September									
30, 2017	52,723,654	\$ 53	\$1,294,499	\$2,749,627	\$15,634	\$4,059,813	\$137,485	\$4,197,298	
Balance at June 30, 2018	53,210,627	\$ 53	\$1,346,586	\$3,397,879	\$(86,865)	\$4,657,653	\$147,188	\$4,804,841	
Common stock issued									
under employee benefit plans, net of	39,628	_	1,943	_	_	1,943	_	1,943	
restricted stock	37,020		1,743			1,545		1,743	
cancellations									
Net income Capital calls and	_		_	274,817	_	274,817	6,548	281,365	
distributions, net	_		_	_	_		(8,060)	(8,060)
Net change in									
unrealized gains and	_	_	_	_	(17,908	(17,908)	_	(17,908)
losses on AFS securities, net of tax									
-, 	_	_	_	_	(1,283) (1,283		(1,283)

Amortization of									
unrealized holding									
gains on securities									
transferred from AFS									
to HTM, net of tax									
Foreign currency									
translation					(2,354) (2,354	· —	(2,354)
adjustments, net of tax									
Share-based	_		11,501			11,501		11,501	
compensation, net			11,501			11,501		11,501	
Balance at September	53 250 255	\$ 53	\$1,360,030	\$3 672 696	\$(108.410	\$4,924,369	\$145,676	\$5,070,045	5
30, 2018	33,230,233	Ψυυ	Ψ1,500,050	Ψ3,072,070	Ψ(100,110)) ψ 1,52 1,505	Ψ115,070	Ψ5,070,010	,
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3. Share-Based Compensation

For the three and nine months ended September 30, 2018 and 2017, we recorded share-based compensation and related tax benefits as follows:

	Three model and segment of the segme		Nine months ended September 30,	
(Dollars in thousands)	2018	2017	2018	2017
Share-based compensation expense	\$11,501	\$8,644	\$33,968	\$27,739
Income tax benefit related to share-based compensation expense	(2,895)	(3,154)	(7,955)	(9,518)
Unreasonized Companyation Events				

Unrecognized Compensation Expense

As of September 30, 2018, unrecognized share-based compensation expense was as follows:

Weighted Average Expected

(Dollars in thousands)	Unrecognized Expense	Recognition Period - in Years
Stock options	\$ 13,525	2.91
Restricted stock units	73,037	2.74

Total unrecognized share-based compensation expense \$ 86,562

Share-Based Payment Award Activity

The table below provides stock option information related to the 2006 Equity Incentive Plan for the nine months ended September 30, 2018:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life - in Years	Aggregate Intrinsic Value of In-The- Money Options
Outstanding at December 31,	808,049	\$ 105.68		
2017	000,049	\$ 105.06		
Granted	89,616	305.71		
Exercised	(191,585)	83.37		
Forfeited	(9,498)	187.76		
Expired	(2,337)	60.37		
Outstanding at September 30, 2018	694,245	136.68	3.76	\$ 120,932,288
Vested and expected to vest at September 30, 2018	673,674	134.25	3.70	118,982,041
Exercisable at September 30, 2018	415,993	99.63	2.66	87,856,349

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 \$310.83 as of September 30, 2018. The total intrinsic value of options exercised during the three and nine months ended September 30, 2018 was \$8.5 million and \$39.5 million, respectively, compared to \$3.8 million and \$25.8 million for the comparable 2017 periods.

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The table below provides information for restricted stock units under the 2006 Equity Incentive Plan for the nine months ended September 30, 2018:

		Weighted
	Shares	Average
		Grant Date Fair
		Value
Nonvested at December 31, 2017	637,667	\$ 135.86
Granted	193,405	302.53
Vested	(213,944)	130.20
Forfeited	(37,080)	170.97
Nonvested at September 30, 2018	580,048	191.28

^{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 our investments in qualified affordable housing projects.

The following table presents the carrying amounts and classification of significant variable interests in consolidated and unconsolidated VIEs as of September 30, 2018 and December 31, 2017:

(Dollars in thousands)	Consolidated VIEs	Unconsolidated VIEs	Maximum Exposure to Loss in Unconsolidated VIEs
September 30, 2018:			
Assets:	ф. 5. 47 0	Φ.	ф
Cash and cash equivalents	\$ 5,470	\$ —	\$ —
Non-marketable and other equity securities (1)	212,514	524,812	524,812
Accrued interest receivable and other assets	298		_
Total assets	\$ 218,282	\$ 524,812	\$ 524,812
Liabilities:			
Other liabilities (1)	680	166,867	_
Total liabilities	\$ 680	\$ 166,867	\$ —
December 31, 2017:			
Assets:			
Cash and cash equivalents	\$ 6,674	\$ —	\$ —
Non-marketable and other equity securities (1)	190,562	346,097	346,097
Accrued interest receivable and other assets	365	_	
Total assets	\$ 197,601	\$ 346,097	\$ 346,097
Liabilities:	+ -> , ,	+	+
Other liabilities (1)	990	100,891	_
Total liabilities	\$ 990	\$ 100,891	\$
Total Habilities	Ψ //0	ψ 100,091	ψ —

Included in our unconsolidated non-marketable and other equity securities portfolio at September 30, 2018 and December 31, 2017 are investments in qualified affordable housing projects of \$261.7 million and \$174.2 million, respectively, and related other liabilities consisting of unfunded credit commitments of \$166.9 million and \$100.9 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 investments in qualified affordable housing projects. A majority of these investments are through third- party funds held by SVB Financial 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

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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 13—"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 September 30, 2018, our exposure to loss with respect to the consolidated VIEs is limited to our net assets of \$217.6 million and our exposure to loss for our unconsolidated VIEs is equal to our investment in these assets of \$524.8 million.

5. Cash and Cash Equivalents

The following table details our cash and cash equivalents at September 30, 2018 and December 31, 2017:

(Dollars in thousands)	September	December
(Donars in thousands)	30, 2018	31, 2017
Cash and due from banks (1)	\$3,697,018	\$2,672,290
Securities purchased under agreements to resell (2)	119,181	247,876
Other short-term investment securities	2,942	2,909
Total cash and cash equivalents	\$3,819,141	\$2,923,075

At September 30, 2018 and December 31, 2017, \$2.1 billion and \$0.6 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 \$1.1 billion at both September 30, 2018 and December 31, 2017.

At September 30, 2018 and December 31, 2017, securities purchased under agreements to resell were collateralized by U.S. Treasury securities and U.S. agency securities with aggregate fair values of \$124.5 million and \$252.8 million, respectively. None of these securities were sold or repledged as of September 30, 2018 and December 31, 2017.

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 as well as public equity securities held as a result of equity warrant assets exercised.

Available-for-Sale Securities

The components of our available-for-sale investment securities portfolio at September 30, 2018 and December 31, 2017 are as follows:

	September 30, 2018				
(Dollars in thousands)	~	~ .	Unrealized Lagger	,	
Available-for-sale securities, at fair value:	Cost	Gains	Losses	Value	

U.S. Treasury securities U.S. agency debentures Residential mortgage-backed securities:	\$5,560,828 1,357,069	\$ 117 —	\$(59,071) (10,397)	\$5,501,874 1,346,672
Agency-issued collateralized mortgage obligations—fixed rate Agency-issued collateralized mortgage obligations—variable ra	, ,	3 1,297	` ' '	1,920,541 318,522
Total available-for-sale securities	\$9,236,301	*	\$(150,109)	*
	December 3	1, 2017		
(Dallars in thousands)	Amortized	Unrealized	d Unrealized	Carrying
(Dollars in thousands)	Cost	Gains	Losses	Value
Available-for-sale securities, at fair value:				
U.S. Treasury securities	\$6,865,068	\$ 1,113	\$(25,679)	\$6,840,502
U.S. agency debentures	1,569,195	3,569	(5,636)	1,567,128
Residential mortgage-backed securities:			,	
Agency-issued collateralized mortgage obligations—fixed rate	2,292,311	258	(25,534)	2,267,035
Agency-issued collateralized mortgage obligations—variable ra	te372,481	1,375	(126)	373,730
Equity securities	31,953	40,525	(209)	72,269
Total available-for-sale securities	\$11,131,008	\$ 46,840	\$(57,184)	\$11,120,664
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The following table summarizes sale activity of available-for-sale securities during the three and nine months ended September 30, 2018 and 2017 as recorded in the line item "Gains on investment securities, net," a component of noninterest income:

	Three	Nine
	months	months
	ended	ended
	September	September
	30,	30,
(Dollars in thousands)	20 28 17	20 28 17
Sales proceeds	\$-\$2,287	\$-\$7,311
Net realized gains and losses:		
Gross realized gains	38	-1,131
Gross realized losses	— (139)	— (747)
Net realized (losses) gains	\$ -\$ (101)	\$-\$384

The following tables summarize our unrealized losses on our available-for-sale securities portfolio into categories of less than 12 months, or 12 months or longer as of September 30, 2018 and December 31, 2017:

-	September 3 Less than 12	-		12 months o	or longer	Total		
(Dollars in thousands)	Fair Value of Investments		ed	Fair Value of Investments		Fair Value of Investments		d
Available-for-sale securities:								
U.S. Treasury securities	\$3,915,282	\$(46,503)	\$1,438,839	\$(12,568)	\$5,354,121	\$(59,071)
U.S. agency debentures	838,609	(4,615)	508,062	(5,782	1,346,671	(10,397)
Residential mortgage-backed securities:								
Agency-issued collateralized mortgage obligations—fixed rate	812,726	(30,350)	1,103,803	(50,160	1,916,529	(80,510)
Agency-issued collateralized mortgage obligations—variable rate	14,076	(5)	49,729	(126	63,805	(131)
Total temporarily impaired securities (1)	\$5,580,693	\$(81,473)	\$3,100,433	\$(68,636)	\$8,681,126	\$(150,109))

As of September 30, 2018, we identified a total of 265 investments that were in unrealized loss positions, of which 109 investments totaling \$3.1 billion with unrealized losses of \$68.6 million have been in an impaired position for a period of time greater than 12 months. As of September 30, 2018, we do not intend to sell any of our impaired securities prior to recovery of our adjusted 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 adjusted cost basis. Based on our analysis as of September 30, 2018, we deem all impairments to be temporary, and therefore changes in value for our temporarily impaired securities as of the same date are included in other comprehensive income. Market valuations and impairment analyses on assets in the available-for-sale securities portfolio are reviewed and monitored on a quarterly basis.

	December 3	31, 2017					
	Less than 12	2 months	12 months	s or longer	Total		
(Dollars in thousands)	Fair Value	o U nrealized	d Fair Value Unrealized Fair Value of Unreali				
(Donars in thousands)	Investments	Losses	Investmer	ntkosses	Investments Losses		
Available-for-sale securities:							
U.S. Treasury securities	\$5,968,914	\$(23,397)	\$323,966	\$ (2,282)	\$6,292,880	\$(25,679)	
U.S. agency debentures	736,541	(2,289	336,196	(3,347)	1,072,737	(5,636)	
Residential mortgage-backed securities:							
Agency-issued collateralized mortgage obligations—fixed rate	2,193,277	(25,534) —	_	2,193,277	(25,534)	

Agency-issued collateralized mortgage obligations—variable rate	13,843	(3) 53,186	(123)	67,029	(126)
Equity securities	624	(209) —			624	(209)
Total temporarily impaired securities (1)	\$8,913,199	\$(51,432	2) \$713,348	\$ (5,752)	\$9,626,547	\$(57,184)
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As of December 31, 2017, we identified a total of 268 investments that were in unrealized loss positions, of which (1)46 investments totaling \$713.3 million with unrealized losses of \$5.8 million have been in an impaired 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 September 30, 2018 by the remaining contractual principal maturities. For U.S. Treasury securities and U.S. agency debentures, 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.

	September 3	30, 2018			
(Dollars in thousands)	Total	One Year or Less	After One Year to Five Years	After Five Years to Ten Years	After Ten Years
U.S. Treasury securities	\$5,501,874	\$2,016,438	\$3,047,620	\$437,816	\$
U.S. agency debentures	1,346,672	653,271	693,401		
Residential mortgage-backed securities:					
Agency-issued collateralized mortgage obligations—fixed rate	1,920,541	_	_	29,113	1,891,428
Agency-issued collateralized mortgage obligations—variable rate	318,522	_	_	_	318,522
Total	\$9,087,609	\$2,669,709	\$3,741,021	\$466,929	\$2,209,950
Held-to-Maturity Securities					

The components of our held-to-maturity investment securities portfolio at September 30, 2018 and December 31, 2017 are as follows:

	September 30			
(Dollars in thousands)	Amortized	Unrealized	Unrealized	Fair Value
(Donars in thousands)	Cost	Gains	Losses	raii vaiue
Held-to-maturity securities, at cost:				
U.S. agency debentures (1)	\$641,134	\$ 85	\$(18,482)	\$622,737
Residential mortgage-backed securities:				
Agency-issued mortgage-backed securities	8,333,088	2	(276,748)	8,056,342
Agency-issued collateralized mortgage obligations—fixed rate	2,329,065		(98,559)	2,230,506
Agency-issued collateralized mortgage obligations—variable ra	t223,374	667	(32)	224,009
Agency-issued commercial mortgage-backed securities	2,795,952		(78,688)	2,717,264
Municipal bonds and notes	1,577,113	161	(55,894)	1,521,380
Total held-to-maturity securities	\$15,899,726	\$ 915	\$(528,403)	\$15,372,238

⁽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.

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	December 31, 2017				
(Dollars in thousands)	Amortized	Unrealized	Unrealized	Fair Value	
(Donars in thousands)	Cost	Gains	Losses	Tan value	
Held-to-maturity securities, at cost:					
U.S. agency debentures (1)	\$659,979	\$ 3,167	\$(1,601)	\$661,545	
Residential mortgage-backed securities:					
Agency-issued mortgage-backed securities	6,304,969	4,854	(43,528)	6,266,295	
Agency-issued collateralized mortgage obligations—fixed rate	2,829,979	23	(54,372)	2,775,630	
Agency-issued collateralized mortgage obligations—variable rat	£255,782	733	(34)	256,481	
Agency-issued commercial mortgage-backed securities	1,868,985	694	(25,563)	1,844,116	
Municipal bonds and notes	743,761	3,452	(3,000)	744,213	
Total held-to-maturity securities	\$12,663,455	\$ 12,923	\$(128,098)	\$12,548,280	

⁽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.

The following tables summarize our unrealized losses on our held-to-maturity securities portfolio into categories of less than 12 months and 12 months or longer as of September 30, 2018 and December 31, 2017:

	September 3	30, 2018						
	Less than 12 months		12 months of	or longer	Total			
(Dollars in thousands)	Fair Value of Investments			Fair Value of Investments		Fair Value of Investments		d
Held-to-maturity securities:								
U.S. agency debentures	\$549,916	\$(14,744)	\$61,635	\$(3,738)	\$611,551	\$(18,482)
Residential mortgage-backed securities:								
Agency-issued mortgage-backed securities	5,514,402	(155,580)	2,541,848	(121,168	8,056,250	(276,748)
Agency-issued collateralized mortgage obligations—fixed rate	77,011	(2,285)	2,153,494	(96,274	2,230,505	(98,559)
Agency-issued collateralized mortgage obligations—variable rate	3,504	(1)	8,445	(31	11,949	(32)
Agency-issued commercial mortgage-backed securities	1,595,146	(30,149)	1,122,118	(48,539	2,717,264	(78,688)
Municipal bonds and notes	1,429,117	(51,806)	83,486	(4,088	1,512,603	(55,894)
Total temporarily impaired securities (1)	\$9,169,096	\$(254,565)	\$5,971,026	\$(273,838)	\$15,140,122	\$(528,403	5)

As of September 30, 2018, we identified a total of 1,433 investments that were in unrealized loss positions, of which 454 investments totaling \$6.0 billion with unrealized losses of \$273.8 million have been in an impaired position for a period of time greater than 12 months. As of September 30, 2018, we do not intend to sell any of our impaired securities prior to recovery of our adjusted 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 adjusted cost basis, which is consistent with our classification of these securities. Based on our analysis as of September 30, 2018, we deem all impairments to be temporary. Market valuations and impairment analyses on assets in the held-to-maturity securities portfolio are reviewed and monitored on a quarterly basis.

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(Dollars in thousands)	December 3 Less than 12 Fair Value of Investments	2 months o £ Inrealized	12 months of Fair Value of Investments	o £ Inrealized	Total Fair Value of Investments		ł
Held-to-maturity securities:							
U.S. agency debentures	\$104,688	\$(1,601) \$—	\$ —	\$104,688	\$(1,601)
Residential mortgage-backed securities:							
Agency-issued mortgage-backed securities	4,270,377	(34,092	408,913	(9,436)	4,679,290	(43,528)
Agency-issued collateralized mortgage	1,011,709	(13,631	1,741,614	(40,741)	2,753,323	(54,372)
obligations—fixed rate	1,011,702	(10,001	, 1,,,11,011	(10,7.12)	2,700,020	(6.,672	,
Agency-issued collateralized mortgage			9,812	(34)	9,812	(34)
obligations—variable rate			>,012	(34)	>,012	(54	,
Agency-issued commercial	979,361	(11,566	773,712	(13,997)	1,753,073	(25,563)
mortgage-backed securities	777,301	(11,500) 113,112	(13,777)	1,733,073	(23,303	,
Municipal bonds and notes	344,796	(2,103)	32,844	(897)	377,640	(3,000)
Total temporarily impaired securities (1)	\$6,710,931	\$(62,993	\$2,966,895	\$(65,105)	\$9,677,826	\$(128,098)

As of December 31, 2017, we identified a total of 753 investments that were in unrealized loss positions, of which (1)237 investments totaling \$3.0 billion with unrealized losses of \$65.1 million have been in an impaired position for a period of time greater than 12 months.

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The following table summarizes the remaining contractual principal maturities on fixed income investment securities classified as held-to-maturity as of September 30, 2018. For U.S. agency debentures, 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 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.

	September 30), 2018								
	Total		One Ye or Less	ear	After One Five Year		After Five Y Ten Years	Years to	After Ten Years	
(Dollars in thousands)	Amortized Cost	Fair Value	Amorti: Cost	z Ed ir Value	Amortized Cost	lFair Value	Amortized Cost	Fair Value	Amortized Cost	Fair
U.S. agency debentures Residential mortgage-backed securities:	\$641,134	\$622,737	\$ —	\$ —	\$104,550	\$102,498	\$536,584	\$520,239	\$—	\$—
Agency-issued mortgage-backed securities Agency-issued collateralized	8,333,088	8,056,342	_	_	179,847	174,664	859,233	821,883	7,294,008	7,05
mortgage obligations—fixed rate Agency-issued	2,329,065	2,230,506	_	_	_	_	474,668	452,428	1,854,397	1,77
collateralized mortgage obligations—varia rate	223,374 lble	224,009	_	_	_	_	_	_	223,374	224
Agency-issued commercial mortgage-backed securities	2,795,952	2,717,264	_	_	_	_	_	_	2,795,952	2,71
Municipal bonds and notes	1,577,113	1,521,380	8,376	8,373	74,518	73,331	256,453	245,277	1,237,766	1,19
Total	\$15,899,726	\$15,372,238	\$8,376	\$8,373	\$358,915	\$350,493	\$2,126,938	\$2,039,827	\$13,405,497	\$12

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Non-marketable and Other Equity Securities

The components of our non-marketable and other equity securities portfolio at September 30, 2018 and December 31, 2017 are as follows:

	December
30, 2018	31, 2017
\$126,467	\$128,111
208,953	98,548
25,253	27,680
30,460	310
112,537	89,809
5,241	21,183
125,632	111,198
261,706	174,214
\$896,249	\$651,053
	\$126,467 208,953 25,253 30,460 112,537 5,241 125,632 261,706

The following table shows the amounts of venture capital and private equity fund investments held by the (1) following consolidated funds and our ownership percentage of each fund at September 30, 2018 and December 31, 2017 (fair value accounting):

	Septembe	er 30, 2018	December	r 31, 2017
(Dollars in thousands)	Amount	Ownership %	Amount	Ownership %
Strategic Investors Fund, LP	\$12,733	12.6 %	\$14,673	12.6 %
Capital Preferred Return Fund, LP	56,453	20.0	54,147	20.0
Growth Partners, LP	56,280	33.0	58,372	33.0
CP I, LP	1,001	10.7	919	10.7
Total consolidated venture capital and private equity fund investments	\$126,467	,	\$128,111	

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The carrying value represents investments in 220 and 235 funds (primarily venture capital funds) at September 30, 2018 and December 31, 2017, 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. Effective January 1, 2018, we adopted ASU 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities which eliminated the concept of cost method accounting. On a prospective basis, we will 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

- (2) 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 June 30th, for our September 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. We recorded a cumulative adjustment to opening retained earnings on January 1, 2018 for the difference between fair value and cost for these fund investments. The estimated fair value and carrying value of these venture capital and private equity fund investments was \$209.0 million as of September 30, 2018. As of December 31, 2017, these investments were carried at cost and had a carrying value of \$98.5 million.
 - Effective January 1, 2018, we adopted ASU 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities which eliminated the concept of cost method accounting. On a prospective basis, we will report our other investments in the line item "Other investments without a readily determinable fair value". 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
- (3) 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 nine months ended September 30, 2018:

	Nine
	months
(Dollars in thousands)	ended
	September
	30, 2018
Carrying value as of January 1, 2018	\$ 27,680
Upward carrying value adjustments	4,854
Downward carrying value adjustments	(1,729)
Additions	3,870
Sales and dispositions	(9,422)
Carrying value as of September 30, 2018	\$ 25,253

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. Effective January 1, 2018 we adopted ASU 2016-01 Recognition and Measurement of

(4) Financial Assets and Financial Liabilities which requires equity securities to be measured at fair value with changes in the fair value recognized through net income. Prior to January 1, 2018 we reported equity securities in public companies that we held as a result of exercising public equity warrant assets in available-for-sale securities. On a prospective basis, these equity securities will be reported in non-marketable and other equity securities.

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(5) The following table shows the carrying value and our ownership percentage of each investment at September 30, 2018 and December 31, 2017 (equity method accounting):

	Septembe	r 30, 2018	December	December 31, 2017	
(Dollars in thousands)	Amount Ownership %		Amount	Ownership %	
Venture capital and private equity fund investments:					
Strategic Investors Fund II, LP	\$4,739	8.6	\$6,342	8.6	%
Strategic Investors Fund III, LP	18,176	5.9	18,758	5.9	
Strategic Investors Fund IV, LP	29,445	5.0	25,551	5.0	
Strategic Investors Fund V funds	24,245	Various	16,856	Various	
CP II, LP (i)	6,865	5.1	6,700	5.1	
Other venture capital and private equity fund investments	29,067	Various	15,602	Various	
Total venture capital and private equity fund investments	\$112,537		\$89,809		
Debt funds:					
Gold Hill Capital 2008, LP (ii)	\$3,267	15.5 %	\$18,690	15.5	%
Other debt funds	1,974	Various	2,493	Various	
Total debt funds	\$5,241		\$21,183		
Other investments:					
SPD Silicon Valley Bank Co., Ltd.	\$75,314	50.0 %	\$75,337	50.0	%
Other investments	50,318	Various	35,861	Various	
Total other investments	\$125,632		\$111,198		

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.

The following table presents the balances of our investments in qualified affordable housing projects and related (6) unfunded commitments included as a component of "other liabilities" on our consolidated balance sheets at September 30, 2018 and December 31, 2017:

(Dallars in they canda)	September	December
(Dollars in thousands)	30, 2018	31, 2017
Investments in qualified affordable housing projects, net	\$261,706	\$174,214
Other liabilities	166,867	100,891

The following table presents other information relating to our investments in qualified affordable housing projects for the three and nine months ended September 30, 2018 and 2017:

•	Three months		Nine mo	nths	
	ended		ended ended Sept		ptember
	September 30,				
(Dollars in thousands)	2018	2017	2018	2017	
Tax credits and other tax benefits recognized	\$6,283	\$4,539	\$16,912	\$13,199	
Amortization expense included in provision for income taxes (i)	4,773	3,533	14,269	10,154	

⁽i) All investments are amortized using the proportional amortization method and amortization expense is included in the provision for income taxes.

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.

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The following table presents the net gains on non-marketable and other equity securities for the three and nine months ended September 30, 2018 and 2017 as recorded in the line item "Gains on investment securities, net," a component of noninterest income:

	Three m ended So 30,	onths eptember	Nine mor Septembe	on this ended er 30,	
(Dollars in thousands)	2018	2017	2018	2017	
Net gains on non-marketable and other equity securities:					
Non-marketable securities (fair value accounting):					
Consolidated venture capital and private equity fund investments	\$2,928	\$4,473	\$18,971	\$20,649	
Unconsolidated venture capital and private equity fund investments (1)	6,240	4,697	37,095	13,928	
Other investments without a readily determinable fair value (1)	2,509	(49	4,310	3,354	
Other equity securities in public companies (fair value accounting) (1)	4,407	387	(17,786)	280	
Non-marketable securities (equity method accounting):					
Venture capital and private equity fund investments	11,341	4,319	30,122	10,710	
Debt funds	1,473	2,445	(100)	2,696	
Other investments	3,295	(933	4,753	(3,163)	
Total net gains on non-marketable and other equity securities	\$32,193	\$15,339	\$77,365	\$48,454	
Less: Net gains (losses) on non-marketable and other equity securities sold	357	(49	(20,806)	3,355	
Unrealized net gains on non-marketable and other equity securities still held	\$31,836	\$15,388	\$98,171	\$45,099	

Prior period amounts are not determined in a manner consistent with the current period presentation due to the (1)adoption of accounting standard update (ASU 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities (Topic 825)).

7. Loans, Allowance for Loan Losses and Allowance for 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 (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"). Because of the diverse nature of ERI products and services, for our loan-related reporting purposes, ERI-related loans are reported under our hardware, software/internet, life science/healthcare and other commercial loan categories, as applicable. Our life science/healthcare clients primarily tend to be in the industries of biotechnology, medical devices, healthcare information technology and healthcare services. 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. Our private banking clients are primarily private equity/venture capital professionals and executive leaders in the innovation companies they support. These products and services include real estate secured home equity lines of credit, which may be used to finance real estate investments and loans used to purchase, renovate or refinance personal residences. These products and services also include restricted stock purchase loans and capital call lines of credit.

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. The composition of loans, net of unearned income of \$174 million and \$148 million at September 30, 2018 and December 31, 2017, respectively, is presented in the following table:

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(Dollars in thousands)	September 30, 2018	December 31, 2017
Commercial loans:		
Software/internet	\$6,258,724	\$6,172,531
Hardware	1,306,709	1,193,599
Private equity/venture capital	13,360,511	9,952,377
Life science/healthcare	2,302,453	1,808,827
Premium wine	227,498	204,105
Other	256,413	365,724
Total commercial loans	23,712,308	19,697,163
Real estate secured loans:		
Premium wine (1)	685,941	669,053
Consumer loans (2)	2,556,906	2,300,506
Other	40,879	42,068
Total real estate secured loans	3,283,726	3,011,627
Construction loans	81,163	68,546
Consumer loans	417,718	328,980
Total loans, net of unearned income (3)	\$27,494,915	\$23,106,316

- (1) Included in our premium wine portfolio are gross construction loans of \$92 million and \$100 million at September 30, 2018 and December 31, 2017, respectively.
- (2) Consumer loans secured by real estate at September 30, 2018 and December 31, 2017 were comprised of the following:

(Dallong in thousands)	September	December
(Dollars in thousands)	30, 2018	31, 2017
Loans for personal residence	\$2,196,948	\$1,995,840
Loans to eligible employees	285,186	243,118
Home equity lines of credit	74,772	61,548
Consumer loans secured by real estate	\$2,556,906	\$2,300,506

(3) Included within our total loan portfolio are credit card loans of \$342 million and \$270 million at September 30, 2018 and December 31, 2017, respectively.

Credit Quality

The composition of loans, net of unearned income of \$174 million and \$148 million at September 30, 2018 and December 31, 2017, respectively, broken out by portfolio segment and class of financing receivable, is as follows:

(Dollars in thousands)	September 30,	December 31
(Donars in thousands)	2018	2017
Commercial loans:		
Software/internet	\$6,258,724	\$6,172,531
Hardware	1,306,709	1,193,599
Private equity/venture capital	13,360,511	9,952,377
Life science/healthcare	2,302,453	1,808,827
Premium wine	913,439	873,158
Other	378,455	476,338
Total commercial loans	24,520,291	20,476,830
Consumer loans:		
Real estate secured loans	2,556,906	2,300,506
Other consumer loans	417,718	328,980
Total consumer loans	2,974,624	2,629,486

Total loans, net of unearned income \$27,494,915 \$23,106,316

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The following table summarizes the aging of our gross loans, broken out by portfolio segment and class of financing receivable as of September 30, 2018 and December 31, 2017:

(Dollars in thousands)	30 - 59 Days Past Due	60 - 89 Days Past Due	Equal to or Greater Than 90 Days Past Due	Total Past	Current	Loans Past Due 90 Days or More Still Accruing Interest
September 30, 2018:						
Commercial loans:	ф 1 <i>7</i> 0 <i>6</i> 7	¢ 4.042	4 11	¢ 22 025	Φ.C. 1.7.5. C.5.1	Φ 116
Software/internet	\$ 17,067	\$ 4,842	\$ 116	\$ 22,025	\$6,175,651	\$ 116
Hardware	491	99	_	590	1,298,215	_
Private equity/venture capital	7,556		2	7,558	13,357,777	2
Life science/healthcare	9,620	897	45	10,562	2,330,483	45
Premium wine	1,594		_	1,594	910,356	_
Other	340	27	_	367	400,547	
Total commercial loans	36,668	5,865	163	42,696	24,473,029	163
Consumer loans:						
Real estate secured loans	8,389	_	_	8,389	2,540,950	_
Other consumer loans	2,111			2,111	415,582	
Total consumer loans	10,500			10,500	2,956,532	
Total gross loans excluding impaired	47,168	5,865	163	53,196	27,429,561	163
loans				,		100
Impaired loans	2,345	970	29,197	32,512	153,560	
Total gross loans	\$ 49,513	\$ 6,835	\$ 29,360	\$ 85,708	\$27,583,121	\$ 163
December 31, 2017:						
Commercial loans:						
Software/internet	\$ 14,257	\$ 6,526	\$ 141	\$ 20,924	\$6,101,147	\$ 141
Hardware	1,145	77	50	1,272	1,163,278	50
Private equity/venture capital	86,566	38,580	_	125,146	9,835,317	
Life science/healthcare	4,390	191	_	4,581	1,841,692	
Premium wine	418	_	_	418	871,074	
Other	445	_	_	445	490,292	_
Total commercial loans	107,221	45,374	191	152,786	20,302,800	191
Consumer loans:						
Real estate secured loans	2,164	532	_	2,696	2,292,980	_
Other consumer loans	796	_	_	796	327,234	_
Total consumer loans	2,960	532		3,492	2,620,214	
Total gross loans excluding impaired loans	110,181	45,906	191	156,278	22,923,014	191
Impaired loans	1,344	11,902	30,403	43,649	131,212	_
Total gross loans	\$ 111,525	\$ 57,808	\$ 30,594	\$ 199,927	\$23,054,226	\$ 191
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The following table summarizes our impaired loans as they relate to our allowance for loan losses, broken out by portfolio segment and class of financing receivable as of September 30, 2018 and December 31, 2017:

(Dollars in thousands)	Impaired loans for which there is a related allowance for loan losses	Impaired loans for which there is no related allowance for loan losses	Total carrying value of impaired loans	Total unpaid principal of impaired loans
September 30, 2018:				
Commercial loans:				
Software/internet	\$ 64,197	\$ 55,442	\$ 119,639	\$ 145,122
Hardware	2,431	17,249	19,680	31,804
Private equity/venture capital	_	3,700	3,700	3,700
Life science/healthcare	22,300	14,125	36,425	44,065
Premium wine	306	2,010	2,316	2,375
Other	_			
Total commercial loans	89,234	92,526	181,760	227,066
Consumer loans:				
Real estate secured loans	3,990	322	4,312	5,996
Other consumer loans	_	_	_	_
Total consumer loans	3,990	322	4,312	5,996
Total	\$ 93,224	\$ 92,848	\$ 186,072	\$ 233,062
December 31, 2017:				
Commercial loans:				
Software/internet	\$ 49,645	\$ 61,009	\$ 110,654	\$ 129,006
Hardware	15,637	20,713	36,350	41,721
Private equity/venture capital	658	_	658	984
Life science/healthcare	20,521	1,166	21,687	26,360
Premium wine	_	2,877	2,877	2,911
Other	32	_	32	165
Total commercial loans	86,493	85,765	172,258	201,147
Consumer loans:				
Real estate secured loans	1,331	850	2,181	3,712
Other consumer loans	422	_	422	436
Total consumer loans	1,753	850	2,603	4,148
Total	\$ 88,246	\$ 86,615	\$ 174,861	\$ 205,295

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The following tables summarize our average impaired loans and interest income recognized on impaired loans, broken out by portfolio segment and class of financing receivable for the three and nine months ended September 30, 2018 and 2017:

Three months ended September 30,	Average loans	impaired	recogn	t income ized on ed loans
(Dollars in thousands)	2018	2017	2018	2017
Commercial loans:				
Software/internet	\$118,840	\$121,290	\$607	\$767
Hardware	27,922	35,932	410	419
Private equity/venture capital	1,233	644		3
Life science/healthcare	38,545	25,796	365	21
Premium wine	2,384	3,625	35	39
Other		348		_
Total commercial loans	188,924	187,635	1,417	1,249
Consumer loans:				
Real estate secured loans	4,330	1,306	4	24
Other consumer loans		1,966		_
Total consumer loans	4,330	3,272	4	24
Total average impaired loans	\$193,254	\$190,907	\$1,421	\$1,273
	Average impaired		Interest income recognized on impaired loans	
Nine months ended September 30,	_	•	_	
•	_	2017	_	
Nine months ended September 30, (Dollars in thousands) Commercial loans:	loans		impaire	d loans
(Dollars in thousands)	loans 2018	2017	impaire 2018	d loans 2017
(Dollars in thousands) Commercial loans:	loans 2018 \$112,576	2017 \$122,527	impaire	d loans
(Dollars in thousands) Commercial loans: Software/internet Hardware	loans 2018	2017	impaire 2018 \$991	d loans 2017 \$1,646
(Dollars in thousands) Commercial loans: Software/internet	loans 2018 \$112,576 34,469	2017 \$122,527 33,271	impaire 2018 \$991	d loans 2017 \$1,646 518
(Dollars in thousands) Commercial loans: Software/internet Hardware Private equity/venture capital	loans 2018 \$112,576 34,469 536	2017 \$122,527 33,271 443	impaire 2018 \$991 499	d loans 2017 \$1,646 518 8
(Dollars in thousands) Commercial loans: Software/internet Hardware Private equity/venture capital Life science/healthcare	loans 2018 \$112,576 34,469 536 27,671	2017 \$122,527 33,271 443 33,590	impaire 2018 \$991 499 — 376	d loans 2017 \$1,646 518 8 60
(Dollars in thousands) Commercial loans: Software/internet Hardware Private equity/venture capital Life science/healthcare Premium wine	loans 2018 \$112,576 34,469 536 27,671 2,586	2017 \$122,527 33,271 443 33,590 3,353	impaire 2018 \$991 499 — 376	d loans 2017 \$1,646 518 8 60
(Dollars in thousands) Commercial loans: Software/internet Hardware Private equity/venture capital Life science/healthcare Premium wine Other	loans 2018 \$112,576 34,469 536 27,671 2,586 130	2017 \$122,527 33,271 443 33,590 3,353 706	impaire 2018 \$991 499 — 376 103 —	d loans 2017 \$1,646 518 8 60 115
(Dollars in thousands) Commercial loans: Software/internet Hardware Private equity/venture capital Life science/healthcare Premium wine Other Total commercial loans	loans 2018 \$112,576 34,469 536 27,671 2,586 130	2017 \$122,527 33,271 443 33,590 3,353 706	impaire 2018 \$991 499 — 376 103 —	d loans 2017 \$1,646 518 8 60 115
(Dollars in thousands) Commercial loans: Software/internet Hardware Private equity/venture capital Life science/healthcare Premium wine Other Total commercial loans Consumer loans:	loans 2018 \$112,576 34,469 536 27,671 2,586 130 177,968	2017 \$122,527 33,271 443 33,590 3,353 706 193,890	impaire 2018 \$991 499 — 376 103 — 1,969	d loans 2017 \$1,646 518 8 60 115 — 2,347
(Dollars in thousands) Commercial loans: Software/internet Hardware Private equity/venture capital Life science/healthcare Premium wine Other Total commercial loans Consumer loans: Real estate secured loans	loans 2018 \$112,576 34,469 536 27,671 2,586 130 177,968 3,953	2017 \$122,527 33,271 443 33,590 3,353 706 193,890 1,385	impaire 2018 \$991 499 — 376 103 — 1,969	d loans 2017 \$1,646 518 8 60 115 — 2,347

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The following tables summarize the activity relating to our allowance for loan losses for the three and nine months ended September 30, 2018 and 2017, broken out by portfolio segment:

Three months ended September 30, 2018	Beginning	•	-g	ment:	Provision for	Foreign	Ending
(Dollars in thousands)	Balance June 30, 2018	Charge-of	fs	Recoveries	(Reduction of) Loan Losses	Currency Translation Adjustments	Balance September 30, 2018
Commercial loans:						· ·	
Software/internet	\$102,648	\$ (6,304)	\$ 841	\$ 16,640	\$ (335)	\$ 113,490
Hardware	34,695	(12,697)	227	(1,763)	36	20,498
Private equity/venture capital	89,409			3	1,632	(33)	91,011
Life science/healthcare	35,064	(2,076)	189	2,322	(47)	35,452
Premium wine	3,438	_			125	(3)	3,560
Other	2,896	(1,128)	771	118	(2)	2,655
Total commercial loans	268,150	(22,205)	2,031	19,074	(384)	266,666
Total consumer loans	18,559	_		133	362	(7)	19,047
Total allowance for loan losses	\$286,709	\$ (22,205)	\$ 2,164	\$ 19,436	\$ (391)	\$ 285,713
Three months ended September 30, 2017	Beginning				Provision for	Foreign	Ending
	Balance	Charge-of	fe	Recoveries	(Reduction of)	Currency	Balance
(Dollars in thousands)	June 30,	Charge-of	113	Recoveries	Loan Losses	Translation	September
	2017				Loan Losses	Adjustments	30, 2017
Commercial loans:							
Software/internet	\$92,937	\$ (8,791		\$ 426	\$ 7,241	\$ 199	\$ 92,012
Hardware	27,800	(2,453)	115	5,681	156	31,299
Private equity/venture capital	66,785	_		_	10,142	279	77,206
Life science/healthcare	27,730	(1,083)	63		(45)	25,044
Premium wine	3,133	_			362	10	3,505
Other	4,135	_		947	(931)	(26)	4,125
Total commercial loans	222,520	(12,327		1,551	20,874	573	233,191
Total consumer loans	13,976	(11		277	1,535	42	15,819
Total allowance for loan losses	\$236,496	\$ (12,338)	\$ 1,828	\$ 22,409	\$ 615	\$ 249,010
Nine months ended September 30, 2018	-				Provision for	Foreign	Ending
	Balance	Charge-of	fs	Recoveries	(Reduction of)	Currency	Balance
(Dollars in thousands)	December	Charge of	10	Treco veries	Loan Losses	Translation	September
	31, 2017				Louin Losses	Adjustments	30, 2018
Commercial loans:							
Software/internet	\$96,104	\$ (26,377			\$ 42,620	\$ (675)	\$ 113,490
Hardware	27,614	(16,111		1,458	7,788	(251)	20,498
Private equity/venture capital	82,468	(112	-	13	8,200	442	91,011
Life science/healthcare	24,924	(2,940)	245	13,829		35,452
Premium wine	3,532	_			42		3,560
Other	3,941	(2,391	-	1,874	(775)	6	2,655
Total commercial loans	238,583	(47,931		5,408	71,704		266,666
Total consumer loans	16,441	(289		470	2,384	41	19,047
Total allowance for loan losses	\$ 255,024	\$ (48,220)	\$ 5,878	\$ 74,088	\$ (1,057)	\$ 285,713
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Nine months ended September 30, 2017 (Dollars in thousands)	Beginning Balance December 31, 2016	Charge-of	fs Recoveries	Provision for (Reduction of) Loan Losses	Foreign Currency Translation Adjustments	Ending Balance September 30, 2017
Commercial loans:						
Software/internet	\$97,388	\$ (36,172) \$ 2,833	\$ 27,487	\$ 476	\$ 92,012
Hardware	31,166	(6,726) 459	6,075	325	31,299
Private equity/venture capital	50,299	_		26,111	796	77,206
Life science/healthcare	25,446	(7,493) 107	6,906	78	25,044
Premium wine	4,115	_	_	(567)	(43)	3,505
Other	4,768	(1,047) 1,424	(1,005)	(15)	4,125
Total commercial loans	213,182	(51,438) 4,823	65,007	1,617	233,191
Total consumer loans	12,184	(11) 1,332	2,266	48	15,819
Total allowance for loan losses	\$225,366	\$ (51,449) \$ 6,155	\$ 67,273	\$ 1,665	\$ 249,010

The following table summarizes the activity relating to our allowance for unfunded credit commitments for the three and nine months ended September 30, 2018 and 2017:

	I nree months		Nine months	
	ended September		ended Sep	otember
	30,		30,	
(Dollars in thousands)	2018	2017	2018	2017
Allowance for unfunded credit commitments, beginning balance	\$54,104	\$47,000	\$51,770	\$45,265
(Reduction of) provision for unfunded credit commitments	(2,262)	1,113	138	2,789
Foreign currency translation adjustments	(34)	59	(100)	118
Allowance for unfunded credit commitments, ending balance (1)	\$51,808	\$48,172	\$51,808	\$48,172

See Note 13—"Off-Balance Sheet Arrangements, Guarantees and Other Commitments" of the "Notes to Interim (1) Consolidated Financial Statements (unaudited)" under Part I, Item 1 of this report for additional disclosures related to our commitments to extend credit.

The following table summarizes the allowance for loan losses individually and collectively evaluated for impairment as of September 30, 2018 and December 31, 2017, broken out by portfolio segment:

	September 30, 2018		Decembe	er 31, 2017				
	Individu	ally	Collective	ely	Individu	ally	Collectively	
	Evaluate	ed for	Evaluated	for	Evaluated for		Evaluated	for
	Impairm	ent	Impairme	nt	Impairment		Impairment	
	Allowan	cRecorded	Allowanc	eRecorded	Allowan	AllowancRecorded		eRecorded
(Dollars in thousands)	for loan	investment	for loan	investment	for loan	investment	for loan	investment
	losses	in loans	losses	in loans	losses	in loans	losses	in loans
Commercial loans:								
Software/internet	\$36,856	\$119,639	\$76,634	\$6,139,085	\$23,088	\$110,654	\$73,016	\$6,061,877
Hardware	764	19,680	19,734	1,287,029	8,450	36,350	19,164	1,157,249
Private equity/venture capital		3,700	91,011	13,356,811	330	658	82,138	9,951,719
Life science/healthcare	11,951	36,425	23,501	2,266,028	9,315	21,687	15,609	1,787,140
Premium wine	3	2,316	3,557	911,123	_	2,877	3,532	870,281
Other		_	2,655	378,455	32	32	3,909	476,306
Total commercial loans	49,574	181,760	217,092	24,338,531	41,215	172,258	197,368	20,304,572
Total consumer loans	418	4,312	18,629	2,970,312	578	2,603	15,863	2,626,883
Total	\$49,992	\$ 186,072	\$235,721	\$27,308,843	\$41,793	\$ 174,861	\$213,231	\$22,931,455

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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 "Performing (Criticized)." When full repayment of a criticized loan has been deemed improbable under the original contractual terms but full repayment remains probable overall, the loan is considered to be a "Performing Impaired (Criticized)" loan. All of our nonaccrual loans are risk-rated 8 or 9 and are classified under the nonperforming impaired category. (For further description of nonaccrual loans, refer to Note 2—"Summary of Significant Accounting Policies" under Part II, Item 8 of our 2017 Form 10-K). Loans rated 10 are charged-off and are not included as part of our loan portfolio balance. We review our credit quality indicators for performance and appropriateness of risk ratings as part of our evaluation process for our allowance for loan losses.

The following table summarizes the credit quality indicators, broken out by portfolio segment and class of financing receivables as of September 30, 2018 and December 31, 2017:

(Dollars in thousands)	Pass	Performing (Criticized)	Performing Impaired (Criticized)	Nonperforming Impaired (Nonaccrual)	Total
September 30, 2018:					
Commercial loans:					
Software/internet	\$5,613,023	\$ 584,653	\$ 37,204	\$ 82,435	\$6,317,315
Hardware	1,245,532	53,273	17,249	2,431	1,318,485
Private equity/venture capital	13,362,294	3,041		3,700	13,369,035
Life science/healthcare	2,172,679	168,366	14,125	22,300	2,377,470
Premium wine	862,311	49,639	2,010	306	914,266
Other	398,263	2,651			400,914
Total commercial loans	23,654,102	861,623	70,588	111,172	24,697,485
Consumer loans:					
Real estate secured loans	2,529,708	19,631	322	3,990	2,553,651
Other consumer loans	417,344	349			417,693
Total consumer loans	2,947,052	19,980	322	3,990	2,971,344
Total gross loans	\$26,601,154	\$ 881,603	\$ 70,910	\$ 115,162	\$27,668,829
December 31, 2017:					
Commercial loans:					
Software/internet	\$5,655,739	\$ 466,332	\$ 31,794	\$ 78,860	\$6,232,725
Hardware	1,112,574	51,976	20,165	16,185	1,200,900
Private equity/venture capital	9,955,082	5,381		658	9,961,121
Life science/healthcare	1,720,613	125,660	1,167	20,520	1,867,960
Premium wine	834,537	36,955	2,476	401	874,369
Other	469,721	21,016		32	490,769
Total commercial loans	19,748,266	707,320	55,602	116,656	20,627,844
Consumer loans:					
Real estate secured loans	2,282,375	13,301		2,181	2,297,857
Other consumer loans	326,851	1,179		422	328,452
Total consumer loans	2,609,226	14,480		2,603	2,626,309
Total gross loans	\$22,357,492	\$ 721,800	\$ 55,602	\$ 119,259	\$23,254,153

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Troubled Debt Restructurings

As of September 30, 2018, we had 20 TDRs with a total carrying value of \$85.8 million where concessions have been granted to borrowers experiencing financial difficulties, in an attempt to maximize collection. There were \$0.8 million of unfunded commitments available for funding to the clients associated with these TDRs as of September 30, 2018. The following table summarizes our loans modified in TDRs, broken out by portfolio segment and class of financing receivables at September 30, 2018 and December 31, 2017:

(Dollars in thousands)	September	December
(Donars in thousands)	30, 2018	31, 2017
Loans modified in TDRs:		
Commercial loans:		
Software/internet	\$ 49,078	\$73,455
Hardware	12,499	51,132
Private equity/venture capital	_	350
Life science/healthcare	20,942	19,235
Premium wine	2,964	3,198
Total commercial loans	85,483	147,370
Consumer loans:		
Other consumer loans	322	423
Total	\$ 85,805	\$147,793

The following table summarizes the recorded investment in loans modified in TDRs, broken out by portfolio segment and class of financing receivable, for modifications made during the three and nine months ended September 30, 2018 and 2017:

	Three months		Nine mo	nths	
	ended September		ended Se	eptember	
	30,		30,		
(Dollars in thousands)	2018	2017	2018	2017	
Loans modified in TDRs during the period:					
Commercial loans:					
Software/internet	\$ —	\$10,876	\$14,069	\$26,034	
Hardware	10,398	396	12,347	396	
Life science/healthcare	_	_	5,909		
Premium wine	_	_	_	185	
Total commercial loans	10,398	11,272	32,325	26,615	
Consumer loans:					
Other consumer loans	_	_	322	_	
Total loans modified in TDRs during the period (1)	\$10,398	\$11,272	\$32,647	\$26,615	

There were \$13.0 million and \$21.5 million of partial charge-offs for the three and nine months ended

(1) September 30, 2018, respectively, and zero and \$2.6 million of partial charge-offs during the three and nine months ended September 30, 2017, respectively.

During the three and nine months ended September 30, 2018, all new TDRs of \$10.4 million and \$32.6 million, respectively, were modified through payment deferrals granted to our clients. During the three and nine months ended September 30, 2017, all new TDRs of \$11.3 million and \$26.6 million, respectively, were modified through payment deferrals granted to our clients.

The related allowance for loan losses for the majority of our TDRs is determined on an individual basis by comparing the carrying value of the loan to the present value of the estimated future cash flows, discounted at the pre-modification contractual interest rate. For certain TDRs, the related allowance for loan losses is determined based on the fair value of the collateral if the loan is collateral dependent.

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The following table summarizes the recorded investment in loans modified in TDRs within the previous 12 months that subsequently defaulted during the three and nine months ended September 30, 2018 and 2017:

		Three months ended September 30,		Nine moi ended	nths
				Septemb	er 30,
(I	Pollars in thousands)	2018	2017	2018	2017
T	DRs modified within the previous 12 months that defaulted during the period:				
C	ommercial loans:				
S	oftware/internet	\$18,911	\$1,234	\$41,568	\$1,234
Н	ardware	2,100	_	5,549	
L	ife science/healthcare	5,909		7,139	
P	remium wine	_	186	_	186
_		446040	A 4 4 A A	A = 1 A = 6	A 1 100

Total TDRs modified within the previous 12 months that defaulted in the period \$26,920 \$1,420 \$54,256 \$1,420 Charge-offs and defaults on previously restructured loans are evaluated to determine the impact to the allowance for loan losses, if any. The evaluation of these defaults may impact the assumptions used in calculating the reserve on other TDRs and impaired 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 loan losses as of September 30, 2018.

8. Short-Term Borrowings and Long-Term Debt

The following table represents outstanding short-term borrowings and long-term debt at September 30, 2018 and December 31, 2017:

			Carrying Va	alue
(Dollars in thousands)	Maturity	Principal value at September 30, 2018	September 3 2018	30 December 31, 2017
Short-term borrowings:				
Short-term FHLB advances	(1)	\$2,250,000	\$2,250,000	\$ 700,000
Federal funds purchased				330,000
Securities sold under agreement to repurchase	(2)	371,539	371,539	
Other short-term borrowings	(3)	9,713	9,713	3,730
Total short-term borrowings			\$2,631,252	\$ 1,033,730
Long-term debt:				
3.50% Senior Notes	January 29, 2025	\$350,000	\$347,554	\$ 347,303
5.375% Senior Notes	September 15, 2020	350,000	348,663	348,189
Total long-term debt			\$696,217	\$ 695,492

- (1) Represents advances from the FHLB at September 30, 2018 with maturity dates through November 26, 2018.
- Securities sold under repurchase agreements are effectively short-term collateralized borrowings. Gross repurchase agreements held at September 30, 2018 have maturity dates through October 17, 2018.
- (3) 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 \$12.0 million and \$29.1 million for the three and nine months ended September 30,2018, respectively, and \$9.0 million and \$27.2 million for the three and nine months ended September 30, 2017, respectively. The weighted average interest rate associated with our short-term borrowings was 2.31 percent as of September 30, 2018 and 1.39 percent as of December 31, 2017.

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Available Lines of Credit

We have certain facilities in place to enable us to access short-term borrowings on a secured (using loans and fixed income investment securities as collateral) and unsecured basis. These include repurchase agreements and federal funds lines with various financial institutions. As of September 30, 2018, we did not have any borrowings outstanding against our federal funds lines. We also pledge collateral to the FHLB of San Francisco (comprised primarily of loans and fixed income investment securities) and the discount window at the FRB (comprised primarily of fixed income investment securities) of which \$2.0 billion and \$1.0 billion, respectively, of our borrowing capacity, was unused and available to support additional borrowings at September 30, 2018.

9. Derivative Financial Instruments

We primarily use derivative financial instruments to manage interest rate risk, 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.

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 2017 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.

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The total notional or contractual amounts and fair value of our derivative financial instruments at September 30, 2018 and December 31, 2017 were as follows:

	Septembe	er 30, 2018	3	December 31, 2017		
	Notional	Fair Value		Notional Fair Value	ue	
	or	Derivativ	veDerivative	or Derivativ	veDerivative	
(Dollars in thousands)	Contractu	aAssets	Liabilities	Contractu A ssets	Liabilities	
	Amount	(1)	(1)	Amount (1)	(1)	
Derivatives not designated as hedging instruments:						
Currency exchange risks:						
Foreign exchange forwards	\$241,360	\$2,842	\$ —	\$50,889 \$414	\$—	
Foreign exchange forwards	397,153		4,370	425,055 —	5,201	
Other derivative instruments:						
Equity warrant assets	223,868	146,967		211,253 123,763	_	
Client foreign exchange forwards	2,523,524	77,585		2,203,64395,035	_	
Client foreign exchange forwards	2,390,294	· —	70,317	2,092,207—	90,253	
Client foreign currency options	91,125	1,476		102,678 1,187		
Client foreign currency options	91,149	_	1,478	102,678 —	1,187	
Client interest rate derivatives (2)	937,808	6,262		726,984 11,753	_	
Client interest rate derivatives	1,335,830) —	15,156	782,586 —	11,940	
Total Derivatives not designated as hedging instruments		\$235,132	2\$ 91,321	\$232,152	2\$ 108,581	

⁽¹⁾ Derivative assets and liabilities are included in "accrued interest receivable and other assets" and "other liabilities", respectively, on our consolidated balance sheets.

The amount reported for September 30, 2018 reflects rule changes implemented by two central clearing houses that allow entities to elect to treat derivative assets, liabilities and the related variation margin as settlement of the related derivative fair values for legal and accounting purposes, as opposed to presenting gross derivative assets

⁽²⁾ and liabilities. As a result, client interest rate derivatives at September 30, 2018, reflect reductions of approximately \$8.7 million of derivative assets that previously would have been reported on a gross basis and approximately \$302.4 million in related notional amounts for these derivative assets cleared through central clearing houses.

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A summary of our derivative activity and the related impact on our consolidated statements of income for the three and nine months ended September 30, 2018 and 2017 is as follows:

·		Three mo ended Sep 30,		Nine mon	nths endeder 30,	d
(Dollars in thousands)	Statement of income location	2018	2017	2018	2017	
Derivatives designated as hedging						
instruments:						
Interest rate risks:						
Net cash benefit associated with interest	Internal arrange hamaning	¢	¢.60	¢	¢007	
rate swaps	Interest expense—borrowings	\$ —	\$62	\$—	\$997	
Changes in fair value of interest rate swaps	Other noninterest income	_	_	_	(7)
Net gains associated with interest rate risk		\$—	\$60	¢	\$000	
derivatives		5 —	\$62	\$—	\$990	
Derivatives not designated as hedging						
instruments:						
Currency exchange risks:						
Gains on revaluations of internal foreign	Other noninterest income	\$5,412	\$10,561	\$8,019	\$29,265	5
currency instruments, net	Other nonniterest meome	Ψ3, 1 12	ψ10,501	ψ0,017	Ψ27,200	,
(Losses) on internal foreign exchange	Other noninterest income	(5,002)	(10,550)	(8.055	(28,349)
forward contracts, net	other nonmerest meome	(3,002)	(10,550)	(0,033	, (20,54)	,
Net gains (losses) associated with internal		\$410	\$11	\$(36	\$916	
currency risk		Ψ110	ΨΠ	ψ(50)	, ψ)10	
Other derivative instruments:						
(Losses) gains on revaluations of client	Other noninterest income	\$(1,187)	\$3,760	\$3,718	\$8,889	
foreign currency instruments, net		Ψ(1,10 <i>i</i>)	Ψ2,700	Ψο,,, 10	Ψ 0,000	
Gains (losses) on client foreign exchange	Other noninterest income	1,573	(3,871)	(2,697	(8,350)
forward contracts, net		-,	(=,=,=,	(-,-, ,	(0,000	,
Net gains (losses) associated with client		\$386	\$(111)	\$1,021	\$539	
currency risk		,	, ,	, ,-	,	
Net gains on equity warrant assets	Gains on equity warrant assets,	\$34,141	\$24,922	\$72,393	\$42,432	2
	net	•	•			
Net gains (losses) on other derivatives	Other noninterest income	\$222	\$(38)	\$643	\$(524)
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.

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The following table summarizes our assets subject to enforceable master netting arrangements as of September 30, 2018 and December 31, 2017:

(Dollars in thousands)	Gross Amounts of Recognized Assets	Gross Amount offset in the Stateme of Financia Position	Presented in the Statement of	Gross Amounts Not Offset in the Statement of Financial Position But Subject to Master Netting Arrangements Cash Financial Collateral Instruments Received (1)	Net Amount
September 30, 2018					
Derivative Assets:					
Foreign exchange forwards	\$ 80,427	\$ -	-\$ 80,427	\$(29,400) \$(6,816) \$	\$44,211
Foreign currency options	1,476		1,476	(811) — (811)	665
Client interest rate derivatives	6,262		6,262	(3,365) (2,897) -	
Total derivative assets	88,165	_	88,165	(33,576) (9,713) 4	44,876
Reverse repurchase, securities borrowing, and similar arrangements	119,181	_	119,181	(119,181) —	
Total	\$ 207,346	\$ -	\$207,346	\$(152,757) \$(9,713) \$	\$44,876
December 31, 2017	,	·	, ,		. ,
Derivative Assets:					
Foreign exchange forwards (2)	\$ 95,449	\$ -	\$95,449	\$(14,570) \$(3,616) \$	\$77,263
Foreign currency options	1,187	_	1,187		630
Client interest rate derivatives (2)	11,753		11,753	(11,627) (114) 1	
Total derivative assets	108,389		108,389		77,905
Reverse repurchase, securities borrowing, and similar arrangements	247,876		247,876	(247,876) —	
Total	\$ 356,265	\$ -	\$356,265	\$(274,630) \$(3,730) \$	\$77,905

⁽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.

For the period ending December 31, 2017, previously reported amounts for our foreign exchange forwards and client interest rate derivatives were reclassified between "Financial Instruments" and "Cash Collateral Received" to

The following table summarizes our liabilities subject to enforceable master netting arrangements as of September 30, 2018 and December 31, 2017:

· · · · · · · · · · · · · · · · · ·						
	Gross	Gross	Net	Gross Amo	unts Not	Net
	Amounts of	Amounts	Amounts	Offset in the	e Statement	Amount
	Recognized	offset in	of	of Financial	Position	
	Liabilities	the	Liabilities	But Subject	to Master	
		Statemen	tPresented	Netting Arr	angements	
(Dollars in thousands)		of	in the	Financial	Cash	
		Financial	Statement	Instruments	Collateral	
		Position	of		Pledged	

⁽²⁾ properly reflect cash collateral received for these derivative assets subject to master netting arrangements, respectively. The correction of this immaterial error had no impact on the "Net Amount" of derivative assets subject to enforceable master netting arrangements.

			Financial Position		(1)
September 30, 2018					
Derivative Liabilities:					
Foreign exchange forwards	\$ 74,687	\$	-\$ 74,687	\$(22,038)	\$(20,036) \$32,613
Foreign currency options	1,478	_	1,478	(666)	
Client interest rate derivatives	15,156	_	15,156	(4,882)	(10,180) 94
Total derivative liabilities	91,321	_	91,321	(27,586)	(30,216) 33,519
Repurchase, securities lending, and similar arrangements	371,539	_	371,539	(147,757)	(750) 223,032
Total	\$ 462,860	\$	-\$462,860	\$(175,343)	\$(30,966) \$256,551
December 31, 2017					
Derivative Liabilities:					
Foreign exchange forwards (2)	\$ 95,454	\$	-\$ 95,454	\$(10,997)	\$(69,110) \$15,347
Foreign currency options (2)	1,187	_	1,187	(501)	(130) 556
Client interest rate derivatives (2)	11,940	_	11,940		(11,924) 16
Total derivative liabilities (2)	108,581	_	108,581	(11,498)	(81,164) 15,919
Repurchase, securities lending, and similar					
arrangements	_		_		
Total (2)	\$ 108,581	\$	-\$108,581	\$(11,498)	\$(81,164) \$15,919
40					

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

For the period ending December 31, 2017, previously reported amounts included in "Financial Instruments" were reclassified to "Cash Collateral Pledged" to properly reflect cash collateral pledged for these derivative liabilities subject to master netting arrangements. The correction of this immaterial error had no impact on the "Net Amount" of derivative liabilities subject to enforceable master netting arrangements.

10. Noninterest Income

On January 1, 2018, we adopted Topic 606 using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. Results for reporting periods beginning after January 1, 2018, are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with our previous accounting methodology under Topic 605. A summary of noninterest income for the three and nine months ended September 30, 2018 and 2017 is as follows:

Three months ended Nine months ende			
Septembe	r 30,	Septembe	r 30,
2018	2017	2018	2017
\$32,193	\$15,238	\$77,365	\$48,838
34,141	24,922	72,393	42,432
32,656	29,671	100,560	82,026
24,121	20,270	68,739	56,099
19,588	14,508	56,081	43,046
36,265	15,563	88,592	37,571
10,675	15,404	30,938	32,874
8,409	7,306	24,938	20,951
12,022	15,896	38,671	41,128
\$210,070	\$158,778	\$558,277	\$404,965
	Septembe 2018 \$32,193 34,141 32,656 24,121 19,588 36,265 10,675 8,409 12,022	September 30, 2018 2017 \$32,193 \$15,238 34,141 24,922 32,656 29,671 24,121 20,270 19,588 14,508 36,265 15,563 10,675 15,404 8,409 7,306 12,022 15,896	September 30, September 2018 2018 2017 2018 \$32,193 \$15,238 \$77,365 34,141 24,922 72,393 32,656 29,671 100,560 24,121 20,270 68,739 19,588 14,508 56,081 36,265 15,563 88,592 10,675 15,404 30,938 8,409 7,306 24,938 12,022 15,896 38,671

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 and investments in 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, 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 (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

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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 outside of the scope of the new revenue standard 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 nine months ended September 30, 2018 and 2017 is as follows:

	Timee monuis		Mille illolluis	
	ended September		ended Se	eptember
	30,		30,	
(Dollars in thousands)	2018	2017	2018	2017
Gains on non-marketable and other equity securities, net	\$32,193	\$15,339	\$77,365	\$48,454
(Losses) gains on sales of available-for-sale securities, net		(101)	_	384
Total gains on investment securities, net	\$32,193	\$15,238	\$77,365	\$48,838
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 the new revenue standard 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 nine months ended September 30, 2018 and 2017 is as follows:

·	Three months ended September 30,		Nine months end September 30,	
(Dollars in thousands)	2018	2017	2018	2017
Equity warrant assets:				
Gains on exercises, net	\$18,287	\$7,449	\$42,808	\$22,482
Cancellations and expirations	(1,432)	(757)	(3,158)	(3,614)
Changes in fair value, net	17,286	18,230	32,743	23,564
Total net gains on equity warrant assets	\$34,141	\$24,922	\$72,393	\$42,432
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 are typically settled within two business days. Forward contract and option premium fees are recognized outside of the scope of the new revenue standard 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 nine months ended September 30, 2018 and 2017 is as follows:

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	Three months ended September 30,		Nine mon ended Sep 30,	
(Dollars in thousands)	2018	2017	2018	2017
Foreign exchange fees by instrument type:				
Spot contract commissions	\$30,041	\$27,700	\$92,791	\$73,707
Forward contract commissions	2,534	1,877	7,474	7,948
Option premium fees	81	94	295	371
Total foreign exchange fees	\$32,656	\$29,671	\$100,560	\$82,026
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

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 nine months ended September 30, 2018 and 2017 is as follows:

	Three me		Nine months		
	ended September		ended Se	eptember	
	30,		30,		
(Dollars in thousands)	2018	2017	2018	2017	
Credit card fees by instrument type:					
Card interchange fees, net	\$18,849	\$16,179	\$54,547	\$44,182	
Merchant service fees	3,679	2,930	10,010	8,553	
Card service fees	1,593	1,161	4,182	3,364	
Total credit card fees	\$24,121	\$20,270	\$68,739	\$56,099	
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.

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 nine months ended September 30, 2018 and 2017, is as follows:

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	Three me		Nine months		
	ended September		ended Se	ptember	
	30,		30,		
(Dollars in thousands)	2018	2017	2018	2017	
Client investment fees by type:					
Sweep money market fees	\$21,105	\$7,968	\$50,605	\$18,838	
Asset management fees (1)	6,358	4,177	17,447	11,666	
Repurchase agreement fees	8,802	3,418	20,540	7,067	
Total client investment fees (2)	\$36,265	\$15,563	\$88,592	\$37,571	

- (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 which are maintained at third-party financial institutions and are not recorded on our balance sheet.

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 the new revenue standard 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 nine months ended September 30, 2018 and 2017 is as follows:

	Three me	onths	Nine months		
	ended Se	eptember	ended September		
	30,		30,		
(Dollars in thousands)	2018	2017	2018	2017	
Lending related fees by instrument type:					
Unused commitment fees	\$8,410	\$12,334	\$24,994	\$25,923	
Other	2,265	3,070	5,944	6,951	
Total lending related fees	\$10,675	\$15,404	\$30,938	\$32,874	

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 the new revenue standard as it explicitly excludes noninterest income earned from our lending related activities.

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 the new revenue standard.

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 basis, quarterly, semi-annually 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 nine months ended September 30, 2018 and 2017 is as follows:

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	Three months ended September 30,		Nine mo ended Se 30,	
(Dollars in thousands)	2018	2017	2018	2017
Other noninterest income by instrument type:				
Fund management fees	\$5,479	\$5,198	\$17,144	\$15,903
Net gains (losses) on revaluation of foreign currency instruments, net of foreign exchange forward contracts(1)	796	(100)	985	1,455
Other service revenue	5,747	10,798	20,542	23,770
Total other noninterest income	\$12,022	\$15,896	\$38,671	\$41,128

Represents the net revaluation of client and internal foreign currency denominated financial instruments. We enter (1) 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 nine months ended September 30, 2018:

segment for the three and fine months ended t	•	, =010.			
Three months ended September 30, 2018 (Dollars in thousands)	Global Commercial Bank	SVB Private Bank	SVB Capital	Other Income	Total
Revenue from contracts with customers:					
Spot contract commissions	\$ 29,776	\$ 184	\$ —	\$81	\$30,041
Card interchange fees, gross	33,905	_		108	34,013
Merchant service fees	3,677	2			3,679
Deposit service charges	19,207	24	_	357	19,588
Client investment fees	14,740	420	_	21,105	36,265
Fund management fees	_	_	5,479		5,479
Correspondent bank rebates	1,372			_	1,372
Total revenue from contracts with customers	\$ 102,677	\$ 630	\$5,479	\$21,651	\$130,437
Revenues outside the scope of ASC 606 (1)	11,446	(25)	18,944	•	79,633
Total noninterest income	\$ 114,123	\$ 605	\$24,423	\$70,919	\$210,070
(1) Amounts are accounted for under separate	guidance than	ASC 606.			
Nine months ended September 30, 2018 (Dollars in thousands)	Global Commercial Bank	SVB Private Bank	SVB Capital	Other Income	Total
Revenue from contracts with customers:					
Spot contract commissions	\$ 92,098	\$ 507	\$ —	\$186	¢00.701
Card interchange fees, gross		T		ΨΙΟΟ	\$92,791
	95,088	_	_	311	\$92,791 95,399
Merchant service fees	95,088 10,008	2			•
Merchant service fees Deposit service charges	,	_	_		95,399
	10,008	2		311	95,399 10,010
Deposit service charges	10,008 54,633	2 83	_ 	311 — 1,365	95,399 10,010 56,081
Deposit service charges Client investment fees	10,008 54,633	2 83 1,101		311 — 1,365	95,399 10,010 56,081 88,592
Deposit service charges Client investment fees Fund management fees	10,008 54,633 36,885	2 83 1,101		311 — 1,365	95,399 10,010 56,081 88,592 17,144
Deposit service charges Client investment fees Fund management fees Correspondent bank rebates Total revenue from contracts with customers	10,008 54,633 36,885 — 4,241 \$ 292,953	2 83 1,101 — \$ 1,693		311 — 1,365 50,606 — \$52,468	95,399 10,010 56,081 88,592 17,144 4,241 \$364,258
Deposit service charges Client investment fees Fund management fees Correspondent bank rebates	10,008 54,633 36,885 — 4,241	2 83 1,101		311 — 1,365 50,606 — \$52,468 95,586	95,399 10,010 56,081 88,592 17,144 4,241

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

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11. Other Noninterest Expense

A summary of other noninterest expense for the three and nine months ended September 30, 2018 and 2017 is as follows:

Three m	onths	Nine months	
ended Se	eptember	ended Se	eptember
30,		30,	
2018	2017	2018	2017
\$5,698	\$6,935	\$16,301	\$18,806
2,740	2,244	7,934	7,254
2,269	2,518	7,025	7,892
1,387	883	3,081	2,355
652	612	2,133	2,013
5,393	4,872	15,171	16,350
\$18,139	\$18,064	\$51,645	\$54,670
	ended Se 30, 2018 \$5,698 2,740 2,269 1,387 652 5,393	30, 2018 2017 \$5,698 \$6,935 2,740 2,244 2,269 2,518 1,387 883 652 612 5,393 4,872	ended September ended Set 30, 30, 2018 2017 2018 \$5,698 \$6,935 \$16,301 2,740 2,244 7,934 2,269 2,518 7,025 1,387 883 3,081 652 612 2,133

12. Segment Reporting

We have three reportable segments for management reporting purposes: Global Commercial Bank, SVB Private Bank and SVB Capital. 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 loans funded. 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 three 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, global treasury management, foreign exchange, global trade finance, and other services. It serves clients within the United States, 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 Private Equity Division provides banking products and services primarily to our private equity and venture capital clients.

Our Wine practice provides banking products and services to our premium wine industry clients, including vineyard development loans.

SVB Analytics previously provided equity valuation services and currently provides research for investors and companies in the global innovation economy. In September 2017, SVB Analytics sold its equity valuation services business.

Debt Fund Investments comprised of our investments in certain debt funds in which we are a strategic investor.

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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, as well as cash and wealth management services.

SVB Capital is the funds management business of SVBFG, 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.

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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 nine months ended September 30, 2018 and 2017 is as follows:

(Dollars in thousands)	Global Commercial Bank (1)	SVB Private Bank	SVB Capital (1)	Other Items (2)	Total
Three months ended September 30, 2018	* 121 026		Φ. σ	4.7. 6.4.	* 402 222
Net interest income	\$431,036	\$14,919	\$ 6	\$47,261	\$493,222
(Provision for) reduction of credit losses		` /		2,262	(17,174)
Noninterest income	114,123	605	24,423	70,919	210,070
Noninterest expense (3)					(309,445)
Income before income tax expense (4)	\$319,598	\$8,402	\$ 17,960	\$30,713	\$376,673
Total average loans, net of unearned income	\$22,925,909	\$2,928,576	\$ —	\$476,892	\$26,331,377
Total average assets (5)	54,296,808	2,538,662	388,531		56,465,037
Total average deposits	47,037,693	1,505,746	_	548,801	49,092,240
Three months ended September 30, 2017		* * * * * * * * * * * * * * * * * * * *	.		
Net interest income	\$337,860	\$14,600	\$ 15	\$21,499	\$373,974
Provision for credit losses					(23,522)
Noninterest income	97,227	460	13,913	47,178	158,778
Noninterest expense (3)					(257,761)
Income (loss) before income tax expense (4)	\$235,907	\$8,819	\$ 9,055	,	\$251,469
Total average loans, net of unearned income	\$18,807,616	\$2,499,507	\$ —	\$277,769	\$21,584,892
Total average assets (5)	47,809,890	2,538,400	323,417		49,795,366
Total average deposits	42,376,024	1,231,390		435,428	44,042,842
Nine months ended September 30, 2018					
Net interest income	\$1,209,960	\$46,811	\$ 22	\$122,735	\$1,379,528
Provision for credit losses			_		(74,226)
Noninterest income	326,714	1,677	81,832	148,054	558,277
Noninterest expense (3)				(253,256)	
Income before income tax expense (4)	\$873,536	\$27,375	\$ 64,672	\$17,395	\$982,978
Total average loans, net of unearned income	\$21,781,557	\$2,791,910	\$ —	\$434,810	\$25,008,277
Total average assets (5)	52,277,701	2,548,184	379,809	(773,042)	54,432,652
Total average deposits	45,701,317	1,519,200		513,845	47,734,362
Nine months ended September 30, 2017					
Net interest income	\$924,789	\$42,952	\$ 41	\$58,881	\$1,026,663
Provision for credit losses	(65,007)	(2,266)		(2,789)	(70,062)
Noninterest income	260,650	1,715	45,707	96,893	404,965
Noninterest expense (3)	(528,807)	(12,675)	(14,537)	(190,621)	(746,640)
Income (loss) before income tax expense (4)	\$591,625	\$29,726	\$ 31,211	\$(37,636)	\$614,926
Total average loans, net of unearned income	\$18,125,020	\$2,371,027	\$ —	\$230,420	\$20,726,467
Total average assets (5)	45,408,476	2,403,777	333,439		47,565,051
Total average deposits	40,398,413	1,289,990	_	373,232	42,061,635

Global Commercial Bank's and SVB Capital's components of net interest income, noninterest income, noninterest (1) 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 on equity warrant assets and gains or losses on the sale of fixed income investments and equity securities from exercised warrant

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assets. Noninterest expense consists primarily of expenses associated with corporate support functions such as finance, human resources, marketing, legal and other expenses.

The Global Commercial Bank segment includes direct depreciation and amortization of \$5.5 million and \$6.1

- (3) million for the three months ended September 30, 2018 and 2017, respectively, and \$16.6 million and \$19.4 million for the nine months ended September 30, 2018 and 2017, respectively.
- 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.
- Total average assets equal the greater of total average assets or the sum of total average liabilities and total average (5) stockholders' equity for each segment to reconcile the results to the consolidated financial statements prepared in conformity with GAAP.
- 13. 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 September 30, 2018 and December 31, 2017:

(Dollars in thousands)	September 30.	December 31,	
(Donars in thousands)	2018	2017	
Loan commitments available for funding: (1)			
Fixed interest rate commitments	\$1,768,904	\$1,478,157	
Variable interest rate commitments	14,698,357	14,034,169	
Total loan commitments available for funding	16,467,261	15,512,326	
Commercial and standby letters of credit (2)	2,072,253	1,950,211	
Total unfunded credit commitments	\$18,539,514	\$17,462,537	
Commitments unavailable for funding (3)	\$ 2,458,846	\$2,117,057	
Allowance for unfunded credit commitments (4)	51,808	51,770	

- (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.
- Our allowance 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 September 30, 2018. 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	Expires After	Total Amount	Maximum Amount
(Donars in thousands)	Year or Less One Year		Outstanding	of Future Payments
Financial standby letters of credit	\$ 1,906,562	\$ 41,565	\$ 1,948,127	\$ 1,948,127
Performance standby letters of credit	84,402	15,666	100,068	100,068
Commercial letters of credit	23,707	351	24,058	24,058
Total	\$ 2,014,671	\$ 57,582	\$ 2,072,253	\$ 2,072,253

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Deferred fees related to financial and performance standby letters of credit were \$11.9 million at September 30, 2018 and \$12.4 million at December 31, 2017. At September 30, 2018, collateral in the form of cash of \$1.1 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

Subject to applicable regulatory requirements, including the Volcker Rule, we make commitments to invest in venture capital and private equity funds, which generally makes 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 September 30, 2018:

(Dallars in thousands)	SVBFG Capital	SVBFG Unfunded	SVBFG Ownership	
(Dollars in thousands)	Commitments	Commitments	of each Fund (3)	
CP I, LP	\$ 6,000	\$ 270	10.7 %	
CP II, LP (1)	1,200	162	5.1	
Shanghai Yangpu Venture Capital Fund (LP)	844	_	6.8	
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	2,325	5.0	
Strategic Investors Fund V funds	515	131	Various	
Capital Preferred Return Fund, LP	12,688	_	20.0	
Growth Partners, LP	24,670	1,340	33.0	
Debt funds (equity method accounting)	48,443	_	Various	
Other fund investments (2)	298,168	8,366	Various	
Total	\$ 450,067	\$ 15,607		

- 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 223 funds (primarily venture capital funds) where our ownership interest is generally less than five percent of the voting interests of each such fund.
 - We are subject to the Volcker Rule, which restricts or limits us from sponsoring or having ownership interests in
- (3) "covered" funds including venture capital and private equity funds. See "Business Supervision and Regulation" under Part 1, Item 1 of our 2017 Form 10-K.

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 September 30, 2018:

(Dollars in thousands)	Unfunded			
(Donars in mousands)	Commitments			
Strategic Investors Fund, LP	\$ 1,338			
Capital Preferred Return Fund, LP	2,658			
Growth Partners, LP	1,779			
Total	\$ 5,775			
14. Income Taxes				

We are subject to income tax in the U.S. federal jurisdiction and various state and foreign jurisdictions and have identified our federal tax and California tax returns as major tax filings. Our U.S. federal tax returns for 2015 and subsequent tax years remain open to full examination. Our California tax returns for 2013 and subsequent tax years remain open to full examination.

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At September 30, 2018, our unrecognized tax benefit was \$13.2 million, the recognition of which would reduce our income tax expense by \$10.2 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 or nine months ended September 30, 2018.

15. 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, 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, 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.

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Municipal bonds and notes: Bonds issued by municipal governments generally have stated coupon rates, final maturity dates and are subject to being called ahead of the final maturity date at the option of the issuer. Fair value measurements of these securities are priced based on spreads to other municipal benchmark bonds with similar characteristics; or, relative to market rates on U.S. Treasury bonds of similar maturity.

Interest rate derivative assets and liabilities: Fair value measurements of interest rate derivatives are priced considering the coupon rate of the fixed leg of the contract and the variable coupon 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.

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. 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. 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 lock-up restrictions or other features that indicate a discount to fair value is warranted. As a lock-up term nears, and other sale restrictions are lifted, discounts are adjusted downward to zero percent 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 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.

It is our policy to maximize the use of observable inputs and minimize the use of unobservable inputs when developing fair value measurements. When available, we use quoted market prices to measure fair value. If market prices are not available, fair value measurement is based upon valuation techniques that use primarily market-based or independently-sourced market parameters, including interest rate yield curves, prepayment speeds, option volatilities

and currency rates. Substantially all of our financial instruments use the foregoing methodologies, and are categorized as a Level 1 or Level 2 measurement in the fair value hierarchy. However, in certain cases, when market observable inputs for our valuation techniques may not be readily available, we are required to make judgments about assumptions we believe market participants would use in estimating the fair value of the financial instrument, and based on the significance of those judgments, the measurement may be determined to be a Level 3 fair value measurement.

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The degree of management judgment involved in determining the fair value of a financial instrument is dependent upon the availability of quoted market prices or observable market parameters. For financial instruments that trade actively and have quoted market prices or observable market parameters, there is minimal subjectivity involved in measuring fair value. When observable market prices and parameters are not fully available, management judgment is necessary to estimate fair value. For inactive markets, there is little information, if any, to evaluate if individual transactions are orderly. Accordingly, we are required to estimate, based upon all available facts and circumstances, the degree to which orderly transactions are occurring and provide more weighting to price quotes that are based upon orderly transactions. In addition, changes in the market conditions may reduce the availability of quoted prices or observable data. For example, reduced liquidity in the capital markets or changes in secondary market activities could result in observable market inputs becoming unavailable. Therefore, when market data is not available, we use valuation techniques requiring more management judgment to estimate the appropriate fair value measurement. Accordingly, the degree of judgment exercised by management in determining fair value is greater for financial assets and liabilities categorized as Level 3.

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 September 30, 2018:

(Dollars in thousands)	Level 1	Level 2	Level 3	Balance at September 30, 2018
Assets:				
Available-for-sale securities:				
U.S. Treasury securities	\$5,501,874	\$ —		\$5,501,874
U.S. agency debentures		1,346,672		1,346,672
Residential mortgage-backed securities:				
Agency-issued collateralized mortgage obligations—fixed rate		1,920,541	_	1,920,541
Agency-issued collateralized mortgage obligations—variable rate		318,522		318,522
Total available-for-sale securities	5,501,874	3,585,735		9,087,609
Non-marketable and other equity securities (fair value accounting):				
Non-marketable securities:				
Venture capital and private equity fund investments measured at net				334,419
asset value				331,117
Venture capital and private equity fund investments not measured at			1,001	1,001
net asset value (1)			1,001	•
Other equity securities in public companies	2,184	28,276		30,460
Total non-marketable and other equity securities (fair value	2,184	28,276	1,001	365,880
accounting)	2,10.	20,270	1,001	202,000
Other assets:				
Foreign exchange forward and option contracts		81,903	_	81,903
Equity warrant assets			140,489	146,967
Client interest rate derivatives		6,262		6,262
Total assets	\$5,504,058	\$3,708,654	\$141,490	\$9,688,621
Liabilities:				
Foreign exchange forward and option contracts	\$—	\$76,165	\$ —	\$76,165
Client interest rate derivatives		15,156		15,156
Total liabilities	\$ —	\$91,321	\$ —	\$91,321

⁽¹⁾ Included in Level 3 assets is \$0.9 million attributable to noncontrolling interests calculated based on the ownership percentages of the noncontrolling interests.

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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, 2017:

(Dollars in thousands)	Level 1	Level 2	Level 3	Balance at December 31, 2017
Assets:				
Available-for-sale securities:				
U.S. Treasury securities	\$6,840,502		\$—	\$6,840,502
U.S. agency debentures		1,567,128		1,567,128
Residential mortgage-backed securities:				
Agency-issued collateralized mortgage obligations—fixed rate	_	2,267,035	_	2,267,035
Agency-issued collateralized mortgage obligations—variable rate	_	373,730		373,730
Equity securities	158	72,111		72,269
Total available-for-sale securities	6,840,660	4,280,004		11,120,664
Non-marketable and other equity securities (fair value accounting):				
Non-marketable securities:				
Venture capital and private equity fund investments measured at net asset value	_	_		127,192
Venture capital and private equity fund investments not measured at net asset value (1)	_	_	919	919
Other equity securities in public companies (1)	310			310
Total non-marketable and other equity securities (fair value accounting)	310	_	919	128,421
Other assets:				
Foreign exchange forward and option contracts	_	96,636		96,636
Equity warrant assets		2,432	121,331	123,763
Client interest rate derivatives		11,753	_	11,753
Total assets	\$6,840,970	\$4,390,825	\$122,250	\$11,481,237
Liabilities:				
Foreign exchange forward and option contracts	\$ —	\$96,641	\$ —	\$96,641
Client interest rate derivatives		11,940		11,940
Total liabilities	\$	\$108,581	\$—	\$108,581

⁽¹⁾ Included in Level 1 and Level 3 assets are \$0.2 million and \$0.8 million, respectively, attributable to noncontrolling interests calculated based on the ownership percentages of the noncontrolling interests.

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The following table presents additional information about Level 3 assets measured at fair value on a recurring basis for the three and nine months ended September 30, 2018 and 2017:

(Dollars in thousands)	Beginning Balance	Total Realized and Unrealized Gains (Losses) Included in Income	Sales/Exits	Issuances	Distribu and Other Settlem	Out of	S Ending Balance
Three months ended September 30, 2018							
Non-marketable and other securities (fair							
value accounting):							
Venture capital and private equity fund							
investments not measured at net asset value	\$1,001	\$ <i>—</i>	\$—	\$ —	\$	_\$	\$1,001
(1)							
Other assets:	10===0		(0.1.101)	4 000		(200	4.40.400
Equity warrant assets (2)	137,753	32,237	(34,101)		_		140,489
Total assets	\$138,754	\$ 32,237	\$(34,101)	\$ 4,809	\$	- \$ (209)	\$141,490
Three months ended September 30, 2017							
Non-marketable and other securities (fair							
value accounting):							
Venture capital and private equity fund	4.00	φ.	Φ.	.	.	Φ.	* * * * * *
investments not measured at net asset value	\$1,897	\$ <i>—</i>	\$—	\$ —	\$	<u> \$ </u>	\$1,897
(1)							
Other assets:	100070	21271	// = // = :				
Equity warrant assets (2)	128,952	24,354	(17,412)				