FEDERAL DEPOSIT INSURANCE CORPORATION

Washington, D.C. 20429

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, 2019

OR

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

For the transition period from to

FIRST REPUBLIC BANK

(Exact name of registrant as specified in its charter)

California

(State or other jurisdiction of incorporation or organization)

80-0513856 (I.R.S. Employer Identification No.)

111 Pine Street, 2nd Floor, San Francisco, CA (Address of principal executive offices) 94111

(Zip Code)

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

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 \boxtimes No \square

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 (222.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes \square No \square

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer 🗵	Accelerated filer
Non-accelerated filer [] (Do not check if a smaller reporting company)	Smaller reporting company \Box
	Emerging growth company \Box

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. \Box

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

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.01 par value	FRC	New York Stock Exchange
Depositary Shares, Each Representing a 1/40th Interest in a Share of 5.70% Noncumulative Perpetual Series F Preferred Stock	FRC-PrF	New York Stock Exchange
Depositary Shares, Each Representing a 1/40th Interest in a Share of 5.50% Noncumulative Perpetual Series G Preferred Stock	FRC-PrG	New York Stock Exchange
Depositary Shares, Each Representing a 1/40th Interest in a Share of 5.125% Noncumulative Perpetual Series H Preferred Stock	FRC-PrH	New York Stock Exchange
Depositary Shares, Each Representing a 1/40th Interest in a Share of 5.50% Noncumulative Perpetual Series I Preferred Stock	FRC-PrI	New York Stock Exchange

The number of shares outstanding of the Bank's common stock, par value \$0.01 per share, as of October 31, 2019 was 168,522,036.

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SIGNATURES

PART I - FINANCIAL INFORMATION

FIRST REPUBLIC BANK CONSOLIDATED BALANCE SHEETS (Unaudited)

(in thousands, except share amounts)	September 30, 2019	December 31, 2018
ASSETS Cash and cash equivalents. Debt securities available-for-sale Debt securities held-to-maturity (fair value of \$16,702,888 and \$14,287,524 at September 30, 2019 and December 31, 2018, respectively) Equity securities (fair value).	\$ 2,181,600 1,401,105 16,002,722 19,736	\$ 2,811,159 1,779,116 14,436,973 18,719
Loans	86,304,810 (485,465) 85,819,345	75,865,282 (439,048) 75,426,234
Loans held for sale	31,693 1,425,057 1,039,061 2,424,383 373,693 264,658 45,682 \$ 111,028,735	98,985 1,376,579 1,057,541 1,538,971 332,483 273,974 54,470 \$ 99,205,204
LIABILITIES AND EQUITY Liabilities: Deposits: Noninterest-bearing checking Interest-bearing checking Money market checking Money market savings and passbooks Certificates of deposit Total Deposits	\$ 32,720,317 17,438,402 11,242,205 10,277,249 14,042,346 85,720,519	\$ 30,033,658 17,089,520 10,317,436 10,245,107 11,377,515 79,063,236
Short-term borrowings. Long-term FHLB advances. Senior notes . Subordinated notes . Other liabilities . Total Liabilities .	775,000 10,900,000 497,494 777,781 2,926,735 101,597,529	100,000 8,700,000 896,432 777,475 990,284 90,527,427
 Shareholders' Equity: Preferred stock, \$0.01 par value per share; 25,000,000 shares authorized; 940,000 shares issued and outstanding at both September 30, 2019 and December 31, 2018. Common stock, \$0.01 par value per share; 400,000,000 shares authorized; 	940,000	940,000
168,450,453 and 164,901,950 shares issued and outstanding at September 30, 2019 and December 31, 2018, respectively Additional paid-in capital. Retained earnings. Accumulated other comprehensive income (loss) Total Shareholders' Equity Total Liabilities and Shareholders' Equity	1,685 4,198,442 4,281,249 9,830 9,431,206 \$ 111,028,735	1,649 4,024,306 3,731,205 (19,383) 8,677,777 \$ 99,205,204

FIRST REPUBLIC BANK CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME (Unaudited)

		Quarter Ended September 30,			Nine Months Ended September 30,			
(\$ in thousands, except per share amounts)		2019		2018	2019		2018	
Interest income:								
Loans	\$	764,468	\$	633,794	\$ 2,205,884	\$	1,765,019	
Investments		134,099		134,111	401,908		406,373	
Other		5,779		5,237	15,767		15,065	
Cash and cash equivalents		5,430		6,896	18,966		16,494	
Total interest income		909,776		780,038	2,642,525		2,202,951	
Interest expense:								
Deposits		134,917		81,438	371,852		193,852	
Borrowings.		79,874		64,146	226,624		175,194	
Total interest expense.		214,791		145,584	598,476		369,046	
Net interest income		694,985		634,454	2,044,049		, , , , , , , , , , , , , , , , , , , ,	
							1,833,905	
Provision for loan losses		16,711		18,633	52,111	_	51,003	
Net interest income after provision for loan losses		678,274		615,821	1,991,938		1,782,902	
Noninterest income:								
Investment management fees		83,582		88,560	262,226		249,602	
Brokerage and investment fees		12,673		7,207	28,619		23,770	
Insurance fees.		2,712		1,851	8,522		4,646	
Trust fees		4,105		3,599	12,221		10,694	
Foreign exchange fee income		11,685		8,439	30,661		25,383	
Deposit fees		6,563		6,225	19,462		18,490	
Loan and related fees		5,341		4,091	13,644		11,842	
Loan servicing fees, net		2,347		3,151	9,560		9,856	
Gain on sale of loans		122		303	466		5,037	
Gain (loss) on investment securities		(683)		(1,655)	(1,895)		6,515	
Income from investments in life insurance		12,152		11,608	31,536		30,697	
Other income		1,608		996	4,853		3,366	
Total noninterest income		142,207		134,375	419,875		399,898	
Noninterest expense:								
Salaries and employee benefits		309,655		279,248	920,432		828,207	
Information systems		66,612		59,259	204,059		177,753	
Occupancy		50,722		38,792	142,204		112,180	
Professional fees		17,507		15,718	45,623		44,720	
Advertising and marketing.		15,912		13,527	48,346		40,575	
FDIC assessments		9,748		17,679	27,847		49,275	
Other expenses		63,794		59,776	199,105		165,427	
Total noninterest expense		533,950		483,999	1,587,616		1,418,137	
Income before provision for income taxes		286,531		266,197	824,197		764,663	
Provision for income taxes		51,687		52,651	140,198		142,253	
		234,844		213,546	683,999		,	
Net income Dividends on preferred stock							622,410	
Net income available to common shareholders	¢	12,787	\$	17,112 196,434	<u>38,362</u> <u>\$ 645,637</u>	\$	41,497	
Net income available to common shareholders	\$	222,057		<i>.</i>		\$	580,913	
Net income.	\$	234,844	\$	213,546	\$ 683,999	\$	622,410	
Other comprehensive income (loss), net of tax:								
Net unrealized gain on securities transferred from held-to-maturity to available-for-sale.		—		—	—		12,305	
Net unrealized gain (loss) on securities available-for-sale		9,354		(4,045)	27,725		(10,126)	
Reclassification of (gain) loss on securities available-for-sale to net income		625		545	2,044		(17,719)	
Amortization of unrealized gain on securities transferred from available-for-sale to held-to-maturity		(170)		(204)	(556)		(843)	
Other comprehensive income (loss)		9,809		(3,704)	29,213		(16,383)	
Comprehensive income	\$	244,653	\$	209,842	\$ 713,212	\$	606,027	
Basic earnings per common share	\$	1.32	\$	1.20	\$ 3.85	\$	3.58	
Diluted earnings per common share	\$	1.31	\$	1.19	\$ 3.81	\$	3.52	
	Ŷ	1.21	÷	1.17	÷ 5.01	Ŷ	5.52	

FIRST REPUBLIC BANK CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (Unaudited)

(in thousands, except share amounts)	Common Stock Shares	Preferred Stock		ommon Stock	Additional Paid-in Capital	Retained Earnings	Co	Accumulated Other omprehensive ncome (Loss)	Sh	Total areholders' Equity
At or for the Quarters Ended Se	ptember 30, 20	19 and 2018								
Balance at June 30, 2019	168,176,437	\$ 940,000	\$	1,682	\$4,186,304	\$ 4,091,636	\$	21	\$	9,219,643
Net income	—	_		_	—	234,844				234,844
Other comprehensive income	—	_		_	25 470	_		9,809		9,809 25,470
Stock compensation expense Net issuance of common stock					25,470					25,470
under stock plans Dividends on preferred stock	274,016	—		3	(13,332)	—				(13,329)
(see Note 11) Dividends on common stock	—	—		—	—	(12,787)		—		(12,787)
(\$0.19/share)	168,450,453	<u> </u>	\$	1,685	\$4,198,442	(32,444) \$4,281,249	\$	9,830	\$	(32,444) 9,431,206
Balance at September 50, 2019			-					· · · · · ·	_	
Balance at June 30, 2018	162,638,209	\$1,140,000	\$	1,626	\$3,772,323	\$3,379,725	\$	(17,701)	\$	8,275,973
Net income	—			_		213,546		(2 704)		213,546
Other comprehensive loss Issuance of common stock, net	2,000,000	_		20	200,553	_		(3,704)		(3,704) 200,573
Stock compensation expense	2,000,000	_			200,555	_		_		25,541
Net issuance of common stock					,					25,541
under stock plans Dividends on preferred stock	122,447	_		2	1,729	_		_		1,731
(see Note 11) Dividends on common stock	—	—		—	—	(17,112)		—		(17,112)
(\$0.18/share)	—	—		—	—	(29,861)		—		(29,861)
Balance at September 30, 2018	164,760,656	\$1,140,000	\$	1,648	\$4,000,146	\$3,546,298	\$	(21,405)	\$	8,666,687
At or for the Nine Months Ende	d September 30	, 2019 and 20	18							
Balance at December 31, 2018.	164,901,950	\$ 940,000	\$	1,649	\$4,024,306	\$3,731,205	\$	(19,383)	\$	8,677,777
Net income	—	_		_		683,999		—		683,999
Other comprehensive income	—	_		_				29,213		29,213
Issuance of common stock, net	2,000,000	—		20	170,565	_		_		170,585
Stock compensation expense	—	—		—	76,824	—		—		76,824
Net issuance of common stock under stock plans	1,548,503	_		16	(73,253)	_		_		(73,237)
Dividends on preferred stock (see Note 11)	_	_		_	_	(38,362)		_		(38,362)
Dividends on common stock (\$0.56/share)	_	_		_	_	(95,593)		_		(95,593)
Balance at September 30, 2019	168,450,453	\$ 940,000	\$	1,685	\$4,198,442	\$4,281,249	\$	9,830	\$	9,431,206
Balance at December 31, 2017.	161,695,803	\$ 990,000	\$	1,617	\$3,778,913	\$ 3,051,611	\$	(3,840)	\$	7,818,301
Cumulative adjustments from adoption of new accounting	101,090,000	\$ 770,000	Ψ	1,017	\$ 6,776,910	\$ 0,001,011	Φ	(0,010)	ψ	7,010,001
guidance	_	_			—	1,334		(1,182)		152
Balance at January 1, 2018	161,695,803	990,000		1,617	3,778,913	3,052,945		(5,022)		7,818,453
Net income	_	—		_	—	622,410		—		622,410
Other comprehensive loss	—	—		—	—	—		(16,383)		(16,383)
Issuance of preferred stock, net . Redemption of preferred stock	_	300,000 (150,000)		_	(9,841)	_		_		290,159 (150,000)
Issuance of common stock, net.	2,000,000			20	200,553	_		_		200,573
Stock compensation expense	— —	_		_	66,591	_		_		66,591
Net issuance of common stock under stock plans	1,064,853	_		11	(36,070)	_		_		(36,059)
Dividends on preferred stock (see Note 11)	_	_		_	_	(41,497)		_		(41,497)
Dividends on common stock (\$0.53/share)	_	_		_	_	(87,560)		_		(87,560)
Balance at September 30, 2018	164,760,656	\$1,140,000	\$	1,648	\$4,000,146	\$3,546,298	\$	(21,405)	\$	8,666,687
- /			_				—		_	

FIRST REPUBLIC BANK CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

	Nine Months Ended September 30,			
(\$ in thousands)		2019		2018
Operating Activities:				
Net income	\$	683,999	\$	622,410
Adjustments to reconcile net income to net cash provided by operating activities:				
Provision for loan losses		52,111		51,003
Depreciation, amortization and accretion, net		87,594		70,559
Amortization of mortgage servicing rights		10,268		12,939
Provision for mortgage servicing rights in excess of fair value.		630		
Deferred income taxes		(43,595)		(76,048
Gain on sale of loans		(466)		(5,037
(Gain) loss on investment securities		1,895		(6,515
Noncash cost of stock plans		76,824		66,591
Loans originated or purchased for sale		(381,730)		(200,340
Proceeds from sales and principal repayments of loans held for sale		95,076		259,682
(Increase) decrease in other assets		59,006		(37,525
Increase in other liabilities.		1,160,592		388,325
Net Cash Provided by Operating Activities.		1,802,204		1,146,044
Investing Activities:		1,002,204		1,140,044
Loan originations, net of principal collections		(10,514,196)		(10,197,853
Loans purchased.		(14,667)		(548,722
Loans sold		151,256		748,118
Purchases of securities available-for-sale		(401,242)		2 4 4 7 0 0 4
Proceeds from sales of securities available-for-sale		695,306		2,447,894
Proceeds from maturities and paydowns of securities available-for-sale		411,416		308,758
Purchases of securities held-to-maturity		(2,891,114)		(623,928
Proceeds from maturities and paydowns of securities held-to-maturity		1,326,575		389,970
Purchases of FHLB stock and other investments		(232,706)		(132,286
Proceeds from redemptions of FHLB stock.		176,816		95,580
Purchases of investments in life insurance		(18,147)		
Net change in tax credit and other investments		(97,653)		(133,978
Additions to premises, equipment and leasehold improvements, net		(121,016)		(99,246
Net Cash Used for Investing Activities		(11,529,372)		(7,745,693
Financing Activities:				
Net increase in deposits		6,659,186		5,840,850
Net increase in short-term borrowings.		675,000		
Proceeds from long-term debt		4,700,000		3,300,000
Repayment of long-term debt		(2,900,000)		(2,000,000
Net proceeds from issuance of preferred stock		_		290,159
Redemption of preferred stock.		_		(150,000
Net proceeds from issuance of common stock		170,585		200,573
Proceeds from issuance of common stock under employee stock purchase plan		13,193		8,347
Proceeds from stock options exercised		83		6
Payments of employee taxes withheld from share-based awards		(86,483)		(44,605
Dividends on preferred stock.		(38,362)		(41,497
Dividends on common stock		(95,593)		(87,560
Net Cash Provided by Financing Activities		9,097,609		7,316,273
Increase (Decrease) in Cash and Cash Equivalents		(629,559)		716,624
Cash and Cash Equivalents at the Beginning of Period		2,811,159		2,297,021
Cash and Cash Equivalents at the End of Period	\$	2,181,600	\$	3,013,645
	Ψ	2,101,000	Ψ	J,01J,0TJ
Supplemental Disclosure of Cash Flow Items:				
Cash paid:	¢	500 (00	¢	250 241
Interest	\$	598,602	\$	350,241
Income taxes	\$	120,340	\$	67,227
		e	*	
Non-cash activities:	-		(1)	
Transfer of loans to held for sale	\$	86,763	\$,
	\$ \$ \$	86,763 279,107	ծ \$ \$	994,318 276,925 2,096,497

Note 1. Summary of Significant Accounting Policies

Basis of Presentation and Organization

First Republic Bank ("First Republic" or the "Bank") is a California-chartered commercial bank and trust company headquartered in San Francisco with deposits insured by the Federal Deposit Insurance Corporation ("FDIC"). First Republic has operated for 34 years and the current legal entity has been operating since July 1, 2010. Our consolidated financial statements include the accounts of First Republic and the following wholly-owned subsidiaries: First Republic Investment Management, Inc. ("FRIM"), First Republic Securities Company, LLC ("FRSC"), First Republic Trust Company of Delaware LLC ("FRTC Delaware"), First Republic Lending Corporation ("FRLC") and Gradifi, Inc. ("Gradifi"). All significant intercompany balances and transactions have been eliminated.

The accompanying consolidated financial statements are unaudited, but in the opinion of management, reflect all adjustments necessary for a fair presentation of the Bank's financial position and results of operations. All such adjustments were of a normal and recurring nature. These consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP") for interim financial information and with the instructions to the Quarterly Report on Form 10-Q adopted by the FDIC. These consolidated financial statements are intended to be read in conjunction with the Bank's consolidated financial statements, and notes thereto, for the year ended December 31, 2018, included in the Bank's Annual Report on Form 10-K filed with the FDIC (the "2018 Form 10-K"). Operating results for the interim periods disclosed herein are not necessarily indicative of the results that may be expected for a full year or any future period.

Nature of Operations

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

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

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

Gradifi is a corporate provider of education-related benefit plans. Through Gradifi, employers can make direct contributions to education debt repayment or savings plans for their employees and provide employees with the ability to refinance their existing student loans with options from multiple lenders.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. Actual results could differ from these estimates. Material estimates subject to change include those related to allowance for loan losses, goodwill, identifiable intangible assets, fair value measurements, and income taxes.

Reclassifications

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

Accounting Standards Adopted in 2019

During the nine months ended September 30, 2019, the Bank adopted the following Accounting Standards Updates ("ASUs") issued by the Financial Accounting Standards Board ("FASB"):

ASU 2016-02—Leases (Accounting Standards Codification ("ASC") 842) and subsequent related ASUs

The Bank adopted this guidance effective January 1, 2019. This guidance was adopted using a modified retrospective approach. The Bank elected to record a cumulative effect adjustment without adjusting prior period comparative financial statements. In addition, the Bank elected the package of transition practical expedients, which among other things, allowed the Bank to carry forward the classification of its leases.

Under ASC 842, lessees are required to recognize a lease liability for the obligation to make lease payments and a corresponding right-of-use asset representing the right to use the underlying asset for the lease term on the balance sheet. The liability is recognized at the present value of lease payments discounted using the rate implicit in the lease or the incremental borrowing rate. The asset is measured at the amount of the liability adjusted for any direct incremental costs, prepaid lease payments and lease incentives received. The Bank recorded lease assets and liabilities of \$578.5 million and \$619.2 million, respectively, on its consolidated balance sheet effective January 1, 2019. There was no impact to the Bank's consolidated statement of cash flows upon adoption, since the net impact of all adjustments recorded upon transition, which totaled \$535.6 million, represented non-cash activity. In addition, there was no cumulative effect adjustment recorded to retained earnings upon adoption.

For operating leases, ASC 842 did not significantly change the recognition or measurement of lease expense on the income statement, which is recognized on a straight-line basis over the lease term. Variable lease payments not included in the straight-line lease expense are expensed as incurred.

ASC 842 also requires disclosure of both quantitative and qualitative information about the Bank's leases. See Note 6, "Leases," for these disclosures.

Recent Accounting Standards

The following ASUs have been issued by the FASB, but were not yet effective as of September 30, 2019:

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

ASC 326, which was issued in June 2016, revises the methodology for estimating credit losses on loans receivable, held-to-maturity debt securities, and unfunded loan commitments. Under ASC 326, the current expected credit losses ("CECL") model is based on lifetime expected losses, rather than incurred losses, and requires the recognition of credit loss expense in the statement of income and a related allowance for credit losses on the balance sheet at the time of origination or purchase of a loan receivable or held-to-maturity debt security. Subsequent changes in this estimate are recorded through credit loss expense and related allowance. The CECL model requires the use of not only relevant historical experience and current conditions, but also reasonable and supportable forecasts of future events and circumstances, thus incorporating a broad range of information in developing credit loss estimates, which could result in significant changes to both the timing and amount of credit loss expense and allowance.

Under ASC 326, available-for-sale debt securities are evaluated for impairment if fair value is less than amortized cost. Estimated credit losses are recorded if the present value of expected future cash flows is less than amortized cost, and are recorded through a credit loss expense and an allowance, rather than a write-down of the investment. Changes in fair value that are not credit-related will continue to be recorded in other comprehensive income. Certain additional disclosures are required.

The Bank will adopt this guidance effective January 1, 2020 using a modified retrospective approach. The Bank is currently in the process of implementing and validating the credit loss models under the new guidance, refining and calibrating qualitative adjustment factors, and performing parallel run processes. For its loan portfolio, the Bank intends to forecast losses over a two year reasonable and supportable period with a one year reversion period to historical loss rates. For its held-to-maturity debt securities, the Bank plans to utilize a three year forecast period with an immediate reversion to historical loss rates. The impact to the allowance for credit losses at the adoption date will depend on the Bank's portfolio composition, as well as the macroeconomic forecasts at the time of adoption, as well as the finalization of models and qualitative adjustments. Based on its portfolio composition at September 30, 2019 and the macroeconomic forecasts available during the third quarter 2019 parallel run, the Bank currently estimates an overall change in allowance for credit losses for loans of approximately 5% to 10% from the current levels. The allowance for credit losses for held-to-maturity debt securities is estimated to be insignificant. In addition, the impact to the Bank's regulatory capital ratios (on a fully phased-in basis) upon adoption of this guidance is estimated to be less than 10 basis points. Throughout the remainder of the year, the Bank will continue to make refinements to its models and assumptions, calibrate qualitative adjustment factors, and address other key implementation matters such as accounting policy decisions, aggregation of data for new required disclosures, and development and implementation of internal controls.

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

The amendments, which were issued in January 2017, simplify the accounting for goodwill impairment by removing Step 2 of the impairment test, which compared the implied fair value of goodwill to its carrying amount. Measuring the implied fair value of goodwill followed the same process as determining the fair value of individual assets and liabilities assumed in a business combination, which was complex. The amended guidance simplifies the impairment test to only require a comparison of the fair value of a reporting unit with its carrying amount, including the effect of tax deductible goodwill on the carrying amount of the reporting unit. Entities still have the option to perform a qualitative assessment to determine if the quantitative impairment test is needed. The Bank will adopt this guidance effective January 1, 2020 on a prospective basis. The Bank does not expect this guidance to have a material impact on its consolidated financial statements.

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

The amendments, which were issued in August 2018, revise certain disclosure requirements for fair value measurements. The amendments remove the requirement to disclose the amounts and reasons for transfers between Levels 1 and 2 of the fair value hierarchy, the Bank's policy for the timing of transfers between levels, and the valuation processes for Level 3 fair value measurements. In addition, the amendments require disclosures of the changes in unrealized gains and losses included in other comprehensive income for recurring Level 3 fair value measurements and the range and weighted average of significant unobservable inputs to develop Level 3 fair value measurements. The Bank will adopt this guidance effective January 1, 2020. Amendments to add new disclosures will be applied prospectively, while amendments to remove disclosures will be applied retrospectively to all periods presented. The Bank does not expect the revised disclosure requirements to have a material impact on its consolidated financial statements.

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

The amendments, which were issued in August 2018, require certain implementation costs for cloud computing arrangements that are service contracts to be capitalized under the internal-use software guidance. Capitalized costs should generally be amortized over the term of the arrangement on a straight-line basis. The amortization term includes fixed non-cancellable periods plus renewal periods the customer is reasonably certain to exercise, termination periods the customer is reasonably certain not to exercise, and periods covered by an option to extend that is controlled by the vendor.

When an arrangement includes multiple elements (e.g., hosting service, software license, professional service), the amendments require the purchase price be allocated based on the relative standalone price of each element. This requirement will also be applicable to internal-use software. The Bank will adopt this guidance effective January 1, 2020 on a prospective basis. The Bank does not expect this guidance to have a material impact on its consolidated financial statements.

Note 2. Investment Securities

The following tables present information related to available-for-sale debt securities, held-to-maturity debt securities, and equity securities measured at fair value:

	September 30, 2019									
(\$ in thousands)		Gross Amortized Unrealized Cost Gains		Gross Unrealized Losses			Fair Value			
Debt securities available-for-sale:										
Agency residential mortgage-backed securities ("MBS")	\$	416,883	\$	4,217	\$	(155)	\$	420,945		
Other residential MBS		4,334		97		(2)		4,429		
Agency commercial MBS		920,844		8,368		(930)		928,282		
Securities of U.S. states and political subdivisions-taxable		47,279		170				47,449		
Total		1,389,340	\$	12,852	\$	(1,087)	\$	1,401,105		
Debt securities held-to-maturity:										
U.S. Government-sponsored agency securities.	\$	558,459	\$	279	\$	(735)	\$	558,003		
Agency residential MBS		2,052,012		10,245		(7,888)		2,054,369		
Agency commercial MBS		3,377,375		61,233		(1,505)		3,437,103		
Securities of U.S. states and political subdivisions:										
Tax-exempt municipal securities		9,637,134		617,584		(1,598)		10,253,120		
Tax-exempt nonprofit debentures		139,830		5,940		_		145,770		
Taxable municipal securities		213,832		16,207				230,039		
Corporate debt securities.		24,080		404				24,484		
	\$	16,002,722	¢	711,892	¢	(11,726)	\$	16,702,888		

(\$ in thousands)	sep	2019
Equity securities (fair value):		
Mutual funds and marketable equity securities	\$	19,736

	December 31, 2018							
(\$ in thousands)	A	Gross Amortized Unrealized Cost Gains			U	Gross nrealized Losses	I	Fair Value
Debt securities available-for-sale:								
Agency residential MBS	\$	26,608	\$	65	\$	(578)	\$	26,095
Other residential MBS		4,581				(29)		4,552
Agency commercial MBS		1,731,293		847		(31,119)		1,701,021
Securities of U.S. states and political subdivisions-taxable		47,275		173		_		47,448
Total	\$	1,809,757	\$	1,085	\$	(31,726)	\$	1,779,116
Debt securities held-to-maturity:								
U.S. Government-sponsored agency securities.	\$	1,044,912	\$		\$	(33,588)	\$	1,011,324
Agency residential MBS		1,868,587				(69,487)		1,799,100
Agency commercial MBS		3,375,409		2,040		(136,597)		3,240,852
Securities of U.S. states and political subdivisions:								
Tax-exempt municipal securities		7,952,605		208,263		(125,725)		8,035,143
Tax-exempt nonprofit debentures		142,508		228		(2,910)		139,826
Taxable municipal securities		52,952		8,327				61,279
Total	\$	14,436,973	\$	218,858	\$	(368,307)	\$	14,287,524
							De	cember 31,

(\$ in thousands)	 2018
Equity securities (fair value):	
Mutual funds and marketable equity securities	\$ 18,719

The Bank pledges investment securities at the Federal Reserve Bank to maintain the ability to borrow at the discount window, or at a correspondent bank as collateral to secure trust funds and public deposits. At September 30, 2019, the carrying value of investment securities pledged was \$2.4 billion, of which \$2.3 billion was unencumbered and available to support additional borrowings.

The following tables present gross unrealized losses and fair value of available-for-sale and held-tomaturity debt securities by length of time that individual securities in each category had been in a continuous loss position:

	September 30, 2019												
	Ι	Less than	12	months		12 month	S O	r more		То	tal		
(\$ in thousands)		Gross Unrealized Losses		Fair Value		Gross Unrealized Losses		Fair Value		Gross nrealized Losses	Fair Value		Total Number of Securities
Debt securities available-for- sale:													
Agency residential MBS	\$	_	\$	_	\$	(155)	\$	10,152	\$	(155)	\$	10,152	16
Other residential MBS		_		_		(2)		486		(2)		486	2
Agency commercial MBS		(411)		126,879		(519)		91,686		(930)		218,565	5
Total	\$	(411)	\$	126,879	\$	(676)	\$	102,324	\$	(1,087)	\$	229,203	23
Debt securities held-to- maturity:													
U.S. Government-sponsored agency securities	\$	(735)	\$	199,265	\$	_	\$	_	\$	(735)	\$	199,265	2
Agency residential MBS		(486)		202,001		(7,402)		809,002		(7,888)		1,011,003	20
Agency commercial MBS						(1,505)		475,799		(1,505)		475,799	9
Securities of U.S. states and political subdivisions:													
Tax-exempt municipal securities		(1,598)		581,420		_				(1,598)		581,420	39
Total	\$	(2,819)	\$	982,686	\$	(8,907)	\$1	,284,801	\$	(11,726)	\$2	2,267,487	70

	December 31, 2018											
	Ι	less than	12	months		12 month	IS O	r more		То	tal	
(\$ in thousands)	Gross Unrealized Losses		F	Fair Value		Gross realized Losses	Fair Value		Gross Unrealized Losses		Fair Value	Total Number of Securities
Debt securities available-for- sale:												
Agency residential MBS	\$	(8)	\$	1,266	\$	(570)	\$	16,941	\$	(578)	\$ 18,207	23
Other residential MBS		(17)		4,021		(12)		531		(29)	4,552	3
Agency commercial MBS		(3,789)		784,939		(27,330)		689,386		(31,119)	1,474,325	35
Total	\$	(3,814)	\$	790,226	\$	(27,912)	\$	706,858	\$	(31,726)	\$1,497,084	61
Debt securities held-to- maturity:												
U.S. Government-sponsored agency securities	\$	(592)	\$	57,908	\$	(32,996)	\$	953,416	\$	(33,588)	\$1,011,324	39
Agency residential MBS		_		_		(69,487)	1	1,799,100		(69,487)	1,799,100	49
Agency commercial MBS		(5,084)		233,573	(131,513)	2	2,716,170	((136,597)	2,949,743	82
Securities of U.S. states and political subdivisions:												
Tax-exempt municipal securities		(9,429)		644,391	(116,296)	2	2,206,671	((125,725)	2,851,062	309
Tax-exempt nonprofit debentures		(1,167)		57,918		(1,743)		19,240		(2,910)	77,158	4
Total	\$	(16,272)	\$	993,790	\$(352,035)	\$7	7,694,597	\$((368,307)	\$8,688,387	483

The Bank conducts a regular assessment of its investment securities portfolio to determine whether securities are other-than-temporarily impaired considering, among other factors, the nature of the securities, credit ratings or financial condition of the issuer, the extent and duration of the unrealized loss, expected cash flows, market conditions and the Bank's ability to hold the securities through the anticipated recovery period.

The Bank does not intend to sell the available-for-sale or held-to-maturity debt securities included in the tables above and has concluded that it is more likely than not that it will not be required to sell any of the investments prior to recovery of the amortized cost basis.

U.S. Government-Sponsored Agency Securities. At September 30, 2019, the unrealized losses on the Bank's investments in U.S. Government-sponsored agency securities are primarily due to movement in market interest rates and spreads since the securities were purchased and are not due to credit losses, given the explicit or implicit guarantees provided by agencies of the U.S. Government. The Bank expects to continue to receive all contractual principal and interest payments. Therefore, the Bank does not consider these investments to be other-than-temporarily impaired.

Agency Residential MBS and Agency Commercial MBS. At September 30, 2019, the unrealized losses on the Bank's investments in agency residential MBS and agency commercial MBS are primarily due to movement in market interest rates and spreads since the securities were purchased and are not due to credit losses, given the explicit or implicit guarantees provided by the U.S. Government or agencies of the U.S. Government. The Bank expects to continue to receive all contractual principal and interest payments. Therefore, the Bank does not consider these investments to be other-than-temporarily impaired.

Tax-Exempt Municipal Securities. At September 30, 2019, the unrealized losses on the Bank's investments in tax-exempt municipal securities are primarily due to increases in market interest rates since the securities were purchased and are not due to the credit quality of the securities. The Bank monitors these securities regularly to determine if any changes in ratings have occurred and conducts its internal credit analysis to determine if the issuer has experienced any change in financial condition that may result in a potential loss of the contractual principal and interest payments. The Bank expects to continue to receive all contractual principal and interest payments.

At both September 30, 2019 and December 31, 2018, there were no other-than-temporary impairment charges on debt securities recognized in accumulated other comprehensive income (loss). In addition, there were no other-than-temporary impairment charges on debt securities recognized in earnings during the quarters and nine months ended September 30, 2019 and 2018.

During the nine months ended September 30, 2018, the Bank performed a repositioning of its investment portfolio and sold certain available-for-sale U.S. Treasury securities, U.S. Government-sponsored agency securities, agency residential MBS, agency commercial MBS, and tax-exempt municipal securities with proceeds of \$2.2 billion, and recognized a gain on sale of \$10.7 million.

The following table presents proceeds received from sales of investment securities:

		Quarte Septen		Nine Months Ended September 30,				
(\$ in thousands)		2019		2018	2019			2018
Debt securities available-for-sale: Sales proceeds	\$	501,677	\$	114,514	\$	695,306	\$	2,447,894

The following table presents gains and losses on investment securities:

(\$ in thousands)		Quarter Septem		Nine Months Ended September 30,				
		2019		2018		2019		2018
Debt securities available-for-sale:								
Gross realized gains on sales	\$	200	\$		\$	200	\$	72,574
Gross realized losses on sales		(1,090)		(779)		(3,112)		(64,863)
Equity securities (fair value):								
Net change in fair value		207		(876)		1,017		(1,196)
Total gain (loss) on investment securities.	\$	(683)	\$	(1,655)	\$	(1,895)	\$	6,515

The following table presents interest income on investment securities:

(\$ in thousands)		Quarte Septen		Nine Months Ended September 30,				
		2019		2018		2019		2018
Interest income on tax-exempt securities	\$	80,296	\$	73,233	\$	232,156	\$	225,387
Interest income on taxable securities		53,803		60,878		169,752		180,986
Total	\$	134,099	\$	134,111	\$	401,908	\$	406,373

The following table presents contractual maturities of debt securities available-for-sale and held-tomaturity. Actual maturities for certain U.S. Government agency securities, U.S. Government-sponsored agency securities and municipal securities may occur earlier than their stated contractual maturities because the note issuers may have the right to call outstanding amounts ahead of their contractual maturities. In addition, the remaining contractual principal maturities for MBS do not consider prepayments. Expected remaining maturities for MBS can differ from contractual maturities because borrowers have the right to prepay their mortgage obligations, with or without penalties, prior to contractual maturity.

	September 30, 2019					December 31, 2018			
(\$ in thousands)		Amortized Cost		Fair Value		Amortized Cost		Fair Value	
Available-for-sale:									
Due in one year or less	\$	57	\$	57	\$	12	\$	12	
Due after one year through five years		110,670		110,387		352,542		352,845	
Due after five years through ten years		122,166		121,580		659,459		655,810	
Due after ten years		1,156,447		1,169,081		797,744		770,449	
Total	\$	1,389,340	\$	1,401,105	\$	1,809,757	\$	1,779,116	
Held-to-maturity:									
Due in one year or less	\$	270,539	\$	275,660	\$	386,762	\$	390,440	
Due after one year through five years		324,919		358,181		499,827		536,214	
Due after five years through ten years		434,564		451,622		736,569		729,623	
Due after ten years		14,972,700		15,617,425		12,813,815		12,631,247	
Total	\$	16,002,722	\$	16,702,888	\$	14,436,973	\$	14,287,524	

Note 3. Loans and Allowance for Loan Losses

Loan Profile

The following table presents the recorded investment in the Bank's loan portfolio and allowance for loan losses:

(\$ in thousands)	Se	ptember 30, 2019	De	ecember 31, 2018
Single family (1-4 units)	\$	44,882,363	\$	37,955,252
Home equity lines of credit		2,530,740		2,542,713
Multifamily (5+ units)		11,725,331		10,357,839
Commercial real estate.		7,504,334		6,677,440
Single family construction		743,699		645,924
Multifamily/commercial construction		1,442,896		1,576,582
Total real estate mortgages		68,829,363		59,755,750
Business		11,564,863		10,998,503
Stock secured		1,610,914		1,432,911
Other secured		1,293,084		1,105,751
Unsecured		3,006,586		2,572,367
Total other loans		17,475,447		16,109,532
Total loans		86,304,810		75,865,282
Less:				
Allowance for loan losses		(485,465)		(439,048)
Loans, net	\$	85,819,345	\$	75,426,234
Loans held for sale	\$	31,693	\$	98,985

Real estate loans are secured by single family, multifamily and commercial real estate properties and generally mature over periods of up to thirty years. At September 30, 2019 and December 31, 2018, approximately 51% and 50%, respectively, of the total loan portfolio was secured by California real estate. At September 30, 2019, approximately 67% of single family mortgages fully and evenly amortize until maturity following an initial interest-only period of generally ten years, compared to 68% at December 31, 2018.

As of September 30, 2019, the Bank had pledged \$41.4 billion of loans to secure borrowings of \$11.2 billion from the Federal Home Loan Bank (the "FHLB"), although only approximately \$12.6 billion of collateral was required in connection with the outstanding FHLB advances.

Credit Quality

The Bank has two classes of loans: (1) non-impaired loans, which include both purchased and originated non-impaired loans and (2) impaired loans, which include both purchased and originated non-impaired loans that subsequently became impaired under ASC 310-10-35, "Receivables—Subsequent Measurement," and purchased credit-impaired loans subject to ASC 310-30, "Receivables—Loans and Debt Securities Acquired with Deteriorated Credit Quality."

A loan is considered past due if the required principal and interest payment has not been received as of the day after such payment was due. The tables below present an aging analysis of loans and loans on nonaccrual status by class. Of the loans on nonaccrual status, at September 30, 2019, \$111.5 million were current, compared to \$21.1 million at December 31, 2018. The increase in nonaccrual loans at September 30, 2019 was from one lending relationship totaling \$91.4 million, consisting of single family, home equity lines of credit and non-owner occupied single family construction loans.

(\$ in thousands)	30-59 Days Past Due	60-89 Days Past Due	90 Days or More Past Due	Total Past Due	Current	Total Loans	90 Days or More Past Due and Accruing	Nonaccrual
At September 30, 2019								
Single Family (1-4 units):								
Non-impaired	\$ 10,237	\$ 148	\$ 2,321	\$ 12,706	\$44,810,010	\$44,822,716	\$ —	\$ 4,983
Impaired	3,595	762	13,443	17,800	41,847	59,647		47,003
	13,832	910	15,764	30,506	44,851,857	44,882,363		51,986
Home Equity Lines of Credit:								
Non-impaired	1,211	475	994	2,680	2,515,987	2,518,667	_	1,271
Impaired		1,049	633	1,682	10,391	12,073		9,883
	1,211	1,524	1,627	4,362	2,526,378	2,530,740		11,154
Multifamily (5+ units):								
Non-impaired	_	_	_	_	11,714,983	11,714,983	_	_
Impaired	_		_	_	10,348	10,348	_	_
I			_		11,725,331	11,725,331		
Commercial Real Estate:					, ,	, ,		
Non-impaired					7,499,834	7,499,834		
Impaired	_		_	_	4,500	4,500	_	
					7,504,334	7,504,334		
					7,504,554	7,504,554		
Single Family Construction:					- 13 (00)	712 (00)		
Non-impaired	_		—	_	743,699	743,699		
Multifamily/Commercial Construction:								
Non-impaired	_	_	_	_	1,372,852	1,372,852	_	_
Impaired					70,044	70,044		70,044
	_	_	_	_	1,442,896	1,442,896	_	70,044
Business:								
Non-impaired	582		_	582	11,557,203	11,557,785	_	668
Impaired	_	_	993	993	6,085	7,078		2,268
	582		993	1,575	11,563,288	11,564,863		2,936
Stock Secured:								
Non-impaired	_		_	_	1,610,914	1,610,914		
					1,010,714	1,010,714		
Other Secured:								
Non-impaired	639		_	639	1,292,445	1,293,084		
Unsecured:								
Non-impaired	511	—	—	511	3,005,873	3,006,384		608
Impaired	200			200	2	202		200
	711	_	_	711	3,005,875	3,006,586	—	808
Total	\$ 16,975	\$ 2,434	\$ 18,384	\$ 37,793	\$86,267,017	\$86,304,810	\$ —	\$ 136,928

(\$ in thousands)	30-59 Days Past Due	60-89 Days Past Due	90 Days or More Past Due	Total Past Due	Current	Total Loans	90 Days or More Past Due and Accruing	Nonaccrual
At December 31, 2018								
Single Family (1-4 units):								
Non-impaired	\$ 5,905	\$ 1,370	\$ 3,479	\$ 10,754	\$37,915,612	\$37,926,366	\$	\$ 4,982
Impaired		288	8,927	9,215	19,671	28,886		18,848
	5,905	1,658	12,406	19,969	37,935,283	37,955,252	_	23,830
Home Equity Lines of Credit:								
Non-impaired	2,130		607	2,737	2,527,547	2,530,284	_	1,518
Impaired	2,892	1,512	2,843	7,247	5,182	12,429		8,008
	5,022	1,512	3,450	9,984	2,532,729	2,542,713		9,526
Multifamily (5+ units):								
Non-impaired	_		_	_	10,345,471	10,345,471	_	_
Impaired	_		_	_	12,368	12,368	_	2,056
r					10,357,839	10,357,839		2,056
Commercial Real Estate:								
Non-impaired					6,670,954	6,670,954		266
Impaired		_			6,486	6,486	_	200
impuneu					6,677,440	6,677,440		266
					0,077,110	0,077,110		200
Single Family Construction:					(45.024	(15.024		
Non-impaired	_	_	_	_	645,924	645,924	_	—
Multifamily/Commercial								
Construction:					1 576 592	1 576 592		
Non-impaired				_	1,576,582	1,576,582	_	_
Business:								
Non-impaired	—	—	—	_	10,988,098	10,988,098	—	331
Impaired			3,252	3,252	7,153	10,405		6,209
	_	—	3,252	3,252	10,995,251	10,998,503	—	6,540
Stock Secured:								
Non-impaired	—		—	—	1,432,911	1,432,911	_	
Other Secured:								
Non-impaired	_		_	_	1,105,751	1,105,751	_	_
1					-,,	-,,		
Unsecured:	200	296		196	2 560 286	2 560 972		1 754
Non-impaired	200	286 2,493	_	486 2,493	2,569,386 2	2,569,872 2,495		1,754 2,493
	200	2,493		2,493	2,569,388	2,493		4,247
		-	-					
Total	\$ 11,127	\$ 5,949	\$ 19,108	\$ 36,184	\$75,829,098	\$75,865,282	<u>\$ </u>	\$ 46,465

The interest income related to nonaccrual loans at each respective period end is presented in the following table:

	 Quarter Septen		Nine Months Ended September 30,			
(\$ in thousands)	 2019	2018		2019		2018
Actual interest income recognized	\$ 	\$ _	\$		\$	
Interest income under original terms	\$ 1,745	\$ 538	\$	3,150	\$	1,348

We perform annual reviews of our larger multifamily, commercial real estate and commercial business loans. For loans that are criticized or classified, the Bank's Special Assets Committee reviews loan grades, reserves and accrual status on a quarterly or more frequent basis. The Bank's internal loan grades apply to all loans and are as follows:

Pass—These loans are performing substantially as agreed, with no current identified material weakness in repayment ability. Any credit or collateral exceptions existing with respect to the loan should be minimal and immaterial, in the process of correction, and not such that they could subsequently impair credit quality and introduce risk of collection.

Special Mention—These loans have potential weaknesses and deserve management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the loan or of the Bank's credit position at some future date. However, these loans do not expose the Bank to sufficient risk to warrant adverse classification.

Substandard—These loans are inadequately protected by the current worth and paying capacity of the obligor or of the collateral pledged, if any. These loans have a well-defined weakness that jeopardizes the liquidation of the debt.

Doubtful—These loans have weaknesses that make collection or liquidation in full highly improbable. The possibility of some loss is extremely high, but because of certain important and reasonable specific pending factors that may work to the advantage and strengthening of the loan, its classification as a loss is deferred until a more exact status may be determined.

The following tables present the recorded investment in loans, by credit quality indicator and by class:

(\$ in thousands)	Pass	Special Mention	Substandard	Doubtful	Total
At September 30, 2019					
Single Family (1-4 units):					
Non-impaired	\$44,710,398	\$ 41,867	\$ 70,451	\$ —	\$44,822,716
Impaired		451	47,002		59,647
	44,722,592	42,318	117,453	—	44,882,363
Home Equity Lines of Credit:					
Non-impaired.	2,494,736	10,111	13,820	—	2,518,667
Impaired.		822	10,230		12,073
	2,495,757	10,933	24,050	—	2,530,740
Multifamily (5+ units):					
Non-impaired.	11,714,317	666	—	—	11,714,983
Impaired.	/				10,348
	11,724,665	666	—	—	11,725,331
Commercial Real Estate:					
Non-impaired.	7,459,148	36,747	3,939	—	7,499,834
Impaired.					4,500
	7,463,648	36,747	3,939	_	7,504,334
Single Family Construction:					
Non-impaired	731,528	3,413	8,758	_	743,699
Multifamily/Commercial Construction:					
Non-impaired.	1,371,783	_	1,069		1,372,852
Impaired.	, ,	_	70,044		70,044
puiteu	1,371,783		71,113		1,442,896
	-,,,		,		-,,-,-
Business:	11 51 6 0 6 5	24.210	15.041	(())	11 557 705
Non-impaired.	11,516,865	24,310	15,941	669	11,557,785
Impaired		1,022	2,268		7,078
	11,520,653	25,332	18,209	669	11,564,863
Stock Secured:	1 (10 (10	0.50			1 (10 01 1
Non-impaired.	1,610,662	252			1,610,914
Other Secured:					
Non-impaired	1,292,834	250	—	—	1,293,084
Unsecured:					
Non-impaired.	2,996,275	1,231	8,270	608	3,006,384
Impaired.	, ,		200		202
	2,996,277	1.231	8.470	608	3,006,586
T - 1		, -	- , · ·		
Total	\$85,930,399	\$ 121,142	\$ 251,992	\$ 1,277	\$86,304,810

(\$ in thousands)	Pass	Special Mention	Substandard	Doubtful	Total
<u>At December 31, 2018</u>					
Single Family (1-4 units):					
Non-impaired	\$37,842,048	\$ 44,322	\$ 39,996	\$	\$37,926,366
Impaired.	/		19,308		28,886
	37,851,626	44,322	59,304	—	37,955,252
Home Equity Lines of Credit:					
Non-impaired.	2,515,039	12,727	2,518		2,530,284
Impaired.			11,322		12,429
	2,516,146	12,727	13,840	—	2,542,713
Multifamily (5+ units):					
Non-impaired.	10,345,471				10,345,471
Impaired.			2,056		12,368
	10,355,783		2,056		10,357,839
Commercial Real Estate:					
Non-impaired.	6,657,627	9,039	4,288	—	6,670,954
Impaired			4,500		6,486
	6,659,613	9,039	8,788		6,677,440
Single Family Construction: Non-impaired.	643,017	_	2,907	_	645,924
-	,		_,, , ,		•••••
Multifamily/Commercial Construction:	1 575 410		1.1(2		1 576 592
Non-impaired.	1,575,419	_	1,163	_	1,576,582
Business:					
Non-impaired	10,927,492	46,096	14,179	331	10,988,098
Impaired	4,197		6,208		10,405
	10,931,689	46,096	20,387	331	10,998,503
Stock Secured:					
Non-impaired	1,432,911	—	—	_	1,432,911
Other Secured:					
Non-impaired.	1,105,501	250			1,105,751
1	1,100,001	200			1,100,701
Unsecured:			1 (20)		
Non-impaired.	2,562,258	1,231	4,629	1,754	2,569,872
Impaired			2,495	1.754	2,495
	2,562,258	1,231	7,124	1,754	2,572,367
Total	\$75,633,963	\$ 113,665	\$ 115,569	\$ 2,085	\$75,865,282

Other Real Estate Owned and Residential Mortgage Loans in the Process of Foreclosure

As of September 30, 2019 and December 31, 2018, the Bank did not have any residential real estate owned (acquired through foreclosure).

The carrying amount of residential mortgage loans in the process of foreclosure was \$10.6 million and \$6.2 million at September 30, 2019 and December 31, 2018, respectively.

Allowance for Loan Losses

The Bank's allowance for loan losses is evaluated based on its two classes of loans: (1) non-impaired loans, which include both purchased and originated non-impaired loans and (2) impaired loans, which include both purchased and originated non-impaired loans that subsequently became impaired under ASC 310-10-35, and purchased credit-impaired loans subject to ASC 310-30.

Purchased non-impaired loans are monitored to determine if these loans have experienced a deterioration in credit quality based upon their payment status and loan grade. If a deterioration in credit quality has occurred, the Bank evaluates the estimated loss content in the individual loan as compared to the loan's current carrying value, which includes any related purchase accounting discount.

Originated non-impaired loans are collectively evaluated for estimated losses in accordance with ASC 450, "Contingencies," based on groups of loans with similar risk characteristics that align with the loan portfolio segments. The Bank has maintained an allowance for loan loss model that computes loss factors for each segment based upon our historical losses and current portfolio trends.

Any purchased non-impaired and originated non-impaired loans that subsequently became impaired are evaluated under ASC 310-10-35. If determined necessary, a specific reserve will be recorded for these loans. In addition, purchased credit-impaired loans are subject to a quarterly review of expected cash flows. These loans are generally evaluated quarterly by the Bank's Special Assets Committee, unless they have been upgraded to a pass loan. If there is further credit deterioration, an additional specific reserve will be recorded.

The Bank also maintains a qualitative reserve, which represents the qualitative portion of the allowance for loan losses. This qualitative reserve is determined based on management's assessments of the risks that may lead to a loan loss experience different than our historical loss experience and therefore not reflected in the quantitative model. The Bank uses qualitative factors that are intended to address developing external and internal environmental trends and include considerations such as changes in current economic and business conditions, the nature and volume of the Bank's loan portfolio, the existence and effects of credit concentrations, and problem loan trends, along with other external factors, such as competition and the legal and regulatory environment. The allocation to the individual loan portfolios considers the qualitative factors relevant to each portfolio, the degree to which the relevant qualitative factors impacted each loan portfolio, and relative portfolio balances.

The following tables present an analysis of the allowance for loan losses:

(S in thousands)	Sing Fam (1-4 u	nily	E Li	lome quity nes of redit		ltifamily + units)		nmercial al Estate	gle Family	Co	lltifamily/ mmercial nstruction		Business		Stock Secured		Other ecured	Un	secured		Total
At or for the Quarter Ended September 30, 2019									 												
Rollforward of allowance for loan losses:																					
Balance at beginning of period	\$ 7	3,660	\$	13,935	\$	89,427	\$	56,277	\$ 4,450	\$	13,029	\$	184,109	\$	378	\$	6,486	\$	31,344	\$	473,095
Provision (reversal of provision)		3		(549)		10,592		6,486	553		710		(4,286)		(378)		837		2,743		16,711
Charge-offs		(961)		_		_		_	_		_		(3,329)		_		_		(331)		(4,621)
Recoveries		35		25					 				17						203		280
Balance at end of period	\$ 7	2,737	\$	13,411	\$	100,019	\$	62,763	\$ 5,003	\$	13,739	\$	176,511	\$	_	\$	7,323	\$	33,959	\$	485,465
At or for the Nine Months Ended September 30,	<u>2019</u>																				
Rollforward of allowance for loan losses:																					
Balance at beginning of period	\$6	5,402	\$	12,887	\$	80,134	\$	54,907	\$ 3,073	\$	14,687	\$	167,591	\$	8,724	\$	8,301	\$	23,342	\$	439,048
Provision (reversal of provision)		8,110		424		19,885		7,856	1,930		(948)		13,432		(8,724)		(978)		11,124		52,111
Charge-offs		(992)		_		_		_	_		_		(4,558)		_		_		(861)		(6,411)
Recoveries		217		100		_		_	_		_		46		_		_		354		717
Balance at end of period	\$ 7	2,737	\$	13,411	\$	100,019	\$	62,763	\$ 5,003	\$	13,739	\$	176,511	\$		\$	7,323	\$	33,959	\$	485,465
Allowance for loan losses by impairment methodology:																					
Non-impaired	\$ 7	2,737	\$	13,392	\$	100,019	\$	62,609	\$ 5,003	\$	13,739	\$	176,503	\$	—	\$	7,323	\$	33,959	\$	485,284
Impaired		_		19				154	 _				8								181
Total	\$ 7	2,737	\$	13,411	\$	100,019	\$	62,763	\$ 5,003	\$	13,739	\$	176,511	\$		\$	7,323	\$	33,959	\$	485,465
Recorded investment in loans:																					
Non-impaired	\$44,82	2,716	\$ 2,	518,667	\$11	,714,983	\$ 7	,499,834	\$ 743,699	\$	1,372,852	\$1	1,557,785	\$	1,610,914	\$ 1	,293,084	\$ 3	3,006,384	\$8	86,140,918
Impaired	5	9,647		12,073		10,348		4,500	 _		70,044		7,078	_	_		_		202		163,892
Total	\$44,88	2,363	\$ 2,	530,740	\$11	,725,331	\$ 7	,504,334	\$ 743,699	\$	1,442,896	\$1	1,564,863	\$	1,610,914	\$ 1	,293,084	\$ 3	8,006,586	\$8	36,304,810

(S in thousands)	1	Single Family -4 units)]	Home Equity Lines of Credit		ultifamily 5+ units)		mmercial al Estate		ngle Family	Co	ltifamily/ mmercial istruction	_1	Business		Stock ecured		Other ecured	Ur	secured		Total
At or for the Quarter Ended September 30, 2018																						
Rollforward of allowance for loan losses:																						
Balance at beginning of period	\$	56,770	\$	12,538	\$	74,527	\$	50,900	\$	3,200	\$	11,914	\$	152,278	\$	8,339	\$	7,736	\$	19,175	\$	397,377
Provision (reversal of provision)		5,127		543		1,049		1,499		(51)		1,345		7,157		7		501		1,456		18,633
Charge-offs		_		(146)		_		_		_		_		(78)		_		_		(127)		(351)
Recoveries		11		24		_		_		_		—		115		_		—		16		166
Balance at end of period	\$	61,908	\$	12,959	\$	75,576	\$	52,399	\$	3,149	\$	13,259	\$	159,472	\$	8,346	\$	8,237	\$	20,520	\$	415,825
At or for the Nine Months Ended September 30, 2	2018																					
Rollforward of allowance for loan losses:																						
Balance at beginning of period	\$	52,011	\$	13,046	\$	67,605	\$	52,268	\$	2,758	\$	10,513	\$	137,956	\$	6,596	\$	7,850	\$	15,329	\$	365,932
Provision		9,880		325		7,971		131		391		2,746		21,916		1,750		387		5,506		51,003
Charge-offs		_		(497)		_		_		_		_		(639)		_		_		(430)		(1,566)
Recoveries		17		85						_		_		239		_				115		456
Balance at end of period	\$	61,908	\$	12,959	\$	75,576	\$	52,399	\$	3,149	\$	13,259	\$	159,472	\$	8,346	\$	8,237	\$	20,520	\$	415,825
Allowance for loan losses by impairment methodology:					_		_															
Non-impaired.	\$	61,908	\$	12,928	\$	75,576	\$	52,160	\$	3,149	\$	13,259	\$	159,266	\$	8,346	\$	8,237	\$	20,520	\$	415,349
Impaired.		_		31		_		239		_		_		206		_		_		_		476
Total	\$	61,908	\$	12,959	\$	75,576	\$	52,399	\$	3,149	\$	13,259	\$	159,472	\$	8,346	\$	8,237	\$	20,520	\$	415,825
Recorded investment in loans:	-		-		-		-		-				_		_		-		-		_	
Non-impaired.	\$36	5,189,288	\$	2,530,199	\$ 9	9,765,087	\$ 6	5,453,156	\$	654,643	\$	1,422,746	\$1	0,369,998	\$ 1	,371,546	\$ 1	,101,721	\$ 2	2,399,061	\$7	2,257,445
Impaired.		24,426		13,453		14,606		6,498		_		_		12,052		_				17		71,052
Total	\$36	5,213,714	\$	2,543,652	\$ 9	9,779,693	\$ 6	5,459,654	\$	654,643	\$	1,422,746	\$1	0,382,050	\$ 1	,371,546	\$ 1	,101,721	\$ 2	2,399,078	\$ 7	2,328,497

Reserve for Unfunded Commitments

The Bank evaluates reserves for unfunded commitments for home equity lines of credit, single family construction, commercial real estate and multifamily lines of credit, multifamily/commercial construction, business lines of credit and secured/unsecured lines of credit. In determining the level of reserves, the Bank determines the probability of funding for each portfolio segment based on historical utilization statistics specific to that portfolio segment. Construction commitments are assumed to be fully funded, since the construction projects are expected to be completed. Additionally, for unfunded commitments, the Bank applies a loss factor that is consistent with that applied against the funded balance for each portfolio segment. The reserve for unfunded commitments was \$13.5 million and \$13.2 million at September 30, 2019 and December 31, 2018, respectively.

Impaired Loans

The following tables present information related to impaired loans:

	Tot	al	With no allowance		With ar	n allowance re	ecorded
(\$ in thousands)	Recorded Investment	Unpaid Principal Balance	Recorded Investment	Unpaid Principal Balance	Recorded Investment	Unpaid Principal Balance	Related Allowance
At September 30, 2019							
Single family (1-4 units)	\$ 59,647	\$ 59,884	\$ 59,647	\$ 59,884	\$ —	\$	\$ —
Home equity lines of credit	12,073	12,138	11,726	11,774	347	364	19
Multifamily (5+ units)	10,348	10,394	10,348	10,394		—	—
Commercial real estate	4,500	4,500	_		4,500	4,500	154
Multifamily/commercial construction	70,044	70,044	70,044	70,044		_	—
Business	7,078	7,101	6,056	6,079	1,022	1,022	8
Unsecured	202	326	202	326			
Total	\$ 163,892	\$ 164,387	\$ 158,023	\$ 158,501	\$ 5,869	\$ 5,886	\$ 181
<u>At December 31, 2018</u>							
Single family (1-4 units).	\$ 28,886	\$ 29,219	\$ 28,886	\$ 29,219	\$	\$	\$ —
Home equity lines of credit	12,429	12,527	12,429	12,527		_	—
Multifamily (5+ units)	12,368	12,546	12,368	12,546		_	—
Commercial real estate	6,486	6,516	1,986	2,016	4,500	4,500	265
Business	10,405	10,436	9,163	9,194	1,242	1,242	48
Unsecured	2,495	2,630	2,495	2,630	_	_	—
Total	\$ 73,069	\$ 73,874	\$ 67,327	\$ 68,132	\$ 5,742	\$ 5,742	\$ 313

			r Ended nber 30,				ths Ended nber 30,	
	20	19	20	018	20)19	20	18
(\$ in thousands)	Average Recorded Investment	Interest Income Recognized	Average Recorded Investment	Interest Income Recognized	Average Recorded Investment	Interest Income Recognized	Average Recorded Investment	Interest Income Recognized
Single family (1-4 units)	\$ 62,917	\$ 207	\$ 23,905	\$ 118	\$ 46,706	\$ 551	\$ 25,771	\$ 342
Home equity lines of credit	13,121	20	12,513	73	11,958	116	12,892	223
Multifamily (5+ units)	10,345	118	14,647	129	11,347	468	14,756	394
Commercial real estate	5,967	87	7,143	109	6,272	225	8,785	336
Multifamily/ commercial construction	70,419	_	_	_	28,168	_	_	_
Business	7,562	39	14,778	147	8,763	108	14,985	1,118
Unsecured	52	6	94	6	271	19	477	18
Total	\$ 170,383	\$ 477	\$ 73,080	\$ 582	\$ 113,485	\$ 1,487	\$ 77,666	\$ 2,431

Troubled Debt Restructurings

The Bank restructures loans generally because of the borrower's financial difficulties by granting concessions to reduce the interest rate or to defer payments. Loans that have been modified in troubled debt restructurings are generally reported as nonaccrual loans until at least six consecutive payments are received and the loan meets the Bank's other criteria for returning to accrual status. The following table presents the recorded investment in loans modified in troubled debt restructurings:

	At September 30, 2019			At De	At December 31, 2018				
(\$ in thousands)	Restructured - Nonaccrual	Restructured - Accruing	Total	Restructured - Nonaccrual	Restructured - Accruing	Total			
Single Family (1-4 units):									
Non-impaired	\$	\$ 445	\$ 445	\$ —	\$ 459	\$ 459			
Impaired	25,768	6,775	32,543	5,694	4,019	9,713			
	25,768	7,220	32,988	5,694	4,478	10,172			
Home Equity Lines of Credit:									
Non-impaired		17	17	79	_	79			
Impaired	6,721	1,853	8,574	4,559	2,057	6,616			
	6,721	1,870	8,591	4,638	2,057	6,695			
Commercial Real Estate:									
Non-impaired		213	213	_	215	215			
Impaired	_	4,500	4,500	_	4,500	4,500			
		4,713	4,713		4,715	4,715			
Multifamily/ Commercial Construction: Impaired	70,044	_	70,044	_	_	_			
Business:									
Non-impaired		139	139	_	165	165			
Impaired	1,275	1,022	2,297	2,957		2,957			
	1,275	1,161	2,436	2,957	165	3,122			
Unsecured:									
Non-impaired			_		99	99			
Total	\$ 103,808	\$ 14,964	\$118,772	\$ 13,289	\$ 11,514	\$24,803			

During the quarters and nine months ended September 30, 2019 and 2018, troubled debt restructurings were primarily modified through payment deferrals, extensions of the maturity date or reductions in interest rate, both temporary and permanent. The following table presents the recorded investment in loans modified in troubled debt restructurings during the periods indicated:

	Quarter Septen		Nine Mon Septen	
(\$ in thousands)	 2019	2018	 2019	2018
Single Family (1-4 units):				
Non-impaired	\$ 	\$ _	\$ 1,279	\$ 2,636
Impaired	23,670	3,431	23,670	3,431
	23,670	 3,431	24,949	6,067
Home Equity Lines of Credit:				
Non-impaired	_	_	180	2,168
Impaired	2,983	—	2,983	3,331
	2,983	_	3,163	5,499
Multifamily/Commercial Construction				
Impaired	70,940	—	70,940	—
Business:				
Impaired	—	1,818	—	1,818
Total	\$ 97,593	\$ 5,249	\$ 99,052	\$ 13,384

The majority of the Bank's restructured loans are considered impaired and are evaluated individually for impairment under ASC 310-10-35. The resulting impairment, if any, would have an impact on the allowance for loan losses as a specific reserve and be measured under the same criteria as all other impaired loans. For those restructured loans that are purchased credit-impaired, any required allowance is evaluated based upon ASC 310-30. Certain restructured accruing loans may be deemed non-impaired and would therefore be evaluated for estimated losses under ASC 450. No loans defaulted during the quarters and nine months ended September 30, 2019 and 2018 that were modified in the previous twelve months.

Note 4. Mortgage Banking Activities

Mortgage servicing rights ("MSRs") are reported at the lower of amortized cost or fair value. The recorded value of MSRs is amortized in proportion to, and over the period of, estimated net servicing income. The Bank values MSRs by stratifying loans by the year they are sold, by product type (fixed, hybrid or adjustable) and interest rate coupon range. Hybrid loans are further stratified by their initial fixed-rate period.

The following table presents information on the level of loans originated, loans sold and gain on sale of loans:

		Quarte Septer			Nine Mon Septer	
(\$ in thousands)	_	2019	 2018		2019	 2018
Total loans originated	\$	11,132,301	\$ 7,028,983	\$ 2	27,285,273	\$ 23,709,256
Single family loans originated	\$	4,872,598	\$ 2,623,429	\$	11,129,819	\$ 8,075,457
Loans sold:						
Flow sales:						
Agency	\$	25,214	\$ 15,365	\$	51,426	\$ 37,136
Non-agency		11,932	76,772		43,266	165,292
Total flow sales	_	37,146	 92,137		94,692	202,428
Bulk sales:						
Non-agency		_	_		152,119	773,041
Total loans sold	\$	37,146	\$ 92,137	\$	246,811	\$ 975,469
Gain on sale of loans:						
Amount	\$	122	\$ 303	\$	466	\$ 5,037
Gain as a percentage of loans sold		0.33%	0.33%		0.19%	0.52%

The following table presents changes in the portfolio of loans serviced for others and changes in the carrying value of the Bank's MSRs and valuation statistics:

	At or 1 Quarte Septen	r E	nded	At or : Nine Mon Septen	ths	Ended
(\$ in thousands)	2019		2018	 2019		2018
Loans serviced for others:						
Beginning balance	\$ 10,746,351	\$	12,374,275	\$ 11,573,326	\$	12,495,321
Loans sold	37,146		92,137	246,811		975,469
Repayments	(694,125)		(473,853)	(1,730,765)		(1,458,891)
Loans purchased	 (9,762)		(259,066)	 (9,762)		(278,406)
Ending balance	\$ 10,079,610	\$	11,733,493	\$ 10,079,610	\$	11,733,493
MSRs:						
Beginning balance	\$ 49,554	\$	62,096	\$ 54,470	\$	66,139
Additions due to new loans sold	341		950	2,153		5,497
Amortization expense	(3,540)		(4,360)	(10,268)		(12,939)
Provision for valuation allowance	(630)			(630)		—
Reductions due to purchases	 (43)		(999)	 (43)		(1,010)
Ending balance	\$ 45,682	\$	57,687	\$ 45,682	\$	57,687
Estimated fair value of MSRs	\$ 69,633	\$	87,015	\$ 69,633	\$	87,015
MSRs as a percent of loans serviced	0.45%		0.49%	0.45%		0.49%
Weighted average servicing fee collected for the period (annualized)	0.25%		0.25%	0.25%		0.25%
MSRs as a multiple of weighted average servicing fee	1.83x		1.98x	1.84x		1.97x

The following table presents changes in the valuation allowance for MSRs:

Quarte	r En	ded		Nine Mon	ths	Ended
 2019		2018		2019		2018
\$ _	\$	_	\$	_	\$	_
 630	_			630		
\$ 630	\$		\$	630	\$	
	Quarte Septen 2019 \$ 630	Quarter En September 2019 \$ \$ 630	\$ <u>-</u> \$ <u>-</u> 630 <u>-</u>	Quarter Ended September 30, 2019 2018 \$ - \$ \$ - \$ 630 - \$	Quarter Ended September 30, Nine Mon Septem 2019 2018 2019 \$ - \$ - 630 - 630	Quarter Ended September 30,Nine Months September201920182019\$-\$-\$-\$-630-630

The following table presents loan servicing fees:

	Quarter Septen		Nine Mon Septen	
(\$ in thousands)	2019	2018	2019	2018
Contractually specified servicing fees	\$ 6,517	\$ 7,511	\$ 20,458	\$ 22,795
Late charges and ancillary fees, net of costs	\$ (454)	\$ (225)	\$ (1,067)	\$ (455)

The following table presents the Bank's key assumptions used in measuring the fair value of MSRs and the pre-tax sensitivity of the fair values to an immediate 10% and 20% adverse change in these assumptions:

(\$ in thousands)	Sep	tember 30, 2019	De	cember 31, 2018
Fair value of MSRs	\$	69,633	\$	95,205
Weighted average prepayment speed (CPR)		17.2%		13.2%
Impact on fair value of 10% adverse change	\$	(3,565)	\$	(3,589)
Impact on fair value of 20% adverse change	\$	(6,761)	\$	(6,927)
Weighted average discount rate		12.7%		13.1%
Impact on fair value of 10% adverse change	\$	(2,533)	\$	(3,996)
Impact on fair value of 20% adverse change	\$	(4,890)	\$	(7,680)

The sensitivity analysis above is hypothetical and should be used with caution. In particular, the effect of a variation in a particular assumption on the fair value of MSRs is calculated independent of changes in any other assumption; in practice, changes in one factor may result in changes in another factor, which may magnify or counteract the sensitivities. Further changes in fair value based on a single variation in assumptions generally cannot be extrapolated because the relationship of the change in a single assumption to the change in fair value may not be linear.

Refer to Note 7, "Goodwill and Intangible Assets," for disclosures of the gross carrying value, accumulated amortization and estimated future amortization expense of MSRs.

Note 5. Variable Interest Entities

The Bank's involvement with variable interest entities ("VIEs") includes its interests from tax credit investments, other investments and securitizations.

The Bank has variable interests in low-income housing tax credit funds that are designed to generate a return primarily through the realization of federal tax credits. These investments are typically limited partnerships in which the general partner, other than the Bank, holds the power over significant activities of the VIE. Since the Bank is not the primary beneficiary of these investments, it does not consolidate these interests.

In addition, the Bank has variable interests in other investments, which are accounted for under the equity method. Since the Bank is not the primary beneficiary of these investments, it does not consolidate these investments.

The Bank has a variable interest related to its reimbursement obligation to the Federal Home Loan Mortgage Corporation ("Freddie Mac") for certain losses from the securitization of multifamily loans. Since the Bank is not the primary beneficiary of the VIE, it does not consolidate this interest.

The following tables summarize the assets and liabilities recorded on the Bank's balance sheet associated with transactions with VIEs:

			V	IEs	
(\$ in thousands)	Not	consolidated	Conso	lidated	Total
<u>September 30, 2019</u>					
Assets:					
Tax credit investments	\$	1,039,061	\$	_	\$ 1,039,061
Other investments		61,371		_	 61,371
Total Assets		1,100,432		—	1,100,432
Liabilities:					
Reimbursement obligation		312			312
Unfunded commitments-tax credit investments		346,175			346,175
Unfunded commitments—other investments		23,202			 23,202
Total Liabilities		369,689			369,689
Net Assets.	\$	730,743	\$		\$ 730,743
			V	IEs	
(\$ in thousands)	Not	consolidated	Conso	lidated	Total
December 31, 2018					
Assets:					
Tax credit investments	\$	1,057,541	\$		\$ 1,057,541
Other investments		31,917			 31,917
Total Assets		1,089,458			 1,089,458
Liabilities:					
Reimbursement obligation		488			488
Unfunded commitments-tax credit investments		352,438			352,438
Unfunded commitments—other investments		5,256		_	5,256
Total Liabilities		358,182		_	358,182
Net Assets.	\$	731.276	\$		\$ 731.276

The Bank's exposure to loss with respect to VIEs that are not consolidated includes the Bank's investment in these assets of \$1.1 billion at both September 30, 2019 and December 31, 2018. The Bank's exposure to loss related to the reimbursement obligation is 12% of the loans securitized, or \$30.2 million at both September 30, 2019 and December 31, 2018.

Note 6. Leases

The Bank adopted ASC 842 effective January 1, 2019 and recognized lease assets and lease liabilities of \$578.5 million and \$619.2 million, respectively, on its consolidated balance sheet. Refer to Note 1, "Summary of Significant Accounting Policies," for additional information.

The Bank primarily leases corporate, preferred banking and wealth management offices, as well as equipment. The resulting lease assets and lease liabilities recognized on the Bank's consolidated balance sheet are operating leases.

The Bank determines if an arrangement contains a lease at inception, and recognizes lease liabilities upon commencement based on the present value of lease payments over the lease term. Corresponding lease assets are recognized at the liability amount adjusted for any direct incremental costs, prepaid lease payments and lease incentives received. The Bank's lease terms range from 1 year to 19 years. The majority of these leases include one or more options to extend the lease term, primarily up to 5 years at a time. The Bank includes renewal options it is reasonably certain to exercise in the lease term. As the leases do not provide an implicit discount rate, the Bank uses its incremental borrowing rate at the commencement date in determining the present value of lease payments. Operating lease expense for lease payments is recognized on a straight-line basis over the lease term. Some of the Bank's lease arrangements include rental payments that adjust periodically for inflation. These and other variable lease payments are expensed as incurred.

Additionally, the Bank combines non-lease components with lease components in the measurement of its lease assets and liabilities.

The following tables present information related to leases:

(\$ in thousands)	Sej	ptember 30, 2019
Supplemental balance sheet information:		
Lease assets ⁽¹⁾	\$	760,340
Lease liabilities ⁽²⁾	\$	778,257
Weighted average remaining lease term.		10.4 years 3.2%

⁽¹⁾ Included in prepaid expenses and other assets on the consolidated balance sheets.

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

(\$ in thousands)		er Ended 9er 30, 2019	Nine Months Ended September 30, 2019		
Components of lease cost:					
Operating lease cost ⁽¹⁾	\$	30,049	\$	84,055	
Variable lease cost ⁽¹⁾		97		475	
Total lease cost	\$	30,146	\$	84,530	

⁽¹⁾ Included in occupancy expense on the consolidated statements of income and comprehensive income.

(\$ in thousands)	 Months Ended mber 30, 2019
Supplemental cash flow information:	
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash outflows from operating leases.	\$ 74,343
Non-cash activity related to lease assets:	
Lease assets obtained from new operating lease liabilities	\$ 216,654

The following table presents the future maturities of lease liabilities:

(\$ in thousands)	Sep	otember 30, 2019 ⁽¹⁾
Lease liabilities maturing in:		
October 1 - December 31, 2019	\$	27,911
2020		116,203
2021		105,313
2022		98,343
2023		93,049
2024 and thereafter		547,389
Total		988,208
Less: imputed interest.		(164,923)
Less: tenant improvement receivable		(45,028)
Total lease liabilities	\$	778,257

⁽¹⁾ Excludes \$685.3 million of undiscounted minimum lease payments for leases signed but not yet commenced. These leases will commence at various dates from 2019 through 2025 with lease terms ranging from 4 to 16 years.

Prior to the adoption of ASC 842, the Bank's operating leases were not recognized on the balance sheet. The following table presents the undiscounted future minimum lease payments under the Bank's operating leases as of December 31, 2018:

(\$ in thousands)		
Operating leases:		
2019.	\$	99,576
2020		102,498
2021		91,680
2022		89,326
2023		83,629
2024 and thereafter		537,810
Total	\$	1,004,519

Note 7. Goodwill and Intangible Assets

The following table presents the Bank's intangible assets (excluding MSRs) and goodwill:

		S	epter	nber 30, 201	9		December 31, 2018						
(\$ in thousands)	0	Gross Carrying Value		cumulated ortization	0	Carrying Value	(Gross Carrying Value		cumulated nortization	C	Carrying Value	
Intangible assets:									_				
Customer relationship intangibles.	\$	133,100	\$	(110,332)	\$	22,768	\$	133,100	\$	(102,535)	\$	30,565	
Core deposit intangibles		87,550		(87,007)		543		87,550		(85,488)		2,062	
Trade name		42,900		_		42,900		42,900		_		42,900	
Intangible assets	\$	263,550	\$	(197,339)		66,211	\$	263,550	\$	(188,023)		75,527	
	_						_						
Goodwill						198,447						198,447	
Total					\$	264,658					\$	273,974	

Amortization of intangible assets (excluding MSRs) was \$2.8 million and \$9.3 million for the quarter and nine months ended September 30, 2019, respectively, and \$3.9 million and \$12.6 million for the quarter and nine months ended September 30, 2018, respectively.

The following table presents the Bank's MSRs:

		September	30, 20	019				December	: 31, 2018				
(\$ in thousands)	Gross Carrying Value	cumulated ortization		luation owance	arrying Value	C	Gross Carrying Value	cumulated ortization		uation wance		arrying Value	
MSRs ⁽¹⁾	\$ 141,726	\$ (95,414)	\$	(630)	\$ 45,682	\$	140,746	\$ (86,276)	\$	_	\$	54,470	

(1) Amortization of MSRs is included in loan servicing fees, net on the consolidated statements of income and comprehensive income.

Refer to Note 4, "Mortgage Banking Activities," for further discussion on MSRs.

The following table presents goodwill by business segment:

(\$ in thousands)	Commerc Banking		Wealth inagement	 Total
Balance as of December 31, 2017, December 31, 2018 and September 30, 2019.	\$ 51,4	35	\$ 147,012	\$ 198,447

The following table presents the estimated future amortization for amortizable intangible assets as of September 30, 2019. The projections of amortization expense are based on existing asset balances as of September 30, 2019. Future amortization expense may vary from these projections.

(\$ in thousands) October 1 - December 31, 2019 2020		stomer tionship angibles	deposit ngibles	MSRs
October 1 - December 31, 2019	\$	2,268	\$ 290	\$ 3,029
2020		7,504	253	10,237
2021		5,527	_	7,780
2022		3,671	_	5,913
2023		2,235	_	4,494
2024		1,259	—	3,415

Note 8. Borrowings

The Bank uses FHLB advances primarily as a funding source for long-term debt, and, in certain cases, for short-term borrowings. Other sources of funding include federal funds purchased, senior notes and subordinated notes. Short-term borrowings have an original maturity of one year or less. Long-term debt has an original maturity in excess of one year. The following table presents the carrying values, interest expense and components of short-term borrowings and long-term debt:

					Interest Expense										
	Carrying Values					Quarte Septen		Nine Months Ended September 30,							
(\$ in thousands)		September 30, 2019		December 31, 2018		2019		2018		2019		2018			
Short-term borrowings:															
Federal funds purchased	\$	475,000	\$		\$	4,900	\$	1	\$	9,066	\$	2			
FHLB advances		300,000		100,000		7,620		2,247		27,766		11,407			
Total		775,000		100,000		12,520		2,248		36,832		11,409			
Long-term debt:															
FHLB advances		10,900,000		8,700,000		54,901		46,872		147,669		118,716			
Senior notes ⁽¹⁾		497,494		896,432		3,350		5,928		14,818		17,777			
Subordinated notes ⁽¹⁾		777,781		777,475		9,103		9,098		27,305		27,292			
Total		12,175,275		10,373,907		67,354		61,898		189,792		163,785			
Total borrowings.	\$	12,950,275	\$	10,473,907	\$	79,874	\$	64,146	\$	226,624	\$	175,194			

⁽¹⁾ Carrying value represents the principal balance, net of unamortized issuance discounts and deferred issuance costs. Interest expense includes amortization of issuance discounts and deferred issuance costs, which are amortized over the contractual life using a level yield methodology.

FHLB Advances

FHLB advances may be either adjustable-rate in nature or fixed for a specific term. At September 30, 2019, the Bank had \$300.0 million in short-term FHLB advances. At September 30, 2019, all of the long-term FHLB advances were fixed-rate for a specific term. At September 30, 2019, the contractual maturities and weighted average contractual rates of long-term FHLB advances were as follows:

(\$ in thousands)		September	30, 2019
FHLB advances maturing in:	_	Amount	Rate
October 1 - December 31, 2019	\$	1,050,000	1.89%
2020		3,950,000	2.25%
2021		5,900,000	2.18%
Total	\$	10,900,000	2.18%

In connection with outstanding FHLB advances, the Bank owned FHLB stock of \$329.1 million and \$273.2 million at September 30, 2019 and December 31, 2018, respectively. At September 30, 2019 and December 31, 2018, the Bank was required to own FHLB stock at least equal to 2.7% of outstanding FHLB advances.

Senior Notes and Subordinated Notes

The following table presents the carrying values, coupon rates and maturity dates of the Bank's unsecured, term, fixed-rate senior notes and subordinated notes as of September 30, 2019. The 2.375% fixed-rate senior notes issued in June 2014 of \$400.0 million matured in the second quarter of 2019, and, therefore, were no longer outstanding as of September 30, 2019.

	September 30, 2019									
(\$ in thousands)	Carr	ying Value ⁽¹⁾	Rate	Maturity Date						
Senior notes:										
Fixed rate, issued June 2017	\$	497,494	2.500%	June 2022						
Subordinated notes:										
Fixed rate, issued August 2016.	\$	387,981	4.375%	August 2046						
Fixed rate, issued February 2017	\$	389,800	4.625%	February 2047						

⁽¹⁾ Principal balance, net of unamortized issuance discounts and deferred issuance costs.

Note 9. Derivative Financial Instruments

In accordance with ASC 815, "Derivatives and Hedging," the Bank recognizes all derivatives on the balance sheet at fair value. The Bank has elected to present its derivative assets and derivative liabilities on a gross basis on its balance sheet. The Bank accounts for changes in the fair value of a derivative depending on the intended use of the derivative and its resulting designation under specified criteria. The Bank currently does not have any derivatives designated as hedging instruments.

The Bank has derivative assets and liabilities consisting of foreign exchange contracts executed with clients. In these transactions, the Bank offsets the client exposure with another financial institution counterparty, such as a major investment bank or a large commercial bank. The Bank does not retain significant foreign exchange risk. The Bank does retain credit risk, both to the client and the financial institution counterparty, which is evaluated and managed by the Bank in the normal course of its operations. In addition, the Bank has foreign exchange contracts associated with client deposits denominated in various foreign currencies. Management does not currently anticipate non-performance by any of the counterparties. The amounts presented in the table below include the foreign exchange contracts with both the client and the financial institution counterparties.

The Bank also creates derivative instruments when it enters into interest rate lock commitments for single family mortgage loans that will be sold to investors. The Bank's interest rate risk exposure to these commitments is not significant as these derivatives are economically hedged with forward commitments to sell the loans to investors.

The following table presents the total notional or contractual amounts and fair values of derivatives:

	Se	ptember 30, 2	2019	December 31, 2018							
		Fair	Value		Fair Value						
(\$ in thousands)	Notional or Contractual Amount			Notional or Contractual Amount	Derivative Assets ⁽¹⁾	Derivative Liabilities ⁽²⁾					
Foreign exchange contracts	\$4,496,101	\$ 25,816	\$ 38,792	\$4,696,285	\$ 41,646	\$ 27,466					
Interest rate contracts with borrowers	\$ 25,392	1	108	\$ 8,207	9	_					
Forward loan sale commitments	\$ 57,090	108	1	\$ 106,922		9_					
Total		\$ 25,925	\$ 38,901		\$ 41,655	\$ 27,475					

⁽¹⁾ Included in prepaid expenses and other assets on the consolidated balance sheets.

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

The credit risk associated with these derivative instruments is the risk of non-performance by the counterparties to the contracts. The Bank's counterparty credit exposure is equal to the amount reported as a derivative asset on the Bank's balance sheet. To mitigate this risk, the Bank enters into master netting and bilateral collateral agreements with certain counterparties. These agreements allow the Bank to settle its derivative contracts with such counterparties on a net basis and to offset the net derivative exposure against the related collateral in the event of default.

The following table presents additional information related to the Bank's foreign exchange derivative contracts:

		Total	Contracts Not Subject to Master Netting Arrangements			Contracts Subject to Master Netting Arrangements												
		C		Creation		C	Gross Net Amounts Amounts Offset Presented		Gross Amounts Not Offset on the Balance Sheet									
(\$ in thousands)	Α	Gross mounts cognized		Gross Gross Amounts Amounts ecognized Recognize		mounts	on the Balance Sheet		on the Balance Sheet		Derivative Amount		Cash Collateral ⁽¹⁾		Net Amount			
September 30, 2019											_							
Derivative assets:																		
Foreign exchange contracts	\$	25,816	\$	14,726	\$	11,090	\$	_	\$	11,090	\$	11,090	\$	_	\$	_		
Derivative liabilities:																		
Foreign exchange contracts	\$	38,792	\$	8,989	\$	29,803	\$	_	\$	29,803	\$	11,090	\$	14,720	\$	3,993		
December 31, 2018																		
Derivative assets:																		
Foreign exchange contracts	\$	41,646	\$	12,641	\$	29,005	\$	_	\$	29,005	\$	13,395	\$	15,610	\$	_		
Derivative liabilities:																		
Foreign exchange contracts	\$	27,466	\$	14,071	\$	13,395	\$	_	\$	13,395	\$	13,395	\$	_	\$	_		

⁽¹⁾ Collateral presented in the table above is limited to the amount required to settle the net derivative position and does not include any excess collateral.

Note 10. Fair Value Measurements

The Bank uses fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures. Under ASC 820, "Fair Value Measurement," fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Debt securities available-for-sale and derivative instruments are recorded at fair value on a recurring basis. Additionally, from time to time, the Bank may be required to record other assets at fair value on a nonrecurring basis, which typically involve write-downs of individual assets or application of the lower-of-cost-or-market accounting. Nonrecurring fair value adjustments of loans represent a write-down based on the fair value of the underlying collateral of the loan, adjusted for certain factors such as estimated costs to sell and current market conditions. Nonrecurring fair value adjustments of loans held for sale, MSRs and other real estate owned result from the application of lower-of-cost-or-market accounting.

Although management uses its best judgment in estimating fair value, there are inherent weaknesses in any estimates that are made at a discrete point in time based on relevant market data, information about the financial instruments and other factors. Estimates of fair value of instruments without quoted market prices are subjective in nature and involve various assumptions that are matters of judgment. Changes in the assumptions used could significantly affect these estimates.

The estimated fair values presented neither include nor give effect to the values associated with the Bank's existing client relationships, lending and deposit office networks, or certain tax implications related to the realization of unrealized gains or losses.

Fair Value Hierarchy

Under ASC 820, the Bank groups its assets and liabilities at fair value in three levels, based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value. These levels are:

- Level 1—Valuation is based on quoted prices for identical instruments traded in active markets.
- Level 2—Valuation is based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-based valuation techniques for which all significant assumptions are observable in the market.
- Level 3—Valuation is generated from model-based techniques that use significant assumptions not observable in the market. These unobservable assumptions reflect estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models and similar techniques.

It is the Bank's policy to maximize the use of observable inputs and minimize the use of unobservable inputs when developing fair value measurements, in accordance with the fair value hierarchy of ASC 820.

Recurring Fair Value Measurements

The following is a description of valuation methodologies used for assets and liabilities recorded at fair value on a recurring basis.

Available-for-sale debt securities: The Bank's U.S. Treasury securities are valued using quoted market prices from the active exchange on which the securities are traded. For most other debt securities, the Bank uses quoted prices obtained through third-party valuation sources. Management reviews the valuation techniques and assumptions used by the providers to ensure that such valuation techniques are based on observable market inputs appropriate for the type of security being measured. In some instances, prices are obtained from dealer quotes. The fair value of tax-exempt nonprofit debentures and certain municipal securities is determined using estimated future cash flows or other model-based valuation methods using inputs similar to market pricing, adjusted for liquidity risk.

Equity securities measured at fair value: The Bank's mutual funds and marketable equity securities are valued using quoted market prices from the active exchange on which the securities are traded. Mutual funds are valued using the net asset value ("NAV") per share using quoted market prices.

Derivatives: Derivative assets and liabilities consist of foreign exchange contracts, interest rate lock commitments and forward loan sale commitments. The Bank uses current market prices to determine the fair value of foreign exchange contracts. The fair values of interest rate lock commitments and forward loan sale commitments are estimated using analysis based on current market prices.

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

(\$ in thousands)		Level 1		Level 2		Level 3	Total		
September 30, 2019									
Assets:									
Debt securities available-for-sale:									
Agency residential MBS	\$	—	\$	420,945	\$		\$	420,945	
Other residential MBS		_		4,429		_		4,429	
Agency commercial MBS		—		928,282		_		928,282	
Securities of U.S. states and political						47,449		47,449	
subdivisions—taxable						1,11)		-1,-+)	
Equity securities (fair value): Mutual funds and marketable equity securities		19,736						19,736	
Derivative assets		19,750		25,925				25,925	
Total	\$	19,736	\$	1,379,581	\$	47.449	\$	1,446,766	
10ml	Ψ	17,750	Ψ	1,379,301	Ψ	17,119	Ψ	1,110,700	
Liabilities:									
Derivative liabilities	\$	—	\$	38,901	\$	—	\$	38,901	
December 31, 2018									
Assets:									
Debt securities available-for-sale:									
Agency residential MBS	\$	_	\$	26,095	\$	_	\$	26,095	
Other residential MBS		_		4,552		_		4,552	
Agency commercial MBS		_		1,701,021				1,701,021	
Securities of U.S. states and political subdivisions—taxable		_		_		47,448		47,448	
Equity securities (fair value):									
Mutual funds and marketable equity securities		18,719						18,719	
Derivative assets		_		41,655				41,655	
Total	\$	18,719	\$	1,773,323	\$	47,448	\$	1,839,490	
Liabilities:									
Derivative liabilities	\$	—	\$	27,475	\$	—	\$	27,475	

There were no transfers in or out of Levels 1, 2 or 3 assets measured at fair value on a recurring basis in the quarters and nine months ended September 30, 2019 and 2018.

The following table presents changes in Level 3 assets measured at fair value on a recurring basis:

			Nine Months Ended September 30,					
 2019		2018		2019		2018		
\$ 47,448	\$	47,448	\$	47,448	\$	47,449		
(1)		(2)		(3)		(11)		
 2		2		4		10		
\$ 47,449	\$	47,448	\$	47,449	\$	47,448		
\$	Septen 2019 \$ 47,448 (1) 2	September 2019 \$ 47,448 \$ (1) 2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	September 30, 2019 2018 \$ 47,448 \$ 47,448 \$ (1) (2) 2 2	September 30, Septem 2019 2018 2019 \$ 47,448 \$ 47,448 \$ 47,448 (1) (2) (3) (2) (3) 2 2 4	September 30, September 2019 2018 2019 \$ 47,448 \$ 47,448 \$ 47,448 \$ (1) (2) (3) 2 2 4 (1) (2) (3)		
The table and discussion below provide information about the significant unobservable inputs in our recurring Level 3 fair value measurements:

(\$ in thousands)		ir Value	Valuation Technique	Unobservable Input
September 30, 2019 Available-for-sale debt securities of U.S. states and political subdivisions— taxable	\$	47,449	Discounted cash flow	Weighted average liquidity risk yield premium of 50 bps
December 31, 2018 Available-for-sale debt securities of U.S. states and political subdivisions— taxable	\$	47,448	Discounted cash flow	Weighted average liquidity risk yield premium of 50 bps

For taxable municipal securities, the Bank calculates the fair value using estimated future cash flows on a quarterly basis. In addition to the inputs listed above, the Bank's management considers interest rate reset frequency, spread to index, market yield curves and the underlying bond rating at the time of valuation. The liquidity risk yield premium is applied to account for liquidity considerations since the bond is not publicly traded. An unfavorable change in the general business and credit environments could cause an increase in the liquidity risk yield premium, resulting in a decrease in the fair value of the investment.

Nonrecurring Fair Value Measurements

The following is a description of valuation methodologies used in estimating the fair value of assets measured at fair value on a nonrecurring basis.

Loans: The fair value of loans with nonrecurring fair value adjustments is based on the fair value of the underlying collateral, primarily real estate, adjusted for certain factors such as estimated costs to sell.

Loans held for sale: The fair value of loans held for sale is derived from actual prices at which loans were committed for sale adjusted for loan servicing value.

MSRs: The fair value of MSRs is based on a present value calculation of expected future cash flows, with assumptions regarding prepayments, discount rates, cost to service, escrow account earnings, contractual servicing fees and ancillary income.

Other real estate owned: Other real estate owned includes foreclosed properties securing mortgage loans. Fair value is generally based upon independent market prices or appraised values of the collateral, adjusted for estimated costs to sell.

The following table presents the assets measured at fair value on a nonrecurring basis that were held on the balance sheet at September 30, 2019 and December 31, 2018:

(\$ in thousands)	Level 1		Level 2			Level 3	Total		
September 30, 2019									
Assets: Loans MSRs Total	\$		\$ \$		\$ \$	2,628 7,009 9,637	\$	2,628 7,009 9,637	
December 31, 2018 Assets: Loans	\$	_	\$	_	\$	5,417	\$	5,417	

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

	Quarter Septem		Nine Months Ended September 30,					
(\$ in thousands)	2019		2018		2019	2018		
Loans	\$ (961)	\$		\$	(992)	\$	(349)	
MSRs	 (630)				(630)			
Total	\$ (1,591)	\$		\$	(1,622)	\$	(349)	

Fair Value of Financial Instruments

The following tables present the carrying values, estimated fair values and the levels in the fair value hierarchy of financial instruments, excluding those measured at fair value on a recurring basis:

	September 30, 2019										
	Carrying		Fair	Value							
(\$ in thousands)	Amount	Total	Level 1	Level 2	Level 3						
Assets:											
Cash and cash equivalents	\$ 2,181,600	\$ 2,181,600	\$ 2,181,600	\$	\$						
Debt securities held-to-maturity:											
U.S. Government-sponsored agency securities	558,459	558,003	—	558,003							
Agency residential MBS	2,052,012	2,054,369		2,054,369							
Agency commercial MBS	3,377,375	3,437,103		3,437,103							
Securities of U.S. states and political subdivisions:											
Tax-exempt municipal securities	9,637,134	10,253,120		10,160,083	93,037						
Tax-exempt nonprofit debentures	139,830	145,770			145,770						
Taxable municipal securities	213,832	230,039		230,039							
Corporate debt securities	24,080	24,484	—	24,484							
Loans, net:											
Real estate secured mortgages	68,561,691	66,876,731	_	43,917,041	22,959,690						
Other loans	17,257,654	16,169,946	_		16,169,946						
Loans held for sale	31,693	32,009	_	32,009	_						
Investments in life insurance	1,425,057	1,425,057	_		1,425,057						
MSRs	45,682	69,633			69,633						
FHLB stock	329,130	329,130	—	—	329,130						
Liabilities:											
Deposits:											
Certificates of deposit	\$14,042,346	\$14,093,479	\$	\$	\$14,093,479						
Borrowings:											
Federal funds purchased	475,000	475,000		475,000							
Short-term FHLB advances	300,000	300,000		300,000	_						
Long-term FHLB advances	10,900,000	10,950,297		10,950,297							
Senior notes	497,494	502,955		502,955							
Subordinated notes	777,781	902,560	—	902,560	—						

		De	ecember 31, 20	18	
	Carrying		Fair '	Value	
(\$ in thousands)	Amount	Total	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents Debt securities held-to-maturity:	\$ 2,811,159	\$ 2,811,159	\$ 2,811,159	\$ —	\$ —
U.S. Government-sponsored agency securities	1,044,912	1,011,324	—	1,011,324	
Agency residential MBS	1,868,587	1,799,100	—	1,799,100	
Agency commercial MBS Securities of U.S. states and political subdivisions:	3,375,409	3,240,852	_	3,240,852	_
Tax-exempt municipal securities	7,952,605	8,035,143		7,935,574	99,569
Tax-exempt nonprofit debentures	142,508	139,826	—	—	139,826
Taxable municipal securities	52,952	61,279	—	61,279	—
Loans, net:					
Real estate secured mortgages	59,524,660	57,183,416		36,659,706	20,523,710
Other loans	15,901,574	14,677,426	—	—	14,677,426
Loans held for sale.	98,985	99,226		99,226	
Investments in life insurance	1,376,579	1,376,579	—	—	1,376,579
MSRs	54,470	95,205	—	—	95,205
FHLB stock	273,240	273,240	_	—	273,240
Liabilities:					
Deposits:					
Certificates of deposit	\$ 11,377,515	\$ 11,442,054	\$	\$ —	\$11,442,054
Borrowings:					
Short-term FHLB advances	100,000	100,000		100,000	
Long-term FHLB advances	8,700,000	8,735,714	_	8,735,714	_
Senior notes	896,432	881,618	_	881,618	_
Subordinated notes	777,475	744,293	—	744,293	—

Note 11. Preferred Stock

At September 30, 2019, the Bank was authorized to issue 25,000,000 shares of preferred stock, par value \$0.01 per share, of which 940,000 shares were issued and outstanding. Each share of preferred stock has a liquidation preference of \$1,000. The following table presents the authorized, issued and outstanding shares for each series of the Bank's preferred stock:

(in thousands, except share amounts)	Sep	tember 30, 2019	December 31, 2018		
5.50% Noncumulative Perpetual Series D—200,000 shares authorized; 190,000 shares issued and outstanding.	\$	190,000	\$	190,000	
5.70% Noncumulative Perpetual Series F—115,000 shares authorized; 100,000 shares issued and outstanding.		100,000		100,000	
5.50% Noncumulative Perpetual Series G—172,500 shares authorized; 150,000 shares issued and outstanding.		150,000		150,000	
5.125% Noncumulative Perpetual Series H—200,000 shares authorized, issued and outstanding.		200,000		200,000	
5.50% Noncumulative Perpetual Series I—300,000 shares authorized, issued and outstanding.		300,000		300,000	
Total	\$	940,000	\$	940,000	

Refer to Note 18, "Subsequent Events," for information regarding the Bank's redemption of all of its outstanding 5.50% Noncumulative Perpetual Series D Preferred Stock on October 18, 2019.

Dividends on each series of the Bank's outstanding shares of preferred stock are paid each March 30, June 30, September 30 and December 30. The following table presents dividends paid on preferred stock:

				r Ended 1ber 30,	Nine Months Ended September 30,									
	20	19		2018				2019				2018		
(in thousands, except per share amounts)	Total Per Share			Per Total Share			Total		Per Share		Total		Per Share	
5.625% Noncumulative Perpetual Series C	\$ —	\$	_	\$ —	\$		\$		\$	_	\$	60	\$	0.40
5.50% Noncumulative Perpetual Series D	2,612	\$	13.75	2,612	\$	13.75		7,837	\$	41.25		7,838	\$	41.25
7.00% Noncumulative Perpetual Series E	_	\$	_	3,500	\$	17.50		_	\$	_		10,500	\$	52.50
5.70% Noncumulative Perpetual Series F	1,425	\$	14.25	1,425	\$	14.25		4,275	\$	42.75		4,275	\$	42.75
5.50% Noncumulative Perpetual Series G	2,063	\$	13.75	2,062	\$	13.75		6,188	\$	41.25		6,187	\$	41.25
5.125% Noncumulative Perpetual Series H	2,562	\$	12.81	2,563	\$	12.81		7,687	\$	38.44		7,687	\$	38.44
5.50% Noncumulative Perpetual Series I	4,125	\$	13.75	4,950	\$	16.50		12,375	\$	41.25		4,950	\$	16.50
Total	\$ 12,787			\$ 17,112			\$	38,362			\$	41,497		

Note 12. Common Stock and Stock Plans

Common Stock

At September 30, 2019, the Bank was authorized to issue 400,000,000 shares of common stock, par value \$0.01 per share. At September 30, 2019, the Bank had 168,450,453 shares issued and outstanding. During the nine months ended September 30, 2019, the Bank issued 2,000,000 shares of common stock in an "at-the-market" offering, which added \$170.6 million to common equity.

First Republic Bank Employee Stock Purchase Plan

Under the Bank's Employee Stock Purchase Plan (the "Purchase Plan"), the Bank is authorized to sell 2,000,000 shares of common stock to its full-time and part-time employees who are regularly employed for 20 hours or more per week. For 2019, employees may purchase shares of the Bank's common stock at 85% of the closing price of the common stock on the New York Stock Exchange on the date of purchase or the nearest prior trading day, subject to an annual limitation of common stock valued at \$25,000. For the nine months ended September 30, 2019, a total of 160,003 shares were sold to employees, and the compensation expense for the Purchase Plan was approximately \$2.3 million.

First Republic Bank 2017 Omnibus Award Plan

In May 2017, the Bank adopted the 2017 Omnibus Award Plan, which replaced the 2010 Omnibus Award Plan. Stock awards outstanding that were previously granted under the 2010 Omnibus Award Plan were not affected by the replacement and the terms of the 2010 Omnibus Award Plan will remain effective for such awards.

The Bank is authorized to grant shares of common stock in the form of stock options, stock appreciation rights, shares of restricted stock, restricted stock units or performance share units to its employees, officers and directors. Upon termination of service, unvested awards are generally forfeited. At September 30, 2019, the Bank had 2,294,223 shares reserved for future stock award grants.

Stock Options

At September 30, 2019, the Bank had stock options outstanding of 460,032. Generally, stock options vest over a period of up to four years from the grant date and have a maximum contractual life of ten years. Under the Bank's stock option agreements, the exercise price of each option equals the market price of the Bank's common stock at the grant date. Stock option exercises are satisfied by issuing shares from the Bank's authorized shares. The number of shares of common stock issued from stock option exercises is generally net of shares withheld to pay the exercise price or taxes due upon the exercise. As of September 30, 2019, all options are fully vested.

The following table presents information related to outstanding stock options:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (\$ in thousands)
Options outstanding as of December 31, 2018.	1,764,407	\$15.43		
Granted	_	_		
Canceled or forfeited	—	_		
Exercised	(1,304,375)	\$15.13		
Options outstanding as of September 30, 2019.	460,032	\$16.28	0.9 years	\$36,996

The intrinsic value of all options exercised was \$107.6 million for the nine months ended September 30, 2019.

Restricted Stock Units

The Bank has granted restricted stock units ("RSUs") to certain of its employees, officers and directors. Upon vesting, one share of common stock is issued from the Bank's authorized shares for each RSU. The number of shares of common stock issued at the time of vesting is generally net of shares withheld to pay taxes due upon vesting. Participants are entitled to dividends and voting rights only upon vesting.

RSUs have time-based vesting requirements ("Time RSUs") or both time-based and performance-based vesting requirements ("Performance RSUs"). RSUs vest evenly over periods ranging from one year to five years from the date of grant. Performance RSUs vest over these periods, provided that certain performance criteria, such as return on average tangible common equity, are met, based on performance periods that are specified for each grant. The following table presents information related to Performance RSUs and Time RSUs:

	Р	erformance RS	SUs		Time RSUs						
	Number of Awards	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual Term	Number of Awards	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual Term					
Nonvested awards as of December 31, 2018	2,236,683	\$90.70		320,903	\$76.49						
Granted	202,098	\$101.15		214,212	\$96.90						
Vested.	(701,858)	\$85.05		(201,485)	\$72.49						
Canceled or forfeited	(79,990)	\$92.75		(1,066)	\$77.57						
Nonvested awards as of September 30, 2019	1,656,933	\$94.27	2.5 years	332,564	\$92.05	2.2 years					

The total fair value of Performance RSUs that vested in the nine months ended September 30, 2019 was \$67.9 million. The total fair value of Time RSUs that vested in the nine months ended September 30, 2019 was \$20.5 million. No cash consideration was received in connection with the vesting of these awards.

Performance Share Units

The Bank has granted performance share units ("PSUs") to certain of its employees and officers. Upon vesting, one share of common stock is issued from the Bank's authorized shares for each PSU. The number of shares of common stock issued at the time of vesting is generally net of shares withheld to pay taxes due upon vesting. Participants are entitled to dividends and voting rights only upon vesting. Certain PSUs vest in full after three years, subject to achieving certain performance criteria, while other PSUs vest evenly over periods ranging from three years to five years from the date of grant, provided that certain performance criteria are met. Performance criteria include metrics such as return on equity and return on average tangible common equity, and are based on performance periods that are specified for each grant. The following table presents information related to PSUs:

	Number of Awards	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual Term
Nonvested awards as of December 31, 2018	952,084	\$89.82	
Granted	_	—	
Vested	(270,717)	\$83.27	
Canceled or forfeited			
Nonvested awards as of September 30, 2019	681,367	\$92.43	2.4 years

The total fair value of PSUs that vested in the nine months ended September 30, 2019 was \$26.5 million. No cash consideration was received in connection with the vesting of these awards.

Restricted Stock Awards

The Bank previously granted restricted stock awards ("RSAs") to certain of its employees and officers. Upon grant, one share of common stock is issued from the Bank's authorized shares for each RSA. Upon vesting, common stock shares are transferred to the employee or officer. At the time of vesting, shares are generally withheld to pay the taxes due upon vesting. Participants are entitled to dividends and voting rights for all RSAs, regardless of whether the award has vested.

RSAs have performance-based vesting requirements ("Performance RSAs") and vest on a quarterly basis through the end of 2019, provided that certain performance criteria are achieved for a specified performance period, such as return on average tangible common equity, return on average tangible assets and nonperforming asset ratios. The following table presents information related to Performance RSAs:

	Number of Awards	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual Term
Nonvested awards as of December 31, 2018	17,500	\$31.80	
Granted		—	
Vested	(13,125)	\$31.80	
Canceled or forfeited		_	
Nonvested awards as of September 30, 2019	4,375	\$31.80	0.3 years

The total fair value of Performance RSAs that vested in the nine months ended September 30, 2019 was \$1.3 million. No cash consideration was received in connection with the vesting of these awards.

Compensation Expense

RSUs, PSUs and RSAs are valued at the closing market price of the Bank's common stock at the grant date, and compensation expense is recognized over the requisite service period, which is generally the vesting period. The Bank accounts for forfeitures of stock awards in the period they occur. All compensation costs related to stock options have been fully recognized.

The following tables present information regarding share-based compensation expense:

		Quarte Septen				Nine Months Ended September 30,							
	201	9		2018				201	9	2018			
(\$ in thousands)	xpense cognized	Related Tax Benefit		Expense Recognized		Related Tax Benefit		xpense cognized	Related Tax Benefit	Expense Recognized		Related Tax Benefit	
RSUs	\$ 18,657	\$ 5,377	\$	18,890	\$	5,630	\$	55,997	\$ 16,185	\$	49,535	\$ 14,762	
PSUs	5,925	1,223		6,232		1,857		18,086	3,778		15,712	4,682	
RSAs	 139	41		139		41		417	124		417	124	
Total	\$ 24,721	\$ 6,641	\$	25,261	\$	7,528	\$	74,500	\$ 20,087	\$	65,664	\$ 19,568	

	Septembe	r 30, 2019
(\$ in thousands)	Unrecognized Expense	Weighted Average Expected Recognition Period
RSUs	\$ 154,553	2.6 years
PSUs	46,837	2.6 years
RSAs	 138	0.3 years
Total	\$ 201,528	

Excess Tax Benefits

Excess tax benefits from exercise or vesting of share-based awards are included as a reduction in provision for income taxes in the period in which the exercise or vesting occurs. The following table presents excess tax benefits recognized, by award type:

			Quarter Septem	· Ended lber 30,				l		ths Ended iber 30,		
	20)19		20)18		20	19		20	18	
(\$ in thousands)	Number of Awards Exercised or Vested	Ex l	Related cess Tax Benefit eficiency)	Number of Awards Exercised or Vested	E	Related xcess Tax Benefit	Number of Awards Exercised or Vested	Ex	Related ccess Tax Benefit	Number of Awards Exercised or Vested	Ex	Related ccess Tax Benefit
Stock options	432,822	\$	9,579	105,006	\$	2,579	1,304,375	\$	30,016	456,230	\$	10,386
RSUs	44,719		(50)	13,052		91	903,343		4,614	815,255		6,735
PSUs	—		_	_		_	270,717		1,290	219,650		1,958
RSAs	4,375		84	4,375		86	13,125		260	13,125		253
Total	481,916	\$	9,613	122,433	\$	2,756	2,491,560	\$	36,180	1,504,260	\$	19,332

Note 13. Accumulated Other Comprehensive Income (Loss)

The following table presents the changes in the components of accumulated other comprehensive income (loss):

(\$ in thousands)	Av	curities ailable- or-Sale	Tr A Fo	ecurities ansferred from vailable- or-Sale to Held-to- Aaturity		Total	Ã	ecurities vailable- For-Sale	Tra Av Fo H	ecurities ansferred from vailable- r-Sale to Ield-to- Iaturity	Total
				ter Ended ber 30, 20	19					onths Ende ber 30, 201	
Beginning balance	\$	(1,155)	\$	1,176	\$	21	\$	(20,945)	\$	1,562	\$ (19,383)
Net unrealized gain on securities available- for-sale		13,325		_		13,325		39,494		_	39,494
Related tax effect		(3,971)		_		(3,971)		(11,769)			(11,769)
Reclassification of loss on securities available-for-sale to net income ⁽¹⁾		890		_		890		2,912		_	2,912
Related tax effect ⁽²⁾		(265)				(265)		(868)			(868)
Amortization of unrealized gain on securities transferred from available-for-sale to held- to-maturity ⁽³⁾				(242)		(242)		_		(792)	(792)
Related tax effect ⁽²⁾				72		72		—		236	236
Other comprehensive income (loss)		9,979		(170)		9,809		29,769		(556)	29,213
Ending balance	\$	8,824	\$	1,006	\$	9,830	\$	8,824	\$	1,006	\$ 9,830

		rter Ended mber 30, 20	18		onths Ende ber 30, 201		
Beginning balance	\$ (19,694)	\$ 1,993	\$ (17,701)	\$ (6,472)	\$ 2,632	\$	(3,840)
Cumulative adjustments from adoption of new accounting guidance	—	_	—	(1,182)			(1,182)
Beginning balance after cumulative adjustments	 (19,694)	1,993	(17,701)	(7,654)	 2,632		(5,022)
Net unrealized gain on securities transferred from held-to-maturity to available-for-sale	_	_	_	17,528	_		17,528
Related tax effect	—	—	—	(5,223)	—		(5,223)
Net unrealized loss on securities available-for-sale.	(5,761)	_	(5,761)	(14,424)		((14,424)
Related tax effect	1,716	_	1,716	4,298			4,298
Reclassification of loss (gain) on securities available-for-sale to net income ⁽¹⁾	777		777	(25,240)		((25,240)
Related tax effect ⁽²⁾	(232)		(232)	7,521			7,521
Amortization of unrealized gain on securities transferred from available-for-sale to held- to-maturity ⁽³⁾	_	(291)	(291)	_	(1,201)		(1,201)
Related tax effect ⁽²⁾	_	87	87		358		358
Other comprehensive loss	 (3,500)	 (204)	(3,704)	 (15,540)	 (843)	((16,383)
Ending balance	\$ (23,194)	\$ 1,789	\$ (21,405)	\$ (23,194)	\$ 1,789	\$ ((21,405)

⁽¹⁾ Included in gain (loss) on investment securities on the consolidated statements of income and comprehensive income.

⁽²⁾ Included in provision for income taxes on the consolidated statements of income and comprehensive income.

⁽³⁾ Included in interest income on investments on the consolidated statements of income and comprehensive income.

Note 14. Income Taxes

The Bank's effective tax rates for the quarter and nine months ended September 30, 2019 were 18.0% and 17.0%, respectively. The Bank's effective tax rates for the quarter and nine months ended September 30, 2018 were 19.8% and 18.6%, respectively. The following table presents the reconciliation between the effective tax rate and the federal statutory rate:

	Quarter E Septemb		Nine Months Ended September 30,			
Effective Tax Rate	2019	2018	2019	2018		
Statutory rate	21.0 %	21.0 %	21.0 %	21.0 %		
State taxes, net of federal benefits	7.9 %	7.1 %	7.9 %	7.9 %		
Tax-exempt income	(6.3)%	(6.7)%	(6.5)%	(7.2)%		
Investments in life insurance	(0.9)%	(0.9)%	(0.8)%	(0.8)%		
Tax credits	(13.9)%	(13.9)%	(14.6)%	(15.0)%		
Tax credit investment amortization.	12.2 %	12.6 %	12.9 %	13.3 %		
Excess tax benefits—stock options.	(3.3)%	(0.9)%	(3.6)%	(1.3)%		
Excess tax benefits—other stock awards	(0.1)%	(0.1)%	(0.8)%	(1.2)%		
FDIC assessments	0.7 %	1.3 %	0.7 %	1.3 %		
Other, net	0.7 %	0.3 %	0.8 %	0.6 %		
Effective tax rate	18.0 %	19.8 %	17.0 %	18.6 %		

Note 15. Earnings Per Common Share ("EPS")

The following table presents a reconciliation of the income and share amounts used in the basic and diluted earnings per common share computations:

	Quarte Septen		Nine Mon Septen	
(in thousands, except per share amounts)	 2019	2018	2019	2018
Basic EPS:				
Net income	\$ 234,844	\$ 213,546	\$ 683,999	\$ 622,410
Less: Dividends on preferred stock	12,787	17,112	38,362	41,497
Net income available to common shareholders	\$ 222,057	\$ 196,434	\$ 645,637	\$ 580,913
Weighted average common shares outstanding	168,272	 163,048	167,694	 162,322
Net income per common share—basic	\$ 1.32	\$ 1.20	\$ 3.85	\$ 3.58
Diluted EPS:				
Net income available to common shareholders	\$ 222,057	\$ 196,434	\$ 645,637	\$ 580,913
Weighted average shares:	 		 	
Common shares outstanding	168,272	163,048	167,694	162,322
Dilutive effect of stock options	612	1,673	849	1,781
Dilutive effect of restricted stock awards, restricted stock units and performance share units	 462	777	 906	1,006
Weighted average diluted common shares outstanding	 169,346	 165,498	 169,449	 165,109
Net income per common share—diluted	\$ 1.31	\$ 1.19	\$ 3.81	\$ 3.52

Stock options, restricted stock awards, restricted stock units and performance share units that are antidilutive are not included in the calculation of diluted earnings per common share. The following table presents the weighted average shares of outstanding stock awards that were anti-dilutive for the periods indicated:

	Quarter Septem		Nine Mont Septem	
(in thousands)	2019	2018	2019	2018
Restricted stock units and performance share units	767		4	240

Note 16. Revenue from Contracts with Customers

Revenue Recognition

The following table presents revenue from contracts with customers, disaggregated by revenue stream, as well as other noninterest income:

	Quarte Septen			Nine Mon Septen	
(\$ in thousands)	2019	_	2018	2019	2018
Noninterest income:					
Revenue from contracts with customers:					
Investment management fees	\$ 83,582	\$	88,560	\$ 262,226	\$ 249,602
Brokerage and investment fees	12,040		6,407	26,587	21,674
Insurance fees	2,712		1,851	8,522	4,646
Trust fees	4,105		3,599	12,221	10,694
Deposit fees	6,563		6,225	19,462	18,490
Other income	 1,082		592	 3,299	 1,936
Total revenue from contracts with customers	110,084		107,234	 332,317	307,042
Other sources of noninterest income	32,123		27,141	87,558	92,856
Total noninterest income	\$ 142,207	\$	134,375	\$ 419,875	\$ 399,898

The Bank earns revenues from contracts with customers primarily for performing investment management, brokerage, sales of insurance and annuity policies, trust and deposit services. Most of the Bank's contracts with customers are open-ended, and the Bank provides services on an ongoing basis for an unspecified contract term. For these ongoing services, the fees are variable, since they are dependent on factors such as the value of underlying assets under management, assets under administration or volume of transactions. The Bank recognizes revenue over the period services are provided to customers and when the uncertainties that determine the amount of revenue are resolved, and the actual fees are known or can be estimated. For certain services that are provided at a specific point in time, the Bank recognizes revenue in full at the time such services are provided.

Contract Balances and Receivables

The Bank records contract liabilities, or deferred revenue, when payments from customers are received or due in advance of providing services to customers. The Bank generally receives payments for its services during the period or at the time services are provided and, therefore, does not have deferred revenue balances at period-end.

Receivables from contracts with customers were \$21.1 million and \$17.3 million at September 30, 2019 and December 31, 2018, respectively, and consist primarily of investment management and brokerage receivables, which are included in prepaid expenses and other assets on the consolidated balance sheets.

Note 17. Segment Reporting

ASC 280-10, "Segment Reporting," requires that a public business enterprise report certain financial and descriptive information about its reportable operating segments on the basis that is used internally for evaluating segment performance and deciding how to allocate resources to segments. The Bank's two reportable segments are Commercial Banking and Wealth Management.

The Commercial Banking segment represents most of the operations of the Bank, including real estate secured lending, retail deposit gathering, private banking activities, mortgage sales and servicing, and managing capital, liquidity and interest rate risk.

The Wealth Management segment consists of (i) the investment management activities of FRIM, which manages assets for individuals and institutions in equity securities, fixed income securities, balanced portfolios and alternative investments; (ii) First Republic Trust Company, a division of the Bank that offers personal trust and custody services; (iii) FRTC Delaware, a wholly-owned subsidiary of the Bank that provides personal trust and custody services; (iv) the Bank's mutual fund activities through third-party providers; (v) the brokerage activities of FRSC; and (vi) the Bank's foreign exchange activities conducted on behalf of clients. In addition, the Wealth Management segment earns fee income for offering sales of life insurance and annuity products to clients. Further, the Wealth Management segment earns fees for the Bank's investment portfolio and earns a deposit earnings credit for client deposit accounts that are maintained at the Bank, including sweep deposit accounts.

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

The following tables present the operating results, goodwill and total assets of the Bank's two reportable segments, as well as any reconciling items:

(\$ in thousands)	(Commercial Banking	N	Wealth Ianagement	R	econciling Items	C	onsolidated Total
At or for the Quarter Ended September 30, 2019	_							
Net interest income	\$	673,801	\$	21,184	\$	_	\$	694,985
Provision for loan losses		16,711				—		16,711
Noninterest income from contracts with customers (1)		6,949		111,626		(8,491)		110,084
Other noninterest income		20,283		11,840				32,123
Noninterest income		27,232		123,466		(8,491)		142,207
Amortization of intangibles		398		2,434		_		2,832
Other noninterest expense.		435,460		104,149		(8,491)		531,118
Noninterest expense.	_	435,858	_	106,583		(8,491)		533,950
Income before provision for income taxes		248,464		38,067		_		286,531
Provision for income taxes	_	40,510		11,177				51,687
Net income	\$	207,954	\$	26,890	\$		\$	234,844
Goodwill	\$	51,435	\$	147,012	\$		\$	198,447
Total Assets	\$	110,489,310	\$	780,547	\$	(241,122)	\$	111,028,735
At or for the Quarter Ended September 30, 2018								
Net interest income	\$	613,689	\$	20,765	\$	_	\$	634,454
Provision for loan losses		18,633				—		18,633
Noninterest income from contracts with customers $^{(1)}$.		6,270		109,284		(8,320)		107,234
Other noninterest income		18,174		8,967				27,141
Noninterest income		24,444		118,251		(8,320)		134,375
Amortization of intangibles		832		3,093				3,925
Other noninterest expense.		382,616		105,778		(8,320)		480,074
Noninterest expense.		383,448		108,871		(8,320)		483,999
Income before provision for income taxes		236,052		30,145				266,197
Provision for income taxes	_	43,910		8,741				52,651
Net income	\$	192,142	\$	21,404	\$		\$	213,546
Goodwill	\$	51,435	\$	147,012	\$		\$	198,447
Total Assets	\$	95,661,482	\$	625,532	\$	(192,792)	\$	96,094,222

⁽¹⁾ The Commercial Banking segment consists of noninterest income from contracts with customers related to deposit fees and the Wealth Management segment consists of investment management, brokerage and investment, insurance and trust fees.

(\$ in thousands)	C	Commercial Banking	Μ	Wealth Ianagement	Re	econciling Items	С	onsolidated Total
At or for the Nine Months Ended September 30, 2019								
Net interest income	\$	1,977,175	\$	66,874	\$	_	\$	2,044,049
Provision for loan losses		52,111				—		52,111
Noninterest income from contracts with customers $^{(1)}$.		20,511		336,766		(24,960)		332,317
Other noninterest income		55,914		31,644				87,558
Noninterest income		76,425		368,410		(24,960)		419,875
Amortization of intangibles		1,519		7,797		_		9,316
Other noninterest expense		1,274,663		328,597		(24,960)		1,578,300
Noninterest expense.	_	1,276,182		336,394		(24,960)		1,587,616
Income before provision for income taxes		725,307		98,890		_		824,197
Provision for income taxes		112,511		27,687		—		140,198
Net income.	\$	612,796	\$	71,203	\$		\$	683,999
Goodwill	\$	51,435	\$	147,012	\$		\$	198,447
Total Assets	\$	110,489,310	\$	780,547	\$	(241,122)	\$	111,028,735
At or for the Nine Months Ended September 30, 2018								
Net interest income	\$	1,775,535	\$	58,370	\$	_	\$	1,833,905
Provision for loan losses		51,003				—		51,003
Noninterest income from contracts with customers ⁽¹⁾		18,369		314,992		(26,319)		307,042
Other noninterest income		66,095		26,761				92,856
Noninterest income		84,464		341,753		(26,319)		399,898
Amortization of intangibles		2,822		9,774		_		12,596
Other noninterest expense	_	1,127,063		304,797		(26,319)		1,405,541
Noninterest expense.		1,129,885		314,571		(26,319)		1,418,137
Income before provision for income taxes		679,111		85,552		_		764,663
Provision for income taxes		118,187		24,066				142,253
Net income	\$	560,924	\$	61,486	\$		\$	622,410
Goodwill	\$	51,435	\$	147,012	\$		\$	198,447
Total Assets	\$	95,661,482	\$	625,532	\$	(192,792)	\$	96,094,222

⁽¹⁾ The Commercial Banking segment consists of noninterest income from contracts with customers related to deposit fees and the Wealth Management segment consists of investment management, brokerage and investment, insurance and trust fees.

The reconciling items for revenues include fees for managing the Bank's investment portfolio by FRIM and intercompany management fees related to the training and licensing of the Bank's licensed representatives by FRSC. The reconciling items for assets include subsidiary funds on deposit with the Bank and any intercompany receivable that is reimbursed at least on a quarterly basis.

Note 18. Subsequent Events

The Bank evaluated the effects of events that have occurred subsequent to the quarter ended September 30, 2019.

On October 18, 2019 (the "Series D Redemption Date"), we redeemed all outstanding depositary shares, each representing a 1/40th interest in a share of the Bank's 5.50% Noncumulative Perpetual Series D Preferred Stock ("Series D Preferred Stock"). In total, 7,600,000 depositary shares were redeemed at a redemption price of \$25.00 per share, representing an aggregate amount of \$190.0 million plus all accrued and unpaid dividends as of the Series D Redemption Date. As of the Series D Redemption Date, the Series D Preferred Stock was deemed no longer outstanding, and no further dividends will be declared on the Series D Preferred Stock. This redemption reduced the Bank's Tier 1 capital by \$190.0 million.

FIRST REPUBLIC BANK

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Information Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Statements in this Quarterly Report that are not historical facts are hereby identified as "forward-looking statements" for the purpose of the safe harbor provided by Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Any statements about our expectations, beliefs, plans, predictions, forecasts, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but not always, made through the use of words or phrases such as "anticipates," "believes," "can," "could," "may," "predicts," "potential," "should," "will," "estimates," "plans," "projects," "continuing," "ongoing," "expects," "intends" and similar words or phrases. Accordingly, these statements are only predictions and involve estimates, known and unknown risks, assumptions and uncertainties. Our actual results could differ materially from those expressed or anticipated in such forward-looking statements as a result of risks and uncertainties more fully described under "Item 1A. Risk Factors" in this Quarterly Report or under "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2018 (the "2018 Form 10-K").

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

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

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

- Significant competition to attract and retain banking and wealth management customers, from both traditional and non-traditional financial services and technology companies;
- Our ability to recruit and retain key managers, employees and board members;

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

- The possibility of earthquakes, fires and other natural disasters affecting the markets in which we operate;
- Interest rate risk and credit risk;
- Our ability to maintain and follow high underwriting standards;
- Economic and market conditions, including those affecting the valuation of our investment securities portfolio, which could result in other-than-temporary impairment if the general economy deteriorates, credit ratings decline, the financial condition of issuers deteriorates, interest rates increase or the liquidity for securities is limited;
- Real estate prices generally and in our markets;
- Our geographic and product concentrations;
- Demand for our products and services;
- Developments and uncertainty related to the future use and availability of reference rates, such as the London Interbank Offered Rate ("LIBOR") and the 11th District Monthly Weighted Average Cost of Funds Index ("COFI");
- The regulatory environment in which we operate, our regulatory compliance and future regulatory requirements;
- The impact of tax reform legislation;
- Any future changes to regulatory capital requirements;
- Legislative and regulatory actions affecting us and the financial services industry, such as the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), including increased compliance costs, limitations on activities and requirements to hold additional capital, as well as changes to the Dodd-Frank Act pursuant to the Economic Growth, Regulatory Relief, and Consumer Protection Act (the "EGRRCPA");
- Our ability to avoid litigation and its associated costs and liabilities;
- The impact of new accounting standards, including the estimated impact of the Current Expected Credit Losses ("CECL") accounting standard;
- Future Federal Deposit Insurance Corporation ("FDIC") special assessments or changes to regular assessments;
- Fraud, cybersecurity and privacy risks; and
- Custom technology preferences of our customers and our ability to successfully execute on initiatives relating to enhancements of our technology infrastructure, including client-facing systems and applications.

All forward-looking statements are necessarily only estimates of future results, and there can be no assurance that actual results will not differ materially from expectations, and, therefore, you are cautioned not to place undue reliance on such statements. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this Quarterly Report, the 2018 Form 10-K and our other public filings under the Exchange Act. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events.

Selected Financial Data

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

	At or f Quarter Septem	r En	ded	At or f Nine Mon Septem	ths	Ended
(\$ in thousands, except per share amounts)	 2019		2018	 2019		2018
Selected Financial Data:				 		
Interest income	\$ 909,776	\$	780,038	\$ 2,642,525	\$	2,202,951
Interest expense.	214,791		145,584	598,476		369,046
Net interest income	 694,985		634,454	 2,044,049		1,833,905
Provision for loan losses	16,711		18,633	52,111		51,003
Net interest income after provision for loan losses	 678,274		615,821	1,991,938		1,782,902
Noninterest income	142,207		134,375	419,875		399,898
Noninterest expense	533,950		483,999	1,587,616		1,418,137
Net income	234,844		213,546	683,999		622,410
Dividends on preferred stock	12,787		17,112	38,362		41,497
Net income available to common shareholders	\$ 222,057	\$	196,434	\$ 645,637	\$	580,913
Selected Ratios:						
Basic earnings per common share ("EPS")	\$ 1.32	\$	1.20	\$ 3.85	\$	3.58
Diluted EPS	\$ 1.31	\$	1.19	\$ 3.81	\$	3.52
Net income to average assets ⁽¹⁾	0.87%		0.91%	0.89%		0.93%
Net income available to common shareholders to average common equity ⁽¹⁾	10.50%		10.60%	10.49%		10.84%
Net income available to common shareholders to average tangible common equity ⁽¹⁾	10.84%		11.02%	10.85%		11.28%
Average total equity to average total assets	8.72%		9.12%	8.92%		9.04%
Dividends per common share	\$ 0.19	\$	0.18	\$ 0.56	\$	0.53
Dividend payout ratio	14.5%		15.2%	14.7%		15.1%
Book value per common share	\$ 50.41	\$	45.68	\$ 50.41	\$	45.68
Tangible book value per common share	\$ 48.84	\$	44.00	\$ 48.84	\$	44.00
Net interest margin ⁽¹⁾	2.80%		2.94%	2.87%		2.95%
Efficiency ratio (2)	63.8%		63.0%	64.4%		63.5%
Selected Asset Quality Ratios:						
Nonperforming assets to total assets	0.12%		0.04%	0.12%		0.04%
Allowance for loan losses to total loans	0.56%		0.57%	0.56%		0.57%
Allowance for loan losses to nonperforming loans	354.5%		976.6%	354.5%		976.6%
Net loan charge-offs to average total loans ⁽¹⁾	0.02%		0.00%	0.01%		0.00%
Capital Ratios:						
Tier 1 leverage ratio	8.50%		8.94%	8.50%		8.94%
Common Equity Tier 1 ratio	9.91%		10.47%	9.91%		10.47%
Tier 1 risk-based capital ratio	11.05%		12.14%	11.05%		12.14%
Total risk-based capital ratio	12.61%		13.90%	12.61%		13.90%

⁽¹⁾ Ratios are annualized.

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

Introduction

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

Critical Accounting Policies and the Impact of Accounting Estimates

Our discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to allowance for loan losses and income taxes. We base these estimates on our historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. We consider these to be critical accounting policies because of the significance to our financial condition and results of operations and the complex and subjective judgments, assumptions and estimates involved. Actual results may differ from these estimates under different assumptions or conditions. For discussion of our critical accounting policies and estimates, refer to "—Critical Accounting Policies and the Impact of Accounting Estimates" in Item 7 of our 2018 Form 10-K.

Current Accounting Developments

For a discussion of accounting standards that became effective during the nine months ended September 30, 2019, and accounting standards recently issued but that are not yet effective, refer to Note 1, "Summary of Significant Accounting Policies—Accounting Standards Adopted in 2019 and—Recent Accounting Standards," in "Item 1. Financial Statements."

Key Factors Affecting Our Business and Financial Statements

Regulatory and Supervisory Matters

Our results of operations are affected by the regulatory environment and requirements imposed on us by regulators. The extensive regulation and supervision that govern our business continues to evolve as the legal and regulatory framework changes and as our business grows. As described in our 2018 Form 10-K under "Item 1. Business—Supervision and Regulation," the Dodd-Frank Act significantly restructured the financial regulatory regime in the United States. The enactment of the EGRRCPA in May 2018 altered several provisions of the Dodd-Frank Act. Overall, the changes under the EGRRCPA mainly apply to smaller U.S. banks and to U.S. bank holding companies and, subject to rulemaking and implementation by our regulators, we expect them to have a limited effect on the Bank, including in the following areas, among others: a) company-run stress testing, b) treatment of municipal obligations as high quality liquid assets ("HQLA") and c) resolution planning. Specifically, the EGRRCPA and corresponding FDIC rule expanded the definition of HQLA to include certain municipal obligations, and HQLA now include such qualifying securities.

The EGRRCPA amended the Dodd-Frank Act to eliminate company-run stress testing requirements for financial institutions with less than \$250 billion in total consolidated assets, effective as of late November 2019. We have been informed by the FDIC that they have extended our stress test filing and reporting deadlines until late November 2019, at which point, under EGRRCPA, and consistent with the final rule issued by the FDIC in October 2019 on company-run stress testing requirements, we would no longer be subject to the Dodd-Frank Act's requirement to conduct annual company-run stress tests.

In April 2019, the FDIC released an advance notice of proposed rulemaking about potential changes to its resolution planning requirements for certain insured depository institutions ("IDIs"). The FDIC has also indicated that it will extend the submission deadline for the next IDI resolution plans to a later date or dates that the FDIC will specify in connection with final amendments to its IDI resolution planning requirements.

The Dodd-Frank Act prohibits banks and their affiliates from engaging in proprietary trading and investing in and sponsoring hedge funds and private equity funds and other investment vehicles, known as "covered funds," subject to certain detailed exemptions. The statutory provision is commonly called the "Volcker Rule." In August 2019, the FDIC, together with other federal agencies, adopted a final rule amending the regulations that implement the Volcker Rule. The final rule is effective on January 1, 2020 with a compliance date of January 1, 2021 and is intended to simplify and tailor the compliance requirements under the 2013 rule. Among other changes, the 2019 final rule tailors compliance program obligations for trading activities in tiers based on the level of trading assets and liabilities which benefits banking entities with limited trading activities like First Republic Bank and simplifies certain conditions for exemptions to the restrictions that apply to activities engaged in by banking entities. The agencies also signaled the intention to propose further amendments to the covered funds provisions of their Volcker Rule regulations. We do not believe the amendments to the regulations that implement the Volcker Rule will have a material impact on our business or operations.

We continue to evaluate the impact of these changes, and the nature, extent, timing and impact of any future changes to the Dodd-Frank Act and related regulatory requirements cannot be predicted.

Financial Highlights

At September 30, 2019, total assets were \$111.0 billion, a 12% increase compared to \$99.2 billion at December 31, 2018 and a 16% increase compared to \$96.1 billion at September 30, 2018.

At September 30, 2019, total investment securities were \$17.4 billion, a 7% increase compared to \$16.2 billion at December 31, 2018 and a 7% increase from \$16.3 billion at September 30, 2018. Total investment securities represented 16% of total assets at September 30, 2019 and December 31, 2018, compared to 17% at September 30, 2018. Our holdings of assets that are considered HQLA, including eligible cash, totaled \$13.6 billion at September 30, 2019, compared to \$14.8 billion at December 31, 2018 and \$15.0 billion at September 30, 2019. At September 30, 2019 and December 31, 2018, HQLA included \$5.7 billion and \$5.2 billion, respectively, of municipal securities. At September 30, 2019, HQLA represented 12.7% of average total assets for the third quarter of 2019. For additional discussion regarding our investment portfolio, see "—Balance Sheet Analysis—Investments."

At September 30, 2019, loans, excluding loans held for sale, were \$86.3 billion, a 14% increase compared to \$75.9 billion at December 31, 2018 and a 19% increase compared to \$72.3 billion at September 30, 2018. Our single family mortgage loans, including single family mortgage loans held for sale and home equity lines of credit ("HELOCs"), were \$47.4 billion and represented 55% of total loans at September 30, 2019, compared to \$40.6 billion, or 53% of total loans at December 31, 2018 and \$38.8 billion, or 53% of total loans at September 30, 2018.

Loan origination volume was \$11.1 billion for the third quarter of 2019, compared to \$7.0 billion for the third quarter of 2018, an increase of 58%, and was \$27.3 billion for the nine months ended September 30, 2019, compared to \$23.7 billion for the nine months ended September 30, 2018, an increase of 15%. The increase for the quarter was due to increases in single family, business, stock and other secured, commercial real estate and construction lending. The increase for the nine months was primarily due to increases in single family and commercial real estate lending, partially offset by a decrease in multifamily lending.

Total deposits were \$85.7 billion at September 30, 2019, an increase of 8% compared to \$79.1 billion at December 31, 2018, and an increase of 15% compared to \$74.8 billion at September 30, 2018. Deposits increased as a result of expanding existing client relationships, referrals from existing clients, and new deposit clients. We continue to emphasize building banking relationships through checking and other transaction deposit accounts. At September 30, 2019, balances in business and personal checking accounts were \$50.2 billion, or 59% of total deposits, compared to \$47.1 billion, or 60% of total deposits at December 31, 2018 and \$44.8 billion, or 60% of

total deposits at September 30, 2018. At September 30, 2019, business deposits were \$49.8 billion and represented 58% of total deposits, compared to \$44.3 billion, or 56% of total deposits at December 31, 2018, and \$42.2 billion, or 56% of total deposits at September 30, 2018.

Our Common Equity Tier 1 ("CET1") and total risk-based capital ratios at September 30, 2019 were 9.91% and 12.61%, respectively. We continue to exceed regulatory guidelines for well-capitalized institutions. Refer to "—Capital Resources" for further discussion of capital ratios and our capital requirements.

Book value per common share was \$50.41 at September 30, 2019, a 7% increase from December 31, 2018 and a 10% increase during the last twelve months. Tangible book value per common share was \$48.84 at September 30, 2019, an 8% increase from December 31, 2018 and an 11% increase during the last twelve months.

During the first nine months of 2019, we issued 2,000,000 shares of common stock in an "at-the-market" offering, which added \$170.6 million to common equity. In addition, on October 18, 2019, we redeemed all outstanding shares of our 5.50% Noncumulative Perpetual Series D Preferred Stock at an aggregate amount of \$190.0 million plus all accrued and unpaid dividends as of the redemption date.

Cash dividends paid in the third quarter of 2019 were \$0.19 per share of common stock to shareholders of record as of July 25, 2019, compared to \$0.18 in the third quarter of 2018. On October 15, 2019, we declared a cash dividend for the third quarter of \$0.19 per share, which is payable on November 14, 2019 to shareholders of record as of October 31, 2019. Any future payment of dividends will be subject to ongoing regulatory oversight and board approval.

Wealth management assets under management ("AUM") and assets under administration ("AUA") were \$140.2 billion at September 30, 2019, an increase of \$14.0 billion, or 11%, from \$126.2 billion at December 31, 2018 and an increase of \$9.2 billion, or 7%, from \$131.0 billion at September 30, 2018. See "—Business Segments" for additional information.

The Bank's effective tax rate for the quarter and nine months ended September 30, 2019 was 18.0% and 17.0%, respectively, compared to 19.8% and 18.6%, respectively, for the quarter and nine months ended September 30, 2018. See "—Provision for Income Taxes" for additional information.

Results of Operations— Quarter and Nine Months Ended September 30, 2019, Compared to Quarter and Nine Months Ended September 30, 2018

Overview

Net income for the quarter and nine months ended September 30, 2019 was \$234.8 million and \$684.0 million, compared to \$213.5 million and \$622.4 million for the quarter and nine months ended September 30, 2018, respectively, an increase of \$21.3 million, or 10%, for the quarter, and an increase of \$61.6 million, or 10%, for the nine months. Diluted EPS for the quarter and nine months ended September 30, 2019 were \$1.31 and \$3.81, compared to \$1.19 and \$3.52 for the quarter and nine months ended September 30, 2018, respectively, an increase of 8% for the nine months.

Net income for the Commercial Banking segment for the quarter and nine months ended September 30, 2019 was \$208.0 million and \$612.8 million, compared to \$192.1 million and \$560.9 million for the quarter and nine months ended September 30, 2018, respectively, an increase of 8% for the quarter and an increase of 9% for the nine months. The Wealth Management segment's net income for the quarter and nine months ended September 30, 2019 was \$26.9 million and \$71.2 million, compared to \$21.4 million and \$61.5 million for the quarter and nine months ended September 30, 2018, respectively, an increase of 26% for the quarter and an increase of 16% for the nine months. For a discussion of segment results, see "—Business Segments."

Net Interest Income and Net Interest Margin

Net interest income for the quarter and nine months ended September 30, 2019 was \$695.0 million and \$2.0 billion, compared to \$634.5 million and \$1.8 billion for the quarter and nine months ended September 30, 2018, respectively, an increase of \$60.5 million, or 10%, for the quarter and an increase of \$210.1 million, or 11%, for the nine months.

Net interest margin represents net interest income on a fully taxable-equivalent basis divided by total average interest-earning assets. Net interest margin for the quarter and nine months ended September 30, 2019 was 2.80% and 2.87%, compared to 2.94% and 2.95% for the quarter and nine months ended September 30, 2018, respectively. The decreases for the quarter and nine months were primarily due to increases in total funding costs, which outpaced the increases in yields on interest-earning assets.

Fully taxable-equivalent net interest income for the quarter and nine months ended September 30, 2019 was \$721.1 million and \$2.1 billion, compared to \$660.1 million and \$1.9 billion for the quarter and nine months ended September 30, 2018, respectively, an increase of 9% for the quarter and an increase of 11% for the nine months.

On an average basis, interest-earning assets and interest-bearing liabilities for the third quarter of 2019 increased 15% and 14%, respectively, from the third quarter of 2018. For the nine months ended September 30, 2019, average interest-earning assets and interest-bearing liabilities both increased 14% from the nine months ended September 30, 2018.

Yields/Rates (Fully Taxable-Equivalent Basis)

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

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		2019				
(\$ in thousands)	Average Balance	Interest Income/ Expense ⁽¹⁾	Yields/ Rates ⁽²⁾	Average Balance	Interest Income/ Expense ⁽¹⁾	Yields/ Rates ⁽²⁾
Assets:						
Cash and cash equivalents	\$ 1,161,441	\$ 5,430	1.86%	\$ 1,490,468	\$ 6,896	1.84%
Investment securities:	, , , , ,	• • • • • •		* , ,		
U.S. Government-sponsored agency securities Mortgage-backed securities ("MBS"):	740,893	5,375	2.90%	1,044,897	7,776	2.98%
Agency residential and commercial MBS	6,593,422	46,762	2.84%	7,355,930	51,705	2.81%
Other residential and commercial MBS	4,473	43	3.84%	4,690	37	3.16%
Municipal securities.	9,184,274	101,154	4.41%	7,989,269	93,425	4.68%
Other investment securities ⁽³⁾	24,977	156	2.49%	19,669	115	2.34%
Total investment securities	16,548,039	153,490	3.71%	16,414,455	153,058	3.73%
Loans:		254 (00	2.25%		201 521	2 220/
Residential real estate	45,754,902	374,690	3.27%	37,929,270	306,521	3.23%
Multifamily	11,446,955	112,624	3.85%	9,907,089	94,352	3.73%
Commercial real estate	7,366,320	79,213	4.21%	6,369,984	67,360	4.14%
Construction	2,152,911	26,599	4.83%	1,996,313	24,286	4.76%
Business	11,551,439	129,314	4.38%	9,828,856	108,350	4.31%
Other	5,704,872	48,746	3.34%	4,744,162	39,593	3.27%
Total loans	83,977,399	771,186	3.63%	70,775,674	640,462	3.58%
Federal Home Loan Bank ("FHLB") stock	321,778	5,779	7.13%	298,880	5,237	6.95%
Total interest-earning assets	102.008.657	935,885	3.63%	88,979,477	805,653	3.59%
Noninterest-earning assets:	102,000,007	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5.0570		000,000	5.0770
Noninterest-earning cash	335,648			353,753		
Goodwill and other intangibles	266,032			279,523		
Other assets	4,409,665			3,518,736		
Total noninterest-earning assets	5,011,345			4,152,012		
Total Assets	\$ 107,020,002			\$ 93,131,489		
	\$ 107,020,002			\$ 95,151,469		
Liabilities and Equity:						
Deposits:		0.501	0.070/		- 10/	0.050/
Checking	\$ 48,666,948	8,501	0.07%	\$ 44,102,853	5,186	0.05%
Money market checking and savings	20,536,777	53,046	1.02%	18,095,858	31,313	0.69%
Certificates of deposit ("CDs")	13,170,046	73,370	2.21%	9,770,083	44,939	1.82%
Total deposits	82,373,771	134,917	0.65%	71,968,794	81,438	0.45%
Borrowings:						
Short-term borrowings	2,204,262	12,520	2.25%	423,383	2,248	2.11%
Long-term FHLB advances	9,796,739	54,901	2.22%	9,681,793	46,872	1.92%
Senior notes ⁽⁴⁾	497,384	3,350	2.69%	895,791	5,928	2.65%
Subordinated notes ⁽⁴⁾	777,730	9,103	4.68%	777,328	9,098	4.68%
Total borrowings	13,276,115	79,874	2.39%	11,778,295	64,146	2.16%
Total interest-bearing liabilities	95,649,886	214,791	0.89%	83.747.089	145,584	0.69%
Noninterest-bearing liabilities.	2,037,177	214,771	0.0770	894,573	145,504	0.0970
	940,000			1,140,000		
Preferred equity	· · · · ·					
Common equity	8,392,939			7,349,827		
Total Liabilities and Equity	\$ 107,020,002		a = 10/	\$ 93,131,489		• • • • • •
Net interest spread ⁽⁵⁾			2.74%			2.90%
Net interest income (fully taxable-equivalent basis) and net interest margin ⁽⁶⁾		\$ 721,094	2.80%		\$ 660,069	2.94%
Reconciliation of tax-equivalent net interest income to reported net interest income:						
Municipal securities tax-equivalent adjustment		(19,391)			(18,948)	
		(1),0)1)			(10,210)	
1 1 J		(6 719)			(6 667)	
Business loans tax-equivalent adjustment		(6,718) \$ 694,985			(6,667)	

 $\overline{^{(1)}}$ Interest income is presented on a fully taxable-equivalent basis.

(2) Yields/rates are annualized.

⁽³⁾ Includes corporate debt securities, mutual funds and marketable equity securities.

⁽⁴⁾ Average balances include unamortized issuance discounts and costs. Interest expense includes amortization of issuance discounts and costs.

⁽⁵⁾ Net interest spread represents the average yield on interest-earning assets less the average rate on interest-bearing liabilities.

⁽⁶⁾ Net interest margin represents net interest income on a fully taxable-equivalent basis divided by total average interest-earning assets.

FIRST REPUBLIC BANK

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

		2019		ed September 30	2018	
(\$ in thousands)	Average Balance	Interest Income/ Expense ⁽¹⁾	Yields/ Rates ⁽²⁾	Average Balance	Interest Income/ Expense ⁽¹⁾	Yields/ Rates ⁽²⁾
Assets:		Expense			Expense	
Cash and cash equivalents	\$ 1,231,578	\$ 18,966	2.06%	\$ 1,341,984	\$ 16,494	1.64%
Investment securities:	\$ 1,201,070	\$ 10,900	2.0070	φ 1,5 11,5 01	φ 10,191	1.0.70
U.S. Treasury and other U.S. Government						
agency securities	_	_	%	6,277	87	1.85%
U.S. Government-sponsored agency securities MBS:	938,081	20,827	2.96%	1,081,651	23,989	2.96%
Agency residential and commercial MBS	6,705,085	144,106	2.87%	7,462,205	152,656	2.73%
Other residential and commercial MBS	4,508	131	3.88%	5,167	222	5.73%
Municipal securities	8,624,534	293,060	4.53%	8,139,055	287,447	4.71%
Other investment securities ⁽³⁾	21,121	403	2.54%	19,838	359	2.41%
Total investment securities	16,293,329	458,527	3.75%	16,714,193	464,760	3.71%
Loans:						
Residential real estate	43,212,351	1,073,950	3.31%	36,374,722	859,923	3.15%
Multifamily	11,039,188	323,788	3.87%	9,386,554	260,084	3.65%
Commercial real estate	7,042,107	226,874	4.25%	6,264,665	195,345	4.11%
Construction	2,164,414	79,888	4.87%	1,889,493	67,149	4.69%
Business	11,216,470	382,143	4.49%	9,204,049	295,925	4.24%
Other	5,382,125	139,274	3.41%	4,377,812	106,081	3.20%
Total loans	80,056,655	2,225,917	3.69%	67,497,295	1,784,507	3.51%
FHLB stock	310,758	15,768	6.78%	293,369	15,065	6.87%
Total interest-earning assets	97,892,320	2,719,178	3.69%	85,846,841	2,280,826	3.53%
Noninterest-earning assets:						
Noninterest-earning cash	341,984			348,613		
Goodwill and other intangibles	269,246			283,651		
Other assets	4,306,791			3,477,584		
Total noninterest-earning assets	4,918,021			4,109,848		
Total Assets	\$ 102,810,341			\$ 89,956,689		
Liabilities and Equity:						
Deposits:						
Checking	\$ 47,006,632	21,541	0.06%	\$ 43,312,861	16,173	0.05%
Money market checking and savings	19,714,378	146,900	1.00%	17,374,636	71,238	0.55%
CDs	12,457,649	203,411	2.18%	8,715,306	106,441	1.63%
Total deposits	79,178,659	371,852	0.63%	69,402,803	193,852	0.37%
Borrowings:			2 4 497			
Short-term borrowings.	2,016,744	36,832	2.44%	841,818	11,409	1.81%
Long-term FHLB advances	9,149,268	147,669	2.16%	8,985,073	118,716	1.77%
Senior notes ⁽⁴⁾	741,731	14,818	2.66%	895,368	17,777	2.65%
Subordinated notes ⁽⁴⁾	777,629	27,305	4.68%	777,231	27,292	4.68%
Total borrowings	12,685,372	226,624	2.39%	11,499,490	175,194	2.04%
Total interest-bearing liabilities	91,864,031	598,476	0.87%	80,902,293	369,046	0.61%
Noninterest-bearing liabilities	1,780,107			924,458		
Preferred equity	940,000			961,978		
Common equity	8,226,203			7,167,960		
Total Liabilities and Equity	\$ 102,810,341			\$ 89,956,689		
Net interest spread ⁽⁵⁾			2.82%			2.92%
Net interest income (fully taxable-equivalent basis) and net interest margin ⁽⁶⁾		\$ 2,120,702	2.87%		\$ 1,911,780	2.95%
Reconciliation of tax-equivalent net interest income to reported net interest income:						
Municipal securities tax-equivalent adjustment		(56,620)			(58,388)	
Business loans tax-equivalent adjustment		(20,033)			(19,487)	
Business loans tax-equivatent aujustinent						
Net interest income, as reported		\$ 2,044,049			\$ 1,833,905	

⁽¹⁾ Interest income is presented on a fully taxable-equivalent basis. ⁽²⁾ Yields/rates are annualized.

⁽³⁾ Includes corporate debt securities, mutual funds and marketable equity securities.
 ⁽⁴⁾ Average balances include unamortized issuance discounts and costs. Interest expense includes amortization of issuance discounts and costs.

⁽⁵⁾ Net interest spread represents the average yield on interest-earning assets less the average rate on interest-bearing liabilities.

⁽⁶⁾ Net interest margin represents net interest income on a fully taxable-equivalent basis divided by total average interest-earning assets.

Interest Income

Total interest income consists of interest income on loans and investments, FHLB stock dividends, and interest income on cash and cash equivalents. Total interest income was \$909.8 million and \$2.6 billion for the quarter and nine months ended September 30, 2019, compared to \$780.0 million and \$2.2 billion for the quarter and nine months ended September 30, 2018, respectively, an increase of \$129.7 million, or 17%, for the quarter and an increase of \$439.6 million, or 20%, for the nine months. The increase for the third quarter of 2019 was the result of an increase of 15% in average interest-earning assets, which were \$102.0 billion, compared to \$89.0 billion for the third quarter of 2018, and an increase in the average yield on interest-earning assets to 3.63% from 3.59% for the third quarter of 2018. The increase for the nine months ended September 30, 2019 was the result of an increase of 14% in average interest-earning assets, which were \$97.9 billion, compared to \$85.8 billion for the nine months ended September 30, 2018, and an increase in the average yield on interest-earning assets to 3.69% from 3.53% for the nine months ended September 30, 2018, and an increase in the average yield on interest-earning assets to 3.69% from 3.53% for the nine months ended September 30, 2018, and an increase in the average yield on interest-earning assets to 3.69% from 3.53% for the nine months ended September 30, 2018, and an increase in the average yield on interest-earning assets to 3.69% from 3.53% for the nine months ended September 30, 2018, and an increase in the average yield on interest-earning assets to 3.69% from 3.53% for the nine months ended September 30, 2018.

Loans

Interest income on loans for the quarter and nine months ended September 30, 2019 was \$764.5 million and \$2.2 billion, compared to \$633.8 million and \$1.8 billion for the quarter and nine months ended September 30, 2018, respectively, an increase of \$130.7 million, or 21%, for the quarter, and an increase of \$440.9 million, or 25%, for the nine months due to continued loan growth and increases in the average yield. Fully taxable-equivalent interest income on loans was \$771.2 million for the third quarter of 2019, compared to \$640.5 million for the third quarter of 2018, an increase of 20%, and was \$2.2 billion for the nine months ended September 30, 2019, compared to \$1.8 billion for the nine months ended September 30, 2018, an increase of 25%.

Average loan balances were \$84.0 billion for the third quarter of 2019, compared to \$70.8 billion for the third quarter of 2018, an increase of 19%, and were \$80.1 billion for the nine months ended September 30, 2019, compared to \$67.5 billion for the nine months ended September 30, 2018, an increase of 19%. The average yield on loans was 3.63% for the third quarter of 2019, compared to 3.58% for the third quarter of 2018, and was 3.69% for the nine months ended September 30, 2019, compared to 3.51% for the nine months ended September 30, 2018.

Interest income on loans included prepayment penalty fees of \$2.7 million and \$9.1 million for the quarter and nine months ended September 30, 2019, compared to \$2.9 million and \$6.4 million for the quarter and nine months ended September 30, 2018, respectively. The decrease in these fees for the quarter was primarily due to lower prepayments on multifamily loans. The increase in these fees for the nine months ended September 30, 2019 was primarily due to higher prepayments on multifamily, single family and commercial real estate loans.

Our yield on loans is affected by a number of factors: market interest rates, the level of adjustable-rate loan indices, interest rate floors and caps, the repayment rate of loans, portfolio mix and the level of nonaccrual loans. Our weighted average contractual loan rate (on a fully taxable-equivalent basis) was 3.59% at September 30, 2019, compared to 3.68% at December 31, 2018 and 3.59% at September 30, 2018. For adjustable-rate mortgages ("ARMs"), the yield is also affected by the timing of changes in the loan rates, which generally lag market rate changes. At September 30, 2019, approximately 30% of our total loans were adjustable-rate or mature within one year, compared to 33% and 34% at December 31, 2018 and September 30, 2018, respectively.

Investments

Interest income on investments for the quarter and nine months ended September 30, 2019 was \$134.1 million and \$401.9 million, compared to \$134.1 million and \$406.4 million for the quarter and nine months ended September 30, 2018, respectively, a slight decrease for the nine months. Fully taxable-equivalent interest income on investments was \$153.5 million and \$458.5 million for the quarter and nine months ended September 30, 2019, compared to \$153.1 million and \$464.8 million for the quarter and nine months ended September 30, 2018, a slight decrease for the nine months.

Average investment balances were \$16.5 billion for the third quarter of 2019, compared to \$16.4 billion for the third quarter of 2018, a slight increase, and were \$16.3 billion for the nine months ended September 30, 2019, compared to \$16.7 billion for the nine months ended September 30, 2018, a slight decrease. The average yield on investment securities for the third quarter of 2019 was 3.71%, compared to 3.73% for the third quarter of 2018, a decline of 2 basis points, and was 3.75% for the nine months ended September 30, 2019, compared to 3.71% for the nine months ended September 30, 2019, a decline of 2 basis points, and was 3.75% for the nine months ended September 30, 2019, compared to 3.71% for the nine months ended September 30, 2018, an increase of 4 basis points. The yield increase for the nine months was the result of higher yield on agency residential and commercial MBS, partially offset by lower yield on municipal securities, and also due to a change in the mix of the investment portfolio.

FHLB Stock

Dividends on FHLB stock for the quarter and nine months ended September 30, 2019 were \$5.8 million and \$15.8 million, compared to \$5.2 million and \$15.1 million for the quarter and nine months ended September 30, 2018, respectively, a 10% increase for the quarter and a 5% increase for the nine months. The increases in dividend income for these periods were primarily driven by increases in average FHLB stock balances. Average FHLB stock balances were \$321.8 million for the third quarter of 2019, compared to \$298.9 million for the third quarter of 2018, an increase of 8%, and were \$310.8 million for the nine months ended September 30, 2019, compared to \$293.4 million for the nine months ended September 30, 2018, an increase of 6%. The average yield on FHLB stock was 7.13% for the third quarter of 2019, compared to 6.95% for the third quarter of 2018, and was 6.78% for the nine months ended September 30, 2018.

Interest Expense

Total interest expense consists of interest expense on deposits, federal funds purchased, FHLB advances, senior notes, subordinated notes and other borrowings. Total interest expense was \$214.8 million and \$598.5 million for the quarter and nine months ended September 30, 2019, compared to \$145.6 million and \$369.0 million for the quarter and nine months ended September 30, 2018, respectively, an increase of \$69.2 million, or 48%, for the quarter, and an increase of \$229.4 million, or 62%, for the nine months. The increase for the third quarter of 2019 was the result of an increase of 14% in average interest-bearing liabilities, which were \$95.6 billion, compared to \$83.7 billion for the third quarter of 2018. The increase for the nine months ended September 30, 2018. The increase for the nine set of 30, 2019 was the result of an increase of 2018. The increase for the nine months ended September 30, 2019 was the result of an increase of 2018. The increase for the nine months ended September 30, 2019 was the result of an increase of 2018. The increase for the nine months ended September 30, 2019 was the result of an increase of 14% in average interest-bearing liabilities, which were \$91.9 billion, compared to \$80.9 billion for the nine months ended September 30, 2018, and an increase in the average cost of interest-bearing liabilities to 0.87% from 0.61% for the nine months ended September 30, 2018, and an increase in the average cost of interest-bearing liabilities to 0.87% from 0.61% for the nine months ended September 30, 2018.

Deposits

Interest expense on deposits was \$134.9 million and \$371.9 million for the quarter and nine months ended September 30, 2019, compared to \$81.4 million and \$193.9 million for the quarter and nine months ended September 30, 2018, respectively, an increase of \$53.5 million for the quarter, and an increase of \$178.0 million for the nine months. The increases in interest expense were driven by an increase in rates paid on deposits due to an increase in market rates of interest, along with growth in deposit balances. The average interest rate paid on deposits was 0.65% and 0.45% for the third quarter of 2019 and 2018, and was 0.63% and 0.37% for the nine months ended September 30, 2019 and 2018, respectively.

Average deposit balances were \$82.4 billion for the third quarter of 2019, an increase of 14% from \$72.0 billion for the third quarter of 2018, and were \$79.2 billion for the nine months ended September 30, 2019, an increase of 14% from \$69.4 billion for the nine months ended September 30, 2018. The following table presents average deposit balances by deposit type as a percentage of average total deposits:

	Quarter I Septemb		Nine Month Septemb	
Average Deposits by Type as a % of Average Total Deposits	2019	2018	2019	2018
Checking	59%	61%	59%	62%
Money market checking and savings	25%	25%	25%	25%
CDs	16%	14%	16%	13%

At September 30, 2019, our total deposits were \$85.7 billion, compared to \$74.8 billion at September 30, 2018, an increase of 15%, and the weighted average contractual rate paid on total deposits was 0.64% and 0.50%, respectively. We will continue to focus on growth in our core deposit base to fund a significant percentage of our future asset growth, although there can be no assurance we will be successful. If we are not successful, we may need to use other sources of funding, such as federal funds purchased, FHLB advances, unsecured term senior notes or unsecured term subordinated notes, which are generally higher in cost.

Borrowings

Interest expense on borrowings was \$79.9 million and \$226.6 million for the quarter and nine months ended September 30, 2019, compared to \$64.1 million and \$175.2 million for the quarter and nine months ended September 30, 2018, respectively, an increase of \$15.7 million, or 25%, for the quarter, and an increase of \$51.4 million, or 29%, for the nine months. Such increases were primarily due to increases in average short-term borrowings, as well as higher market interest rates on new borrowings.

Short-term borrowings, which include federal funds purchased and short-term FHLB advances, have an original maturity of one year or less. At September 30, 2019, short-term borrowings were \$775.0 million, compared to \$100.0 million at September 30, 2018. Interest expense on short-term borrowings was \$12.5 million and \$36.8 million for the quarter and nine months ended September 30, 2019, compared to \$2.2 million and \$11.4 million for the quarter and nine months ended September 30, 2018, respectively, an increase of \$10.3 million for the quarter and an increase of \$25.4 million for the nine months. The increases were due to increases in both average short-term borrowings and their average cost. Average short-term borrowings for the quarters ended September 30, 2019 and 2018 were \$2.2 billion and \$423.4 million, and were \$2.0 billion and \$841.8 million for the nine months ended September 30, 2019 and 2018, respectively. The average cost of short-term borrowings was 2.25% and 2.11% for the quarters ended September 30, 2019 and 2018, and was 2.44% and 1.81% for the nine months ended September 30, 2019 and 2018, respectively.

At September 30, 2019, long-term FHLB advances outstanding were \$10.9 billion, compared to \$9.6 billion at September 30, 2018. Interest expense on long-term FHLB advances was \$54.9 million and \$147.7 million for the quarter and nine months ended September 30, 2019, compared to \$46.9 million and \$118.7 million for the quarter and nine months ended September 30, 2018, respectively, an increase of \$8.0 million, or 17%, for the quarter, and an increase of \$29.0 million, or 24%, for the nine months. The increases were primarily due to increases in the average cost of long-term FHLB advances as a result of higher interest rates on new advances, compared to the interest rates on matured borrowings. The average cost of long-term FHLB advances was 2.22% and 1.92% for the third quarter of 2019 and 2018, respectively, and was 2.16% and 1.77% for the nine months ended September 30, 2019, compared to \$9.7 billion for the third quarter of 2018, and were \$9.1 billion for the nine months ended September 30, 2019, compared to \$9.0 billion for the nine months ended September 30, 2019, compared to \$9.0 billion for the nine months ended September 30, 2019, compared to \$9.0 billion for the nine months ended September 30, 2019, compared to \$9.0 billion for the nine months ended September 30, 2019, compared to \$9.0 billion for the nine months ended September 30, 2019, compared to \$9.0 billion for the nine months ended September 30, 2019, compared to \$9.0 billion for the nine months ended September 30, 2019, compared to \$9.0 billion for the nine months ended September 30, 2019, compared to \$9.0 billion for the nine months ended September 30, 2019, compared to \$9.0 billion for the nine months ended September 30, 2018, a slight increase for both the quarter and nine months. Average long-term FHLB advances as a proportion of total average interest-bearing liabilities were 10% for both the quarter and nine months ended September 30, 2019, compared to 12% and 11% for the quarter and nine months ended September 30, 2019, compared to 12% and

At September 30, 2019, the carrying value of unsecured senior notes was \$497.5 million, compared to \$896.0 million at September 30, 2018. Interest expense on our fixed-rate senior notes was \$3.4 million and \$14.8 million for the quarter and nine months ended September 30, 2019, compared to \$5.9 million and \$17.8 million for the quarter and nine months ended September 30, 2018, respectively, and includes contractual interest, increased by amortization of issuance discounts and offering costs. The 2.375% fixed-rate senior notes issued in June 2014 of \$400.0 million were repaid at their maturity date in the second quarter of 2019, which resulted in a decrease in interest expense for the quarter and nine months ended September 30, 2019.

At September 30, 2019, the carrying value of unsecured subordinated notes totaled \$777.8 million, compared to \$777.4 million at September 30, 2018. Interest expense on our fixed-rate subordinated notes was \$9.1 million for the quarters ended September 30, 2019 and 2018, and \$27.3 million for the nine months ended September 30, 2019 and 2018, respectively, and includes contractual interest, increased by amortization of issuance discounts and offering costs.

Provision for Loan Losses

The provision for loan losses was \$16.7 million and \$52.1 million for the quarter and nine months ended September 30, 2019, compared to \$18.6 million and \$51.0 million for the quarter and nine months ended September 30, 2018, respectively. The provision for loan losses is related primarily to growth in loans outstanding and reflects management's continuing assessment of the credit quality of the Bank's loan portfolio and our overall allowance methodology, which considers, among other things, the Bank's loan growth, level and type of loans originated and current trends in the Bank's markets.

Noninterest Income

The following table presents noninterest income:

	Quarter Septen		Nine Mon Septem	ths Ended iber 30,
(\$ in thousands)	2019	2018	2019	2018
Investment management fees.	\$ 83,582	\$ 88,560	\$ 262,226	\$ 249,602
Brokerage and investment fees	12,673	7,207	28,619	23,770
Insurance fees	2,712	1,851	8,522	4,646
Trust fees	4,105	3,599	12,221	10,694
Foreign exchange fee income	11,685	8,439	30,661	25,383
Deposit fees	6,563	6,225	19,462	18,490
Loan and related fees	5,341	4,091	13,644	11,842
Loan servicing fees, net	2,347	3,151	9,560	9,856
Gain on sale of loans	122	303	466	5,037
Gain (loss) on investment securities	(683)	(1,655)	(1,895)	6,515
Income from investments in life insurance	12,152	11,608	31,536	30,697
Other income	1,608	996	4,853	3,366
Total noninterest income	\$ 142,207	\$ 134,375	\$ 419,875	\$ 399,898

Noninterest income for the quarter and nine months ended September 30, 2019 was \$142.2 million and \$419.9 million, compared to \$134.4 million and \$399.9 million for the quarter and nine months ended September 30, 2018, respectively, an increase of \$7.8 million, or 6%, for the quarter and an increase of \$20.0 million, or 5%, for the nine months. The increase for the quarter was primarily due to an increase in brokerage and investment fees and foreign exchange fee income, partially offset by a decrease in investment management fees attributable to the departure of wealth managers in the second quarter of 2019. The increase for the nine months was primarily due to an increase in wealth management fees, partially offset by a decrease in gain on investment securities from the repositioning of the Bank's investment portfolio in the first quarter of 2018.

Wealth Management Fees

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

Investment management fees. We provide traditional portfolio management and customized client portfolios through First Republic Investment Management, Inc. ("FRIM"). We earn fee income from the management of equity securities, fixed income securities, balanced portfolios and alternative investments for our clients. In addition, we employ experienced wealth managers to work with our relationship managers to generate new AUM using an open architecture platform. Investment management fees for the quarter and nine months ended September 30, 2019 were \$83.6 million and \$262.2 million, compared to \$88.6 million and \$249.6 million for the quarter and nine months ended September 30, 2018, respectively, a 6% decrease for the quarter and a 5% increase for the nine months. The decrease in investment management fees for the quarter was primarily driven by the departure of wealth managers in the second quarter of 2019. The increase in investment management fees for the nine months was primarily driven by growth in AUM. Investment management fees vary with the amount of assets managed and the type of services and investments chosen by the client, which are impacted by market conditions. Generally, higher fees are earned for managing equity securities than for managing a fixed income portfolio. FRIM's AUM were \$61.2 billion at September 30, 2019, compared to \$62.5 billion at September 30, 2018, a decrease of 2% primarily driven by the departure of wealth managers in the second quarter of 2019, partially offset by the addition of assets from existing and new clients, and market appreciation. The addition of client assets was the result of growth in investment management services to Bank clients, acquiring new clients, the successful marketing efforts of existing wealth managers and the hiring of experienced wealth managers who brought their clients with them. The future level of these fees depends on the level and mix of AUM, conditions in the equity markets and our ability to attract new clients.

Brokerage and investment fees. We perform brokerage and investment activities for clients through First Republic Securities Company, LLC ("FRSC"). We employ wealth managers to acquire treasury securities, municipal bonds, money market mutual funds and other shorter-term liquid investments at the request of clients or their financial advisors, and to offer sales of insurance and annuity products to clients. These wealth managers can also execute transactions for a full array of longer-term equity and fixed income securities. Brokerage and investment fees for the quarter and nine months ended September 30, 2019 were \$12.7 million and \$28.6 million, compared to \$7.2 million and \$23.8 million for the quarter and nine months ended September 30, 2018, respectively, a 76% increase for the quarter and a 20% increase for the nine months. Such fees vary based on the volume and type of transaction activity, conditions in the securities markets and our ability to attract new clients. At September 30, 2019, we held \$67.5 billion of client assets in brokerage accounts through FRSC and in third-party money market mutual funds, compared to \$58.0 billion at September 30, 2018, an increase of 16%.

Insurance fees. We earn revenue from selling life insurance and annuity policies to our clients through FRSC and FRIM. Insurance fees consist of initial commissions when a policy is sold and subsequent commissions each year that a policy is renewed. Insurance fees for the quarter and nine months ended September 30, 2019 were \$2.7 million and \$8.5 million, compared to \$1.9 million and \$4.6 million for the quarter and nine months ended September 30, 2018, respectively, an increase of \$861,000 for the quarter and an increase of \$3.9 million for the nine months. Such fees vary based on the level of sales of insurance and annuity products and our ability to attract new clients. There is no underwriting risk for the Bank from the sale of insurance products.

Trust fees. First Republic Trust Company, a division of the Bank, and First Republic Trust Company of Delaware LLC ("FRTC Delaware") (collectively, the "Trust Company") specializes in personal trusts and custody services and operates in California, Oregon, Washington, New York, Massachusetts, Delaware, Florida and Connecticut. The Trust Company draws new trust clients from our Preferred Banking and wealth management client base, as well as from outside of our organization. Trust fees were \$4.1 million and \$12.2 million for the quarter and nine months ended September 30, 2019, compared to \$3.6 million and \$10.7 million for the quarter and nine months. The

increases were primarily due to increases in assets under custody or administration from existing and new clients and market appreciation. At September 30, 2019, assets under custody or administration were \$11.6 billion, compared to \$10.5 billion at September 30, 2018, an increase of 10%. Trust fees are primarily based on the level and mix of assets under custody or administration and will vary in the future based on these factors.

Foreign exchange fee income. Foreign exchange fee income represents fees we earn from transacting foreign exchange business on behalf of our clients. We earned foreign exchange fee income of \$11.7 million and \$30.7 million for the quarter and nine months ended September 30, 2019, compared to \$8.4 million and \$25.4 million for the quarter and nine months ended September 30, 2018, respectively, an increase of 38% for the quarter and an increase of 21% for the nine months. The amount of foreign exchange fees is primarily driven by volume of activity from both existing and new clients.

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

Other Noninterest Income

Deposit fees. We earn fees from our clients for deposit services. Deposit fees were \$6.6 million and \$19.5 million for the quarter and nine months ended September 30, 2019, compared to \$6.2 million and \$18.5 million for the quarter and nine months ended September 30, 2018, respectively, an increase of 5% for both the quarter and nine months. The increases in deposit fees were primarily driven by volume of activity from both existing and new clients and growth in overall deposits.

Loan and related fees. Loan and related fee income was \$5.3 million and \$13.6 million for the quarter and nine months ended September 30, 2019, compared to \$4.1 million and \$11.8 million for the quarter and nine months ended September 30, 2018, respectively. Loan and related fee income includes: late charge income, which generally increases with growth in the average loan and servicing portfolios; loan-related processing fees that vary with market conditions and loan origination volumes; prepayment penalties on sold loans; and payoff fees that vary with loan repayment activity and market conditions such as the general level of longer-term interest rates.

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

	Quarter Septem		Nine Months Ended September 30,					
(\$ in thousands)	2019	2018		2019	2018			
Contractually specified servicing fees	\$ 6,517	\$ 7,511	\$	20,458	\$	22,795		
MSR amortization expense	(3,540)	(4,360)		(10,268)		(12,939)		
MSR provision for valuation allowance.	 (630)	 		(630)				
Loan servicing fees, net	\$ 2,347	\$ 3,151	\$	9,560	\$	9,856		

Contractual servicing fees were \$6.5 million and \$20.5 million for the quarter and nine months ended September 30, 2019, compared to \$7.5 million and \$22.8 million for the quarter and nine months ended September 30, 2018, respectively, a decrease of 13% for the quarter and a decrease of 10% for the nine months. The decreases in net loan servicing fees were primarily due to the decline in the servicing portfolio and an MSR provision for valuation allowance, as a result of higher prepayments due to the interest rate environment. The average servicing portfolio was \$10.5 billion and \$11.1 billion for the quarter and nine months ended September 30, 2019, compared to \$12.1 billion and \$12.2 billion for the quarter and nine months ended September 30, 2018, respectively, a

decrease of 13% for the quarter and a decrease of 9% for the nine months. The amount of contractual servicing fees depends upon the size of the servicing portfolio, the terms of the loans at origination, the interest rate environment and conditions in the secondary market when the loans are sold, as well as the rate of loan payoffs. Annualized weighted average servicing fees collected as a percentage of loans serviced were 0.25% for both the third quarter of 2019 and 2018, and for both the nine months ended September 30, 2019 and 2018.

The amount of net loan servicing fees that we record is affected by the rate of repayment of loans in the servicing portfolio. The overall annualized repayment speed experienced on loans serviced was 24% and 19% for the quarter and nine months ended September 30, 2019, compared to 15% for both the quarter and nine months ended September 30, 2018, respectively. If actual repayments of loans serviced are lower than our estimate of future repayments, we could reduce the amortization of MSRs and release a valuation allowance, if any, which would increase our expected level of future earnings. If actual repayments on loans serviced are higher than our estimates of future repayments, we may be required to increase the amortization of MSRs and reduce the carrying value of MSRs through the establishment of a valuation allowance, thereby decreasing our expected level of current and future earnings.

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

	Quarte Septer				Nine Mon Septen		
(\$ in thousands) Gain on sale of loans	2019		2018	2019		2018	
Gain on sale of loans	\$ 122	\$	303	\$	466	\$	5,037
Loans sold.	\$ 37,146	\$	92,137	\$	246,811	\$	975,469
Gain as a percentage of loans sold	0.33%)	0.33%		0.19%		0.52%

The lower level of gain on sale of loans for both the quarter and nine months ended September 30, 2019 compared to the same periods a year ago was primarily the result of the lower volume of loans sold. The decrease for the nine months was also driven by lower margins.

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

	Quarter Septem		Nine Months Ended September 30,					
(\$ in thousands)	2019	2018		2019		2018		
Net gain (loss) on sales of investment securities	\$ (890)	\$ (779)	\$	(2,912)	\$	7,711		
Net change in fair value of equity securities	 207	 (876)		1,017		(1,196)		
Gain (loss) on investment securities	\$ (683)	\$ (1,655)	\$	(1,895)	\$	6,515		

The gain on sales of investment securities for the nine months ended September 30, 2018 was primarily due to the repositioning of the Bank's investment portfolio.

Income from investments in life insurance. Income from investments in bank-owned life insurance was \$12.2 million and \$31.5 million for the quarter and nine months ended September 30, 2019, compared to \$11.6 million and \$30.7 million for the quarter and nine months ended September 30, 2018, respectively. The book value of this portfolio of tax-exempt investments was \$1.4 billion at both September 30, 2019 and 2018.

Noninterest Expense

The following table presents noninterest expense:

	Quarte Septen		Nine Mon Septen	
(\$ in thousands)	2019	2018	2019	2018
Salaries and employee benefits	\$ 309,655	\$ 279,248	\$ 920,432	\$ 828,207
Information systems	66,612	59,259	204,059	177,753
Occupancy	50,722	38,792	142,204	112,180
Professional fees	17,507	15,718	45,623	44,720
Advertising and marketing	15,912	13,527	48,346	40,575
FDIC assessments	9,748	17,679	27,847	49,275
Other expenses	63,794	59,776	199,105	165,427
Total noninterest expense.	\$ 533,950	\$ 483,999	\$ 1,587,616	\$ 1,418,137

Noninterest expense for the quarter and nine months ended September 30, 2019 was \$534.0 million and \$1.6 billion, compared to \$484.0 million and \$1.4 billion for the quarter and nine months ended September 30, 2018, respectively, an increase of \$50.0 million, or 10%, for the quarter and an increase of \$169.5 million, or 12%, for the nine months. The increases in noninterest expense were primarily due to higher salaries and employee benefits, occupancy expenses, investments in information systems and other expenses from the continued investments in the expansion of the franchise.

Noninterest expense was reduced by certain general and administrative costs, primarily compensation costs directly related to loan originations, which have been capitalized in accordance with Accounting Standards Codification ("ASC") 310-20, "Nonrefundable Fees and Other Costs." We capitalized loan origination costs of \$47.9 million and \$123.0 million for the quarter and nine months ended September 30, 2019, compared to \$31.8 million and \$96.5 million for the quarter and nine months ended September 30, 2018, respectively, an increase of 51% for the quarter and an increase of 27% for the nine months. The amount of capitalized costs varies directly with the volume of loan originations and the costs incurred to make new loans. The capitalized costs are reported as net deferred loan fees and costs on our balance sheet and are amortized to interest income over the contractual life of the loans.

Our efficiency ratio, the ratio of noninterest expense to the sum of net interest income and noninterest income, was 63.8% for the third quarter of 2019, compared to 63.0% for the third quarter of 2018, and was 64.4% for the nine months ended September 30, 2019, compared to 63.5% for the nine months ended September 30, 2019. The increases in the efficiency ratio were primarily attributable to increased salaries and employee benefits, occupancy expenses and information systems costs from the continued investments in the expansion of the franchise. The increase in the efficiency ratio was further attributable to the reduction of the net interest margin for the quarter and nine months, which impacted the growth in total revenues.

Salaries and employee benefits. Salaries and employee benefits is the largest component of noninterest expense and includes the cost of salaries, incentive compensation, benefit plans, health insurance and payroll taxes, which have collectively increased as we hired additional personnel to support our growth and our enhanced regulatory infrastructure. Salaries and employee benefit expenses were \$309.7 million and \$920.4 million for the quarter and nine months ended September 30, 2019, compared to \$279.2 million and \$828.2 million for the quarter and nine months ended September 30, 2018, respectively, an 11% increase for both the quarter and nine months. The increases were primarily the result of the addition of new personnel to support higher levels of lending, deposit growth, expansion of wealth management and higher incentive compensation related to the continued expansion of our franchise. At September 30, 2019, we had 4,880 full-time equivalent employees, including temporary employees and independent contractors, a 12% increase from 4,340 at September 30, 2018.

Information systems. These expenses include payments to vendors that provide software and services on an outsourced basis, costs related to supporting and developing digital platforms and the costs associated with telecommunications for ATMs, office activities and internal networks. These expenses also include equipment depreciation and amortization costs of software and licenses. Expenses for information systems were \$66.6 million and \$204.1 million for the quarter and nine months ended September 30, 2019, compared to \$59.3 million and \$177.8 million for the quarter and nine months ended September 30, 2018, respectively, a 12% increase for the quarter, and a 15% increase for the nine months. The increases in information systems costs were primarily due to continued technology initiatives to upgrade our systems, including our mobile and online banking platform, enhance the client experience and support our growth.

Occupancy. Occupancy costs were \$50.7 million and \$142.2 million for the quarter and nine months ended September 30, 2019, compared to \$38.8 million and \$112.2 million for the quarter and nine months ended September 30, 2018, respectively, a 31% increase for the quarter and a 27% increase for the nine months. The increases were primarily due to expanding our office space in existing markets for new employees, increased rental costs in certain locations and rental costs for additional banking office locations. We expect the level of occupancy costs to vary with the number of offices and our staffing levels.

Professional fees. Professional fees include legal services required to complete certain transactions, resolve legal matters or delinquent loans, and the cost of loan review professionals, co-sourced internal audit, external auditors and other consultants, including consulting services dedicated to technology initiatives. Such expenses were \$17.5 million and \$45.6 million for the quarter and nine months ended September 30, 2019, compared to \$15.7 million and \$44.7 million for the quarter and nine months. The increase in professional fees for the quarter was primarily due to higher consulting fees.

Advertising and marketing. We advertise in various forms of media, including digital media, newspapers, radio, and television, primarily to support growth in our Preferred Banking offices and for advertising and marketing initiatives related to the Bank's next generation of clients. Advertising and marketing expenses were \$15.9 million and \$48.3 million for the quarter and nine months ended September 30, 2019, compared to \$13.5 million and \$40.6 million for the quarter and nine months ended September 30, 2018, respectively, an increase of 18% for the quarter and an increase of 19% for the nine months. These expenses vary based on the number of marketing initiatives, level of advertising costs and costs associated with holding client events to support our growth. The increases for the quarter and nine months were primarily due to advertising and marketing initiatives associated with the Bank's next generation of clients and costs associated with holding client events to support our growth. The increase for the quarter was partially offset by a decrease in deposit-related promotions.

FDIC assessments. FDIC assessments were \$9.7 million and \$27.8 million for the quarter and nine months ended September 30, 2019, compared to \$17.7 million and \$49.3 million for the quarter and nine months ended September 30, 2018, respectively, a 45% decrease for the quarter and a 43% decrease for the nine months. The decreases were primarily due to the elimination of the FDIC assessment surcharge in the fourth quarter of 2018, partially offset by growth in the assessment base as a result of the growth in average total assets.

Other expenses. Other expenses were \$63.8 million and \$199.1 million for the quarter and nine months ended September 30, 2019, compared to \$59.8 million and \$165.4 million for the quarter and nine months ended September 30, 2018, respectively, an increase of 7% for the quarter and an increase of 20% for the nine months. These expenses include costs related to lending and deposit activities, client service, amortization of intangibles, insurance, hiring, training and other costs related to expanding operations. Other operating expenses include postage, charitable contributions, cash management, custody and clearing, and other miscellaneous expenses. Expenses in this category have increased primarily due to higher transaction volumes of loans, deposits and AUM and AUA, as well as an increase in the number of office locations and employees. The following table presents the main components of other expenses:

	Quarte Septen			Nine Months Ended September 30,					
(\$ in thousands)	 2019	2018		2019			2018		
Deposit client related costs	\$ 18,489	\$	13,804	\$	59,013	\$	37,071		
Travel and entertainment.	6,429		5,278		19,518		15,465		
Loan related costs	4,551		4,612		12,676		15,474		
Subscriptions	4,513		4,038		12,607		10,798		
Training	2,923		3,307		10,928		9,586		
Recruiting fees.	2,733		3,130		9,623		6,432		
Amortization of intangibles.	2,832		3,925		9,316		12,596		
Insurance	2,983		2,903		8,709		8,533		
Other operating expenses	18,341		18,779		56,715		49,472		
Total other expenses	\$ 63,794	\$	59,776	\$	199,105	\$	165,427		

Provision for Income Taxes

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

The Bank's effective tax rate for the third quarter of 2019 was 18.0%, compared to 19.8% for the third quarter of 2018. The Bank's effective tax rate for the nine months ended September 30, 2019 was 17.0%, compared to 18.6% for the nine months ended September 30, 2018. The effective tax rate varies based on the level of tax credit investments, tax-exempt securities, tax-advantaged loans, investments in life insurance and the amount of excess tax benefits from exercise or vesting of share-based awards. The decreases for the quarter and nine months were primarily due to higher excess tax benefits from an increase in stock option exercises by employees.

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

	Quarter l Septemb		Nine Month Septemb	
Effective Tax Rate	2019	2018	2019	2018
Effective tax rate, prior to excess tax benefits	21.4%	20.8%	21.4%	21.1%
Excess tax benefits—stock options	(3.3)%	(0.9)%	(3.6)%	(1.3)%
Excess tax benefits—other stock awards	(0.1)%	(0.1)%	(0.8)%	(1.2)%
Total excess tax benefits	(3.4)%	(1.0)%	(4.4)%	(2.5)%
Effective tax rate	18.0%	19.8%	17.0%	18.6%

The number of options exercised or stock awards that vest, as well as the fair value at grant date and vesting date impact the amount of excess tax benefits recorded as a reduction in provision for income taxes. The following table presents excess tax benefits recognized for stock options exercised and other stock awards that vested during the periods indicated:

			•	· Ended iber 30,				Γ		ths Ended 1ber 30,							
	20	19		2018			2019			2019			20	018			
(\$ in thousands)	Exercised Excess		Related cess Tax Benefit	Number of Awards Exercised or Vested	vards Rela ercised Exces		Related d Excess Tax		ds Related sed Excess Ta		Number of Awards Related Exercised Excess Tax or Vested Benefit		xcess Tax	Number of Awards Exercised or Vested	E	Related xcess Tax Benefit	
Stock options	432,822	\$	9,579	105,006	\$	2,579	1,304,375	\$	30,016	456,230	\$	10,386					
Other stock awards	49,094		34	17,427		177	1,187,185		6,164	1,048,030		8,946					
Total	481,916	\$	9,613	122,433	\$	2,756	2,491,560	\$	36,180	1,504,260	\$	19,332					

Business Segments

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

The principal business activities of the Commercial Banking segment are attracting funds from the general public, originating loans (primarily real estate secured mortgage loans) and investing in investment securities. The primary sources of revenue for this segment are: (1) interest earned on loans and investment securities, (2) gains on sales of loans, (3) fees earned in connection with loan and deposit services and (4) income earned on loans serviced for investors. Principal expenses for this segment are interest incurred on interest-bearing liabilities, including deposits and borrowings, general and administrative costs and provision for loan losses.

Our Wealth Management segment consists of (i) FRIM; (ii) our money market mutual fund activities through third-party providers and the brokerage activities of FRSC (these two activities collectively, "Brokerage and Investment"); (iii) our insurance services through FRSC and FRIM; (iv) the Trust Company; and (v) our foreign exchange activities. The Wealth Management segment's primary sources of revenue are fees earned for the management or administration of clients' assets, as well as commissions and trading revenues generated from the execution of client-related brokerage and investment activities and fees earned for assisting clients with foreign exchange transactions. In addition, Wealth Management earns fee income from sales of insurance and annuity products to clients and managing the Bank's investment portfolio and earns a deposit earnings credit for client deposit accounts that are maintained at the Bank, including sweep deposit accounts. The Wealth Management segment's principal expenses are personnel-related costs and other general and administrative expenses. For complete segment information, see Note 17 to "Item 1. Financial Statements."

Commercial Banking

Net interest income for Commercial Banking for the quarter and nine months ended September 30, 2019 was \$673.8 million and \$2.0 billion, compared to \$613.7 million and \$1.8 billion for the quarter and nine months ended September 30, 2018, respectively, an increase of 10% for the quarter and an increase of 11% for the nine months primarily due to increases in interest-earning assets.

The provision for loan losses for Commercial Banking for the quarter and nine months ended September 30, 2019 was \$16.7 million and \$52.1 million, compared to \$18.6 million and \$51.0 million for the quarter and nine months ended September 30, 2018, respectively. The provision for loan losses is related primarily to growth in loans outstanding and reflects management's continuing assessment of the credit quality of the Bank's loan portfolio and our overall allowance methodology, which considers, among other things, the Bank's loan growth, level and type of loans originated and current trends in the Bank's markets.

Noninterest income for Commercial Banking was \$27.2 million and \$76.4 million for the quarter and nine months ended September 30, 2019, compared to \$24.4 million and \$84.5 million for the quarter and nine months

ended September 30, 2018, respectively, an increase of 11% for the quarter and a decrease of 10% for the nine months. The increase for the quarter was primarily due to an increase in loan and related fees. The decrease for the nine months was primarily due to a loss on investment securities, while noninterest income for the nine months ended September 30, 2018 included a gain on investment securities from the repositioning of the Bank's investment portfolio.

Noninterest expense for Commercial Banking was \$435.9 million and \$1.3 billion for the quarter and nine months ended September 30, 2019, compared to \$383.4 million and \$1.1 billion for the quarter and nine months ended September 30, 2018, respectively, an increase of 14% for the quarter and an increase of 13% for the nine months. The increases were primarily due to higher salaries and employee benefits, occupancy expenses, investments in information systems and other expenses from the continued investments in the expansion of the franchise. The increases were primarily attributable to the addition of new personnel, higher incentive compensation and other activities that support lending and deposit growth.

Provision for income taxes for Commercial Banking for the quarter and nine months ended September 30, 2019 was \$40.5 million and \$112.5 million, compared to \$43.9 million and \$118.2 million for the quarter and nine months ended September 30, 2018, respectively, a decrease of 8% for the quarter and a decrease of 5% for the nine months. The decreases for the quarter and nine months were the result of higher tax benefits from an increase in stock option exercises by employees, partially offset by higher pre-tax income. In addition, the provision for income taxes varies based on the level of tax-advantaged investments.

Wealth Management

Net interest income for Wealth Management was \$21.2 million and \$66.9 million for the quarter and nine months ended September 30, 2019, compared to \$20.8 million and \$58.4 million for the quarter and nine months ended September 30, 2018, respectively, a slight increase for the quarter and an increase of 15% for the nine months. Net interest income is earned from Wealth Management client deposits with the Bank, for which Wealth Management earns a deposit earnings credit and fees earned for Wealth Management sweep deposit accounts. Net interest income increased primarily as a result of growth in Wealth Management client deposits, including sweep deposit accounts.

Wealth Management client deposits totaled \$9.4 billion and \$8.0 billion at September 30, 2019 and 2018, respectively, including sweep deposits. Wealth Management client deposits, including sweep accounts, averaged \$9.7 billion and \$7.5 billion for the third quarter of 2019 and 2018, respectively, and averaged \$9.7 billion and \$7.3 billion for the nine months ended September 30, 2019 and 2018, respectively. As noted above, Wealth Management is allocated a deposit earnings credit and fees as net interest income, which is included in the Wealth Management results. Annualized net interest income as a percentage of the average deposits generated by Wealth Management represented 0.86% for the third quarter of 2019, compared to 1.10% for the third quarter of 2018, and 0.93% for the nine months ended September 30, 2019, compared to 1.07% for the nine months ended September 30, 2018.

The allocated earnings credit represents only a portion of the total net interest income generated by these deposits for the Bank. The Bank's holistic approach to generating a full relationship with our clients is reflected in the total impact that these Wealth Management deposits have to the Bank's overall net interest income. The Bank's consolidated net interest margin was 2.80% and 2.94% for the third quarter of 2019 and 2018, respectively, and was 2.87% and 2.95% for the nine months ended September 30, 2019 and 2018, respectively. Using this overall net interest margin and the average Wealth Management deposits for each respective period, the Wealth Management deposits, on a consolidated basis, contributed net interest income of \$68.8 million and \$55.7 million for the third quarter of 2019 and 2018, respectively, and \$207.2 million and \$160.4 million for the nine months ended September 30, 2019 and 2018, respectively.

Noninterest income for Wealth Management was \$123.5 million and \$368.4 million for the quarter and nine months ended September 30, 2019, compared to \$118.3 million and \$341.8 million for the quarter and nine months ended September 30, 2018, respectively, an increase of 4% for the quarter and an increase of 8% for the nine months. The increase for the quarter was primarily due to higher brokerage and investments fees and foreign exchange fee income, partially offset by lower investment management fees due to the departure of wealth managers in the second quarter of 2019. The increase for the nine months was primarily due to higher investment management fees, foreign exchange fee income and brokerage and investments fees. Investment management fees increased as a result of an increase in AUM and AUA from the addition of assets from existing and new clients, and the hiring of new wealth managers, who brought in additional clients. Foreign exchange fee income and brokerage and investments fees increased primarily due to volume of activity from both existing and new clients.

Noninterest expense for Wealth Management was \$106.6 million and \$336.4 million for the quarter and nine months ended September 30, 2019, compared to \$108.9 million and \$314.6 million for the quarter and nine months ended September 30, 2018, respectively, a slight decrease for the quarter and an increase of 7% for the nine months. The decrease for the quarter was primarily due to lower salaries and benefits, including incentive compensation, as a result of the departure of wealth managers in the second quarter of 2019. The increase for the nine months was primarily due to higher salaries and benefits, including incentive compensation, as a result of overall growth in our business and the addition of new wealth managers. We continue to expand our client base and capabilities in all markets to grow this segment.

Provision for income taxes for Wealth Management for the quarter and nine months ended September 30, 2019 was \$11.2 million and \$27.7 million, compared to \$8.7 million and \$24.1 million for the quarter and nine months ended September 30, 2018, respectively, an increase of 28% for the quarter and an increase of 15% for the nine months. The increases were primarily the result of higher pre-tax income.

AUM and AUA in the Wealth Management segment, in aggregate, were \$140.2 billion at September 30, 2019, compared to \$131.0 billion a year ago, an increase of 7% driven by net new assets from new and existing clients, and market appreciation. Our Wealth Management strategy is focused on both managing investment portfolios for our clients and keeping custody of such assets in brokerage accounts at FRSC. By providing multiple services, we are able to better develop a full Wealth Management and banking relationship, as well as the ability to gather deposits, including sweep accounts. As described above, client deposits from Wealth Management generate net interest income for the Bank. Certain Wealth Management client assets that are held or managed by different areas within our Wealth Management business generate multiple revenue streams for the Bank. As a result of having these multiple revenue streams from certain client assets, such assets are included in more than one type of Wealth Management asset category in the table below. The following table presents the AUM and AUA by the entities comprising our Wealth Management segment:

(\$ in millions)	Sept	tember 30, 2019	e	June 30, 2019	Μ	Iarch 31, 2019	De	December 31, 2018		tember 30, 2018
First Republic Investment Management	\$	61,204	\$	61,192	\$	66,675	\$	60,591	\$	62,506
Brokerage and investment:										
Brokerage		63,053		61,583		59,391		53,046		54,823
Money market mutual funds		4,402		3,312		2,818		2,358		3,149
Total brokerage and investment		67,455		64,895	_	62,209	_	55,404		57,972
Trust Company:										
Trust		6,366		6,319		5,955		5,350		5,406
Custody		5,210		5,225		5,060		4,868		5,105
Total Trust Company		11,576		11,544		11,015		10,218		10,511
Total AUM and AUA	\$	140,235	\$	137,631	\$	139,899	\$	126,213	\$	130,989

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

	Quarte Septen		Nine Months Ended September 30,					
(\$ in millions)	 2019	2018		2019		2018		
Beginning balance	\$ 137,631	\$ 121,124	\$	126,213	\$	106,961		
Net client flow	309	6,416		(2,605)		18,748		
Market appreciation	 2,295	3,449		16,627		5,280		
Ending balance	\$ 140,235	\$ 130,989	\$	140,235	\$	130,989		

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

	% of AUM					
Investment Type	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018	
Equities	49%	49%	48%	46%	51%	
Fixed income.	30%	29%	33%	33%	31%	
Alternative investments	12%	14%	12%	12%	11%	
Cash and cash equivalents	9%	8%	7%	9%	7%	
Total	100%	100%	100%	100%	100%	

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

	Quarter Ended September 30,		Nine Months Ended September 30,	
-	2019	2018 (1)	2019	2018 ⁽¹⁾
First Republic Investment Management	0.55%	0.58%	0.56%	0.58%
Brokerage and investment:				
Brokerage	0.06%	0.04%	0.05%	0.05%
Money market mutual funds	0.32%	0.36%	0.35%	0.39%
Total brokerage and investment.	0.08%	0.05%	0.06%	0.06%
Trust Company:				
Trust	0.20%	0.19%	0.20%	0.21%
Custody	0.07%	0.09%	0.08%	0.08%
Total Trust Company	0.14%	0.14%	0.15%	0.14%
Total	0.29%	0.32%	0.30%	0.32%

⁽¹⁾ The quarter and nine months ended September 30, 2018 have been revised to exclude insurance fees, to conform to the current period presentation.
Balance Sheet Analysis

Investments

The following table presents the investment portfolio:

(\$ in thousands)	Se	ptember 30, 2019	De	ecember 31, 2018
Available-for-sale:				
Agency residential MBS	\$	420,945	\$	26,095
Other residential MBS		4,429		4,552
Agency commercial MBS		928,282		1,701,021
Securities of U.S. states and political subdivisions—taxable		47,449		47,448
Total	\$	1,401,105	\$	1,779,116
Held-to-maturity:				
U.S. Government-sponsored agency securities	\$	558,459	\$	1,044,912
Agency residential MBS.		2,052,012		1,868,587
Agency commercial MBS		3,377,375		3,375,409
Securities of U.S. states and political subdivisions:				
Tax-exempt municipal securities.		9,637,134		7,952,605
Tax-exempt nonprofit debentures		139,830		142,508
Taxable municipal securities		213,832		52,952
Corporate debt securities		24,080		_
Total	\$	16,002,722	\$	14,436,973
Equity (fair value):				
Mutual funds and marketable equity securities	\$	19,736	\$	18,719

The total combined investment securities portfolio represented 16% of total assets at both September 30, 2019 and December 31, 2018.

The average duration of the available-for-sale portfolio was 3.4 and 1.5 years at September 30, 2019 and December 31, 2018, respectively. The average duration of the held-to-maturity portfolio was 7.7 years at both September 30, 2019 and December 31, 2018.

At September 30, 2019, the tax-exempt and taxable municipal securities had an average credit rating of AA and the portfolio was well-diversified with an average issuer position of approximately \$19.0 million. The tax-exempt nonprofit debentures are securities issued through state and local agencies where we have a banking relationship with nonprofit entities. The debentures are reviewed, approved and monitored by our business banking group, similar to business loans.

Loan Portfolio

The following table presents the recorded investment in the Bank's loan portfolio and allowance for loan losses:

(\$ in millions)	September 30, 2019	December 31, 2018
Single family (1-4 units).	\$ 44,882	\$ 37,955
Home equity lines of credit	2,531	2,543
Multifamily (5+ units)	11,725	10,358
Commercial real estate	7,504	6,677
Single family construction	744	645
Multifamily/commercial construction	1,443	1,577
Total real estate mortgages	68,829	59,755
Business	11,565	10,999
Stock secured	1,611	1,433
Other secured	1,293	1,106
Unsecured.	3,006	2,572
Total other loans	17,475	16,110
Total loans	86,304	75,865
Less:		
Allowance for loan losses.	(485) (439)
Loans, net	85,819	75,426
Loans held for sale	32	99
Total	\$ 85,851	\$ 75,525

The following table presents an analysis of the recorded investment in our loan portfolio at September 30, 2019, by category and major geographic location:

(\$ in millions)	San Francisco Bay Area	New York Metro Area	Los Angeles Area	Boston Area	San Diego Area	Other California Areas	Other	Total	%
Single family (1-4 units) ⁽¹⁾ .	\$ 18,010	\$ 9,593	\$ 7,652	\$ 4,677	\$ 1,334	\$ 408	\$ 3,215	44,889	52%
Home equity lines of credit	1,046	475	455	277	65	14	199	2,531	3%
Multifamily (5+ units) ⁽¹⁾	4,805	2,520	1,990	362	1,111	355	607	11,750	14%
Commercial real estate	3,275	1,528	1,339	311	193	155	703	7,504	9%
Business	4,424	2,594	1,809	736	321	16	1,665	11,565	13%
Construction	539	393	772	77	114	29	263	2,187	3%
Stock and other secured	657	688	402	301	69	24	763	2,904	3%
Unsecured	808	809	645	297	130	46	271	3,006	3%
Total	\$ 33,564	\$ 18,600	\$ 15,064	\$ 7,038	\$ 3,337	\$ 1,047	\$ 7,686	\$ 86,336	100%
% by location at September 30, 2019	39%	22%	17%	8%	4%	1%	9%	100%	
% by location at December 31, 2018	39%	21%	17%	8%	4%	2%	9%	100%	

⁽¹⁾ Includes loans held for sale.

At September 30, 2019 and December 31, 2018, approximately 51% and 50%, respectively, of total loans (based on recorded investment) were secured by real estate properties located in California. Future economic or political conditions, natural disasters or other developments in California could adversely affect the value of real estate secured mortgage loans.

The Bank's loan portfolio includes: (1) adjustable-rate loans tied to Prime, LIBOR, COFI, and other reference rates such as 1-year Constant Maturity Treasury ("CMT"), which are currently adjustable; (2) hybrid-rate loans, for which the initial rate is fixed for a period from one year to as many as ten years, and thereafter the rate becomes adjustable; and (3) fixed-rate loans, for which the interest rate does not change through the life of the loan. The following table presents the recorded investment in our loan portfolio at September 30, 2019, by rate type:

		Adjustable Rate										Hybrid	Fixed	
(\$ in millions)]	Prime	I	LIBOR		COFI	(Other		Total	Řate		Rate	Total
Single family (1-4 units) ⁽¹⁾ .	\$	174	\$	2,226	\$	2,819	\$	190	\$	5,409	\$	33,832	\$ 5,648	\$ 44,889
Home equity lines of credit		2,523		5						2,528			3	2,531
Multifamily (5+ units) ⁽¹⁾		346		385		2,121		132		2,984		5,709	3,057	11,750
Commercial real estate		325		350		449		14		1,138		2,644	3,722	7,504
Business		4,700		1,917		10		1		6,628		388	4,549	11,565
Construction		683		127		_		5		815		15	1,357	2,187
Stock and other secured		643		1,579		_		495		2,717		7	180	2,904
Unsecured		425		44		_		1		470		_	2,536	3,006
Total	\$	9,819	\$	6,633	\$	5,399	\$	838	\$	22,689	\$	42,595	\$ 21,052	\$ 86,336
% by rate type at September 30, 2019		11%		8%		6%		1%		26%		49%	 25%	 100%
% by rate type at December 31, 2018		12%		9%		8%		0%		29%		47%	24%	100%

⁽¹⁾ Includes loans held for sale.

At September 30, 2019, included in the hybrid-rate and fixed-rate loan portfolios are \$3.1 billion, or 4% of the total loan portfolio, that either (1) mature within one year; (2) are within one year of adjusting from the initial fixed-rate period; or (3) are committed for sale.

Many of our loan products determine the amount of interest by reference to certain benchmark rates or indices. The Financial Conduct Authority ("FCA"), which regulates LIBOR, has announced that it will no longer compel banks to submit rates for the calculation of LIBOR after December 31, 2021. In addition, the Federal Home Loan Bank of San Francisco has announced that it will no longer calculate and publish COFI after January 29, 2021. The Bank ceased offering new loans indexed to LIBOR in the first half of 2019 (with some limited exceptions for business loans) and to COFI in the first half of 2018 and the Bank has a transition plan in place with respect to existing loans indexed to LIBOR and COFI. In lieu of LIBOR or COFI, new loan originations are indexed to Prime or a 12 month average of 1-year CMT.

Single Family

Our single family loans include loans that have an initial interest-only period. Subsequent to the initial interest-only period, these loans fully and evenly amortize until maturity. Underwriting standards for all such loans require substantial borrower net worth, substantial post-loan liquidity, excellent credit scores and significant down payments. As part of our underwriting standards, we verify the ability of the borrowers to repay our loans. At September 30, 2019, approximately \$29.9 billion, or 67%, of the unpaid principal balance of our single family loan portfolio, including loans held for sale, fully and evenly amortize until maturity following an initial interest-only period of generally ten years. Such loans were \$25.6 billion, or 68%, of the unpaid principal balance of our single family loan portfolio, at December 31, 2018. At September 30, 2019, loans of this type had a weighted average loan-to-value ratio ("LTV") of approximately 56%, based on appraised value at the time of origination, and had credit scores averaging 762 at origination. At September 30, 2019, interest-only home loans with an LTV at origination of more than 80% comprised less than 1% of the unpaid principal balance of our single family loan portfolio, including loans held for sale.

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

	September 30, 2019								
(\$ in thousands)	Unj	paid Principal Balance	% of Total						
LTV at Origination									
Less than or equal to 60%	\$	23,203,098	51.9%						
Greater than 60% to 70%		14,163,664	31.7%						
Greater than 70% to 80%		6,973,289	15.5%						
Greater than 80%		383,333	0.9%						
Total	\$	44,723,384	100.0%						

We do not originate single family loans with the characteristics generally described as "subprime" or "high cost." Subprime loans are typically made to borrowers with little or no cash reserves and poor or limited credit. Often, subprime loans are underwritten using limited documentation. Over the past two years, the single family loans originated by us had a weighted average credit score of 766, and all of our home loans were underwritten using full documentation.

HELOCs

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

For HELOCs that are in second lien position, the LTVs in the table below are presented on a combined LTV ("CLTV") basis, including the total HELOC commitment and any balance on a first residential mortgage. As of September 30, 2019, approximately 37% of HELOCs are in first lien position, and approximately 47% of HELOCs are in second lien position behind a first residential mortgage originated by us, including loans subsequently sold to investors. The following table presents CLTV information at origination for HELOCs, including both the unpaid principal balance and total commitment:

	September 30, 2019										
(\$ in thousands)	Unp	oaid Principal Balance	(Total Commitment	% of Unpaid Principal Balance						
CLTV at Origination											
Less than or equal to 60%	\$	1,570,866	\$	5,379,772	62.6%						
Greater than 60% to 70%		686,759		1,909,479	27.4%						
Greater than 70% to 80%		247,105		628,341	9.8%						
Greater than 80%		5,520		9,850	0.2%						
Total	\$	2,510,250	\$	7,927,442	100.0%						

Multifamily

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

	Unpaid Principal Balance								
(\$ in thousands)	Se	ptember 30, 2019	ber 30, December 31, 2018						
Multifamily (5+ units) ⁽¹⁾	\$	11,760,203	\$	10,379,260					
Multifamily (5+ units) - interest-only ^{(1), (2)}	\$	5,134,958	\$	4,674,114					

⁽¹⁾ Includes loans held for sale.

⁽²⁾ Excludes lines of credit.

At September 30, 2019, interest-only multifamily loans (excluding lines of credit), including loans held for sale, had a weighted average LTV of 51% based on the appraised value at the time of origination.

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

	S	September 30, 20	19	December 31, 2018					
(\$ in thousands)	Unpaid Principal Balance	Total Commitment	% of Total Multifamily	Unpaid Principal Balance	Total Commitment	% of Total Multifamily			
Multifamily lines of credit (5+ units) - interest-only.	\$ 152,906	\$ 395,701	1.3%	\$ 134,406	\$ 351,320	1.3%			

Commercial Real Estate

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

	Unpaid Principal Balance						
(\$ in thousands)	Sej	otember 30, 2019		cember 31, 2018			
Commercial real estate.	\$	7,521,060	\$	6,689,958			
Commercial real estate - interest-only ⁽¹⁾	\$	2,314,391	\$	1,936,337			

(1) Excludes lines of credit.

At September 30, 2019, interest-only commercial real estate loans (excluding lines of credit) that allow for interest-only payments had a weighted average LTV of 45% based on the appraised value at the time of origination.

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

		Septen	nber 30, 201	9	December 31, 2018					
(\$ in thousands)	Unpaid Principal Balance		Total 1mitment	% of Total Commercial Real Estate	P	Unpaid Principal Balance	Co	Total mmitment	% of Total Commercial Real Estate	
Commercial real estate lines of credit - interest-only	\$ 198,827	\$	450,123	2.6%	\$	120,240	\$	336,237	1.8%	

Business

Business loans provide funding for investment opportunities, bridge capital calls from investors, and meet the working capital cash flow requirements and various other financing needs of our business and non-profit clients. The business loan portfolio is comprised primarily of capital call lines to private equity and venture capital funds, and loans to independent schools and other non-profit organizations, which include social service organizations, the performing arts, museums, historical societies and community foundations. In addition, we provide operating lines of credit and term loans to other business clients to meet their working capital needs. The following table presents the recorded investment and total commitment for business loans by type:

	September 30, 2019), 2019		Decembe	er 31, 2018		
(\$ in thousands)	Record Investn		С	Total Commitment		Recorded Investment		Total ommitment	
Private Equity/Venture Capital Funds	\$	5,794,269	\$	16,830,908	\$	5,116,390	\$	13,425,814	
Schools/Non-profit Organizations		3,450,081		4,273,781		3,356,479		4,107,191	
Investment Firms		256,632		869,026		400,609		894,772	
Real Estate Related Entities.		439,854		876,360		339,278		737,221	
Entertainment Industry		172,468		296,208		333,334		534,223	
Aviation/Marine		390,904		400,465		360,926		367,591	
Professional Service Firms		166,607		424,949		204,718		417,625	
Vineyards/Wine		194,028		256,230		192,402		254,085	
Clubs and Membership Organizations		149,145		228,249		155,921		207,960	
Other		550,875		944,533		538,446		840,704	
Total	\$	11,564,863	\$	25,400,709	\$	10,998,503	\$	21,787,186	

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

	Lines of Credit												
	S	eptember 30, 20	19	Ι	December 31, 201	8							
(\$ in thousands)	Unpaid Principal Balance	Total Commitment	Utilization Percentage	Unpaid Principal Balance	Total Commitment	Utilization Percentage							
Private Equity/Venture Capital Funds	\$ 5,653,574	\$ 16,683,151	33.9%	\$ 5,050,905	\$ 13,357,100	37.8%							
Schools/Non-profit Organizations	275,233	1,096,560	25.1%	359,624	1,107,614	32.5%							
Investment Firms.	91,905	703,962	13.1%	221,658	715,583	31.0%							
Real Estate Related Entities	193,054	628,140	30.7%	146,650	543,066	27.0%							
Entertainment Industry	173,574	295,817	58.7%	326,338	524,610	62.2%							
Aviation/Marine	14,190	23,038	61.6%	5,767	11,760	49.0%							
Professional Service Firms	55,182	313,417	17.6%	86,088	298,832	28.8%							
Vineyards/Wine	60,827	122,691	49.6%	63,088	124,467	50.7%							
Clubs and Membership Organizations	21,104	100,001	21.1%	25,244	77,025	32.8%							
Other	204,966	598,284	34.3%	208,768	508,084	41.1%							
Total	\$ 6,743,609	\$ 20,565,061	32.8%	\$ 6,494,130	\$ 17,268,141	37.6%							

Included within business lines of credit are capital call lines of credit, which are credit facilities that enable private equity and venture capital funds to bridge the timing between funding investments and receiving funds from limited partner capital calls. As of September 30, 2019, the unpaid principal balance and total commitment for capital call lines of credit was \$5.5 billion and \$16.5 billion, respectively, resulting in a utilization rate for these lines of credit of 33.1% at September 30, 2019.

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

	Term Loans						
	Unpaid Prin	cipal Balance					
(\$ in thousands)	September 30, 2019	December 31, 2018					
Private Equity/Venture Capital Funds.	\$ 147,757	\$ 68,714					
Schools/Non-profit Organizations	3,177,221	2,999,577					
Investment Firms.	165,064	179,189					
Real Estate Related Entities	248,220	194,155					
Entertainment Industry	391	9,613					
Aviation/Marine	377,427	355,831					
Professional Service Firms	111,532	118,793					
Vineyards/Wine	133,539	129,618					
Clubs and Membership Organizations	128,248	130,935					
Other	346,249	332,620					
Total	\$ 4,835,648	\$ 4,519,045					

Loan Originations

Our strategy is to originate relationship-based loans. While we emphasize loans secured by single family residences, we also selectively originate multifamily mortgages, commercial real estate mortgages and other loans, including business loans. At September 30, 2019, approximately 30% of our total loans, including loans held for sale, were currently adjustable-rate and reprice with indices or mature within one year. Some single family loans are originated for sale in the secondary market. From the inception of our predecessor institution in mid-1985 through September 30, 2019, we have originated approximately \$257 billion of loans, of which approximately \$35 billion have been sold to investors.

Loan origination volume was \$11.1 billion for the third quarter of 2019, compared to \$7.0 billion for the third quarter of 2018, an increase of 58%, and was \$27.3 billion for the nine months ended September 30, 2019, compared to \$23.7 billion for the nine months ended September 30, 2018, an increase of 15%. The increase for the quarter was due to increases in single family, business, stock and other secured, commercial real estate and construction lending. The increase for the nine months was primarily due to increases in single family and commercial real estate lending, partially offset by a decrease in multifamily lending. The volume and type of loan originations depend on the level of interest rates, the demand for loans in our markets and other economic conditions.

We focus on originating specific loan types in our primary markets. The majority of our mortgage loans are secured by properties located in close proximity to one of our offices. The following table presents loan originations, by product type:

		Quarter Ended September 30,				ths Ended nber 30,		
(\$ in thousands)		2019		2018	2019	2018		
Single family (1-4 units)	\$	4,872,598	\$	2,623,429	\$11,129,819	\$ 8,075,457		
Home equity lines of credit		359,154		399,606	1,067,881	1,162,037		
Multifamily (5+ units)		710,983		781,450	2,113,864	2,464,757		
Commercial real estate		556,151		263,292	1,376,433	880,682		
Construction		549,518		373,842	1,215,536	1,222,884		
Business		2,983,097		1,978,596	7,352,635	7,133,106		
Stock and other secured		662,522		321,020	1,960,146	1,736,016		
Unsecured		438,278		438,278 287,74		287,748	1,068,959	1,034,317
Total loans originated	\$	11,132,301	\$	7,028,983	\$27,285,273	\$ 23,709,256		

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

			Quarter Ended		
LTVs for New Originations	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018
Single family (1-4 units)	58%	60%	59%	59%	59%
Home equity lines of credit ⁽¹⁾	52%	52%	52%	53%	52%
Multifamily (5+ units)	53%	55%	51%	55%	51%
Commercial real estate	45%	48%	38%	51%	51%
Construction	56%	56%	53%	56%	56%

⁽¹⁾ Presented on a CLTV basis, including the first residential mortgage and a second lien, where applicable.

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

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

	Quarter Ended									
Weighted Average Credit Scores	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018					
Single family (1-4 units)	767	767	765	764	766					
Home equity lines of credit	762	766	764	763	768					

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

			Quarter Ended		
Purchase and Refinance Composition	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018
Purchase loans	37%	52%	50%	52%	55%
Refinance loans	63%	48%	50%	48%	45%
Total	100%	100%	100%	100%	100%

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

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

Portfolio LTVs	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018
Single family (1-4 units) ⁽¹⁾	58%	58%	58%	58%	58%
Home equity lines of credit ⁽²⁾	52%	52%	52%	52%	52%
Multifamily (5+ units) ⁽¹⁾	51%	51%	51%	51%	51%
Commercial real estate	47%	48%	48%	48%	48%
Construction	55%	55%	55%	55%	55%

⁽¹⁾ Includes loans held for sale.

⁽²⁾ Presented on a CLTV basis, including the first residential mortgage and a second lien, where applicable.

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

Asset Quality

We place an asset on nonaccrual status when any installment of principal or interest is 90 days or more past due (except for single family loans that are well secured and in the process of collection) or when management determines the ultimate collection of all contractually due principal or interest to be unlikely. Restructured loans for which we grant payment or significant interest rate concessions ("troubled debt restructurings") are placed on nonaccrual status until collectibility improves and a satisfactory payment history is established, generally by the receipt of at least six consecutive timely payments.

Our collection policies are highly focused with respect to both our portfolio loans and loans serviced for others. We have policies requiring rapid notification of delinquency and the prompt initiation of collection actions. Our practice is to attempt to resolve problem assets quickly, including the aggressive pursuit of foreclosure, other workout procedures or the sale of such problem assets as rapidly as possible at prices available in the prevailing market. For certain properties, we may make repairs and engage management companies in order to reach stabilized levels of occupancy prior to asset disposition. We believe our collection and foreclosure procedures comply with all applicable laws and regulations. We currently have a low level of loans in foreclosure and have not needed to suspend any of our foreclosure activities.

September 30, December 31. (\$ in thousands) 2018 2019 Nonaccrual loans: Single family (1-4 units).... \$ 51,986 \$ 23,830 Home equity lines of credit..... 9,526 11,154 Multifamily (5+ units). 2,056 Commercial real estate 266 Single family construction Multifamily/commercial construction. 70,044 Business. 2,936 6,540 Stock secured. Other secured. 808 Unsecured 4.247 Total nonaccrual loans 136,928 46,465 Other real estate owned Total nonperforming assets. \$ 136,928 \$ 46,465 Nonperforming assets to total assets 0.12% 0.05% Restructured accruing loans 14,964 11,514 \$ Accruing loans 90 days or more past due. \$ \$

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

See Note 3 in "Item 1. Financial Statements" for information related to interest income on nonaccrual loans for the quarters ended September 30, 2019 and 2018.

Of the loans on nonaccrual status, \$111.5 million were current at September 30, 2019, compared to \$21.1 million at December 31, 2018. The increase in nonaccrual loans at September 30, 2019 was from one lending relationship totaling \$91.4 million, consisting of single family, home equity lines of credit and non-owner occupied single family construction loans.

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

Allowance for Loan Losses

We establish an allowance for loan losses for the inherent risk of probable losses, based upon established criteria, including the type of loan, loan characteristics, our and the industry's historical loss experience, and economic trends. Our allowance for loan losses is adjusted quarterly to maintain a level estimated by management to be appropriate to provide for losses that can be reasonably anticipated based upon specific conditions at the time. Our allowance for loan losses methodology, including allocation to specific loans and between the loan portfolio categories, requires management's consideration of a number of factors.

We evaluate any allowance for loan losses that would be required on acquired loans, which were recorded at fair value on the acquisition date, by evaluating whether the loans had experienced a deterioration in credit such as a decline in the fair value of the underlying collateral, the worsening of a borrower's financial condition, or a delinquency in payment. If the loan has experienced a credit deterioration, we provide an allowance by comparing any reserve required to the basis in the loans. In addition, we provide for any loan losses associated with new loan originations based upon our assessment of credit losses inherent in the portfolio.

We also maintain a qualitative reserve, which represents the qualitative portion of the allowance for loan losses. This qualitative reserve is determined based on management's assessments of the risks that may lead to a loan loss experience different than our historical loss experience and therefore not reflected in the quantitative model. We use qualitative factors that are intended to address developing external and internal environmental trends and include considerations such as changes in current economic and business conditions, the nature and volume of the Bank's loan portfolio, the existence and effects of credit concentrations, and problem loan trends, along with other external factors, such as competition and the legal and regulatory environment.

The provision for loan losses is related primarily to growth in loans outstanding and reflects management's continuing assessment of the credit quality of the Bank's loan portfolio and our overall allowance methodology, which considers, among other things, the Bank's loan growth, level and type of loans originated and current trends in the Bank's markets.

FIRST REPUBLIC BANK

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following table presents an analysis of our allowance for loan losses, including provisions for loan losses, charge-offs and recoveries:

		At or f Quarter Septem	r E	nded	At or for the Nine Months Ended September 30,			Ended
(\$ in thousands)		2019		2018		2019		2018
Allowance for loan losses:			-					
Balance at beginning of period	\$	473,095	\$	397,377	\$	439,048	\$	365,932
Provision		16,711		18,633		52,111		51,003
Charge-offs:								
Single family (1-4 units)		(961)		_		(992)		
Home equity lines of credit		_		(146)		_		(497)
Multifamily (5+ units)		_		_		_		
Commercial real estate								
Single family construction.								
Multifamily/commercial construction								
Business		(3,329)		(78)		(4,558)		(639)
Stock secured.								
Other secured.								
Unsecured		(331)		(127)		(861)		(430)
Total charge-offs	_	(4,621)	_	(351)	_	(6,411)		(1,566)
Recoveries:			_					
Single family (1-4 units)		35		11		217		17
Home equity lines of credit		25		24		100		85
Multifamily (5+ units)								
Commercial real estate								
Single family construction.								
Multifamily/commercial construction								
Business		17		115		46		239
Stock secured.								
Other secured.								
Unsecured		203		16		354		115
Total recoveries		280	-	166		717		456
Net loan charge-offs		(4,341)	-	(185)		(5,694)		(1,110)
Balance at end of period	\$	485,465	\$	415,825	\$	485,465	\$	415,825
Average total loans for the period	\$	83,951,137	\$	70,745,497	\$	80,024,466	\$ (57,228,279
Total loans at period end	\$	86,304,810	\$	72,328,497	\$	86,304,810	\$ ´	72,328,497
Total nonaccrual loans	\$	136,928	\$	42,578	\$	136,928	\$	42,578
Ratios:								
Net charge-offs to:								
Average total loans (annualized)		0.02%		0.00%		0.01%		0.00%
Allowance for loan losses to:								
Total loans		0.56%		0.57%		0.56%		0.57%
Nonaccrual loans		354.5%		976.6%		354.5%		976.6%

Mortgage Banking Activities

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

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

Quarter Septem						Nine Mon Septen	 	
(\$ in thousands)		2019		2018	2019		2018	
Single family loans originated.	\$	4,872,598	\$	2,623,429	\$ 1	1,129,819	\$ 8,075,457	
Loans sold:								
Flow sales:								
Agency	\$	25,214	\$	15,365	\$	51,426	\$ 37,136	
Non-agency		11,932		76,772		43,266	165,292	
Total flow sales		37,146		92,137		94,692	202,428	
Bulk sales:								
Non-agency		—		—		152,119	773,041	
Total loans sold	\$	37,146	\$	92,137	\$	246,811	\$ 975,469	
Gain on sale of loans:							 	
Amount	\$	122	\$	303	\$	466	\$ 5,037	
Gain as a percentage of loans sold		0.33%		0.33%		0.19%	0.52%	

The level of loan originations, loan sales and gain on loan sales depend upon market conditions and the interest rate environment, as well as our pricing and asset/liability management strategies. The lower level of gain on sale of loans for both the quarter and nine months ended September 30, 2019 compared to the same periods a year ago was primarily the result of the lower volume of loans sold. The decrease for the nine months was also driven by lower margins. The level of future loan originations, loan sales and gain on loan sales will depend on overall credit availability, the interest rate environment, the strength of the general economy, local real estate markets and the housing industry, and conditions in the secondary loan sale market.

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

As of September 30, 2019, the Bank has an obligation to reimburse the Federal Home Loan Mortgage Corporation ("Freddie Mac") for losses up to \$30.2 million, or 12% of the multifamily loans securitized in 2018. As of September 30, 2019, the weighted average LTV of those loans was 56% based on the appraised value at the time of origination. The liability for estimated losses related to this reimbursement obligation was only \$312,000 at September 30, 2019.

FIRST REPUBLIC BANK

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

	At or for the Quarter Ended September 30,			At or 1 Nine Mon Septen	ths	s Ended	
(\$ in thousands)		2019		2018	2019		2018
Loans serviced for others.	\$	10,079,610	\$	11,733,493	\$ 10,079,610	\$	11,733,493
Loan servicing fees, net	\$	2,347	\$	3,151	\$ 9,560	\$	9,856

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

Mortgage loans serviced for investors decreased to \$10.1 billion at September 30, 2019, from \$11.7 billion at September 30, 2018, due to repayments in the servicing portfolio exceeding loan sales over the past twelve months. MSRs are recognized as separate assets on our balance sheet and are reported at the lower of amortized cost or fair value. At September 30, 2019, MSRs were \$45.7 million (45 basis points of loans serviced), compared to \$57.7 million (49 basis points of loans serviced) at September 30, 2018.

Our loan origination policies and consistent underwriting standards have resulted in a low historical loan loss experience on single family loans sold in the secondary market. Since our inception in 1985, we have experienced cumulative net loan losses of only \$9.6 million on single family loans sold. At September 30, 2019, single family loans serviced for investors that are 90 days or more past due were \$5.3 million, or 5 basis points of such loans serviced.

Deposit Gathering

We obtain funds from depositors by offering consumer and business checking, money market and passbook accounts, and term CDs. Our accounts are federally insured by the FDIC up to the maximum limit. At September 30, 2019, our total deposits were \$85.7 billion, an 8% increase from \$79.1 billion at December 31, 2018, as we continued to expand relationships with existing clients and acquire new deposit clients, both business and consumer.

Core deposits, which include checking accounts, money market accounts, savings accounts and CDs (excluding CDs greater than \$250,000 and all brokered deposits), provide a stable source of low cost funding. Core deposits totaled \$77.0 billion and \$72.6 billion at September 30, 2019 and December 31, 2018, respectively, and represented 90% of total deposits at September 30, 2019, compared to 92% at December 31, 2018. At September 30, 2019, total deposits included \$2.6 billion of brokered deposits, an increase from \$1.7 billion at December 31, 2018. At September 30, 2019, brokered deposits primarily consist of brokered CDs.

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

(\$ in thousands)	Se	ptember 30, 2019	De	ecember 31, 2018
Preferred Banking Offices:				
Northern California.	\$	16,225,471	\$	15,485,330
Metropolitan New York		5,146,255		5,088,101
Southern California.		4,049,296		3,666,699
Boston.		1,543,968		1,575,127
Subtotal		26,964,990		25,815,257
Preferred Banking:				
Northern California.		22,816,005		18,761,256
Metropolitan New York		12,321,451		12,144,755
Southern California.		6,803,280		6,171,983
Boston.		7,015,666		8,300,381
Subtotal		48,956,402		45,378,375
Wealth management sweep		5,232,456		4,503,092
Other		4,566,671		3,366,512
Total deposits	\$	85,720,519	\$	79,063,236

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

The following table presents consumer and business deposits:

(\$ in thousands)	September 30, 2019		De	ecember 31, 2018
Consumer deposits:				
Checking	\$	14,085,590	\$	15,342,539
Money market checking		4,484,318		3,776,018
Money market savings and passbooks		5,463,473		6,048,923
CDs		11,869,817		9,636,575
		35,903,198		34,804,055
Business deposits:				
Checking		36,073,129		31,780,639
Money market checking		6,757,887		6,541,418
Money market savings.		4,813,776		4,196,184
CDs		2,172,529		1,740,940
		49,817,321		44,259,181
Total	\$	85,720,519	\$	79,063,236
	_			

We fund a portion of our assets with CDs that have balances greater than \$250,000. At September 30, 2019 and December 31, 2018, our CDs having balances greater than \$250,000 totaled \$6.1 billion and \$4.8 billion, respectively. The following table presents the maturities of our CDs greater than \$250,000:

(\$ in thousands)	Septer	nber 30, 2019
Remaining maturity:		
Three months or less	\$	3,248,453
Over three through six months		1,903,392
Over six through twelve months		538,375
Over twelve months		386,486
Total	\$	6,076,706
Percent of total deposits.		7%

At September 30, 2019 and December 31, 2018, the weighted average contractual rate paid on CDs was 2.17% and 2.05%, respectively, and the weighted average remaining maturity of CDs was 5.1 months and 9.1 months at the same respective period ends. The contractual maturities and weighted average contractual rate of our CDs were as follows:

		September 30, 2019		
(\$ in thousands)		Amount	Rate	
Certificates of deposit maturing in:				
October 1 - December 31, 2019	\$	6,887,330	2.16%	
2020		6,319,370	2.17%	
2021		433,102	2.14%	
2022		152,241	2.18%	
2023		88,554	2.41%	
2024 and thereafter		161,749	2.64%	
Total	\$	14,042,346	2.17%	

Other Funding

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

As of September 30, 2019, we had short-term borrowings of \$775.0 million, which consisted of \$475.0 million in federal funds purchased and \$300.0 million in short-term FHLB advances.

FHLB Advances

FHLB advances may be either adjustable-rate in nature or fixed for a specific term. Our long-term, laddered maturity, fixed-rate FHLB advances as of September 30, 2019 were \$10.9 billion. The weighted average remaining maturity of long-term FHLB advances was 1.2 years at September 30, 2019. The following table presents the contractual maturities and weighted average contractual rate of our long-term FHLB advances:

	September 30, 2019			
(\$ in thousands)		Amount	Rate	
FHLB advances maturing in:				
October 1 - December 31, 2019	\$	1,050,000	1.89%	
2020		3,950,000	2.25%	
2021		5,900,000	2.18%	
Total	\$	10,900,000	2.18%	

Senior Notes and Subordinated Notes

The following table presents the carrying values, coupon rates and maturity dates of the Bank's unsecured, term, fixed-rate senior notes and subordinated notes outstanding as of September 30, 2019. The 2.375% fixed-rate senior notes issued in June 2014 of \$400.0 million matured in the second quarter of 2019, and, therefore, were no longer outstanding as of September 30, 2019.

	September 30, 2019				
(\$ in thousands)	Carrying Value ⁽¹⁾		Rate	Maturity Date	
Senior notes:					
Fixed rate, issued June 2017 Subordinated notes:	\$	497,494	2.500%	June 2022	
Fixed rate, issued August 2016		387,981 389,800	4.375% 4.625%	August 2046 February 2047	

⁽¹⁾ Principal balance, net of unamortized issuance discounts and deferred issuance costs.

Available Borrowing Capacity

Our unused, available borrowing capacity at the FHLB and the Federal Reserve Bank discount window at September 30, 2019 was \$24.1 billion and \$2.3 billion, respectively. This available borrowing capacity is supported by pledged loans at the FHLB and investment securities at the Federal Reserve Bank. See "Item 3. Quantitative and Qualitative Disclosures About Market Risk—Interest Rate Risk Management" for additional information regarding our funding practices.

Liquidity

Liquidity refers to our capacity to meet our cash and collateral obligations and to manage both expected and unexpected cash flows without adversely impacting the operations or financial health of the Bank. Sources of liquidity include both unencumbered assets, such as marketable loans and securities, and traditional forms of funding, such as deposits, borrowings and equity. At September 30, 2019, our investment securities portfolio of \$17.4 billion and cash and cash equivalents of \$2.2 billion collectively comprised 18% of total assets. At September 30, 2019, assets that are considered HQLA, including eligible cash, were \$13.6 billion. HQLA include \$5.7 billion of municipal securities.

At September 30, 2019, we had \$24.1 billion of unused, available borrowing capacity at the FHLB supported by pledged loans. In addition, we had \$2.3 billion of unused, available borrowing capacity at the Federal Reserve Bank discount window collateralized by pledged investment securities. This unused, available borrowing capacity at the FHLB and the Federal Reserve Bank discount window equaled 24% of total assets.

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

During the nine months ended September 30, 2019, our loan originations and purchases, net of repayments, were \$10.9 billion. This activity was primarily funded by a net increase in deposits of \$6.7 billion, a net increase in FHLB advances of \$2.4 billion, and a net increase in federal funds purchased of \$475.0 million. In addition, during the nine months ended September 30, 2019, we issued 2,000,000 shares of common stock in an "at-the-market" offering, which added \$170.6 million to equity. During the nine months ended September 30, 2019, our 2.375% fixed-rate senior notes issued in June 2014 of \$400.0 million were repaid at maturity.

At September 30, 2019, we had \$475.0 million in federal funds purchased and \$300.0 million in short-term FHLB advances outstanding. We generally use these short-term borrowings to fund short-term assets, such as loans that have been committed for sale and floating rate investments, or to bridge temporary funding needs, such as those resulting from client investment activity or seasonal deposit fluctuations.

We primarily sell single family mortgage loans in the secondary market directly to a variety of investors. We originate single family mortgages in part to attract new clients for other banking and wealth management services. Selling mortgages allows us to originate more loans without growing our balance sheet loan portfolio and creating the need for additional funding and capital. All loans sold are performing loans and meet all underwriting standards required by us and the secondary market. We sold \$246.8 million of loans during the nine months ended September 30, 2019.

Capital Resources

The Bank maintains capital levels to satisfy regulatory capital requirements and support asset growth. As described in our 2018 Form 10-K under "Item 1. Business—Supervision and Regulation—Capital Requirements," the Basel III Capital Rules determine the components of regulatory capital and the approach for risk weighting assets.

(\$ in thousands)	September 30, 2019		De	December 31, 2018	
Shareholders' equity	\$	9,431,206	\$	8,677,777	
CET1 capital adjustments and deductions:					
Preferred stock		(940,000)		(940,000)	
Goodwill and other intangible assets, net of deferred taxes.		(247,322)		(260,077)	
Deferred tax assets that arise from net operating loss and tax credit carryforwards, net of deferred tax liabilities		(109,875)		(117,086)	
Accumulated other comprehensive loss (income)		(9,830)		19,383	
CET1 capital	_	8,124,179		7,379,997	
Preferred stock		940,000		940,000	
Additional Tier 1 capital		940,000		940,000	
Tier 1 capital		9,064,179		8,319,997	
Tier 2 capital instruments—subordinated notes ⁽¹⁾		777,781		777,475	
Qualifying allowance for loan losses ⁽²⁾		498,942		452,266	
Tier 2 capital		1,276,723		1,229,741	
Total risk-based capital	\$	10,340,902	\$	9,549,738	

The following table represents the components of our regulatory capital:

⁽¹⁾ Subordinated notes mature in 2046 and 2047.

⁽²⁾ Includes the reserve for unfunded commitments.

At September 30, 2019 and December 31, 2018, the Bank's noncumulative perpetual preferred stock was 10% and 11% of Tier 1 capital, respectively.

During the nine months ended September 30, 2019, we issued 2,000,000 shares of common stock in an "atthe-market" offering, which added \$170.6 million to common equity. In addition, on October 18, 2019, we redeemed all outstanding shares of our 5.50% Noncumulative Perpetual Series D Preferred Stock at an aggregate amount of \$190.0 million plus all accrued and unpaid dividends as of the redemption date.

A "capital conservation buffer" is also required under the Basel III Capital Rules. The capital conservation buffer is designed to absorb losses during periods of economic stress. Banking institutions with a ratio of CET1 to risk-weighted assets above the minimum requirement but below the capital conservation buffer will face constraints on dividends, equity repurchases and compensation based on the amount of the shortfall.

Our capital ratios exceeded all applicable regulatory requirements at September 30, 2019 for wellcapitalized institutions, and our capital conservation buffer exceeded the minimum requirement of 2.5%. The following table presents our capital ratios and regulatory requirements:

	Actual				Regulatory Requirements			
(\$ in thousands)	s	eptember 30, 2019	I	December 31, 2018	Well- Capitalized Ratio	Minimum Capital Ratio	Minimum Capital Conservation Buffer ⁽¹⁾	
Capital Ratios								
Tier 1 leverage ratio (Tier 1 capital to average assets)		8.50%		8.68%	5.00%	4.00%	%	
CET1 capital to risk-weighted assets		9.91%		10.38%	6.50%	4.50%	2.50%	
Tier 1 capital to risk-weighted assets		11.05%		11.70%	8.00%	6.00%	2.50%	
Total capital to risk-weighted assets		12.61%		13.43%	10.00%	8.00%	2.50%	
Regulatory Capital ⁽²⁾								
CET1 capital	\$	8,124,179	\$	7,379,997				
Tier 1 capital		9,064,179	\$	8,319,997				
Total capital	\$	10,340,902	\$	9,549,738				
Assets ⁽²⁾								
Average assets	\$	106,659,003	\$	95,905,266				
Risk-weighted assets	\$	81,994,651	\$	71,116,459				

⁽¹⁾ As of September 30, 2019, our capital conservation buffer was 4.61%, which exceeded the minimum requirement of 2.5% required to be held by banking institutions.

⁽²⁾ As defined by regulatory capital rules.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Interest Rate Risk Management

We seek to measure and manage the potential impact of changes in interest rates on our net interest income and net interest margin, known as interest rate risk. Interest rate risk primarily occurs when interest-earning assets and interest-bearing liabilities mature or reprice at different times, on a different basis or in unequal amounts. The Bank's Board of Directors approves policies and limits governing the management of interest rate risk at least annually. Our Asset Liability Management ("ALM") and Investment Committees further establish risk management guidelines and procedures within the broader policies and limits established by the Bank's Board of Directors. Compliance with these policies and limits is reported to the Bank's Board of Directors on an ongoing basis and decisions on the management of interest rate risk are made as needed. We utilize a variety of interest rate risk management tools to evaluate our interest rate risk.

We manage interest rate risk primarily by originating and retaining adjustable-rate loans and hybrid ARM loans with initial short- or intermediate-term fixed rates and funding these assets with checking and savings accounts, short- and intermediate-term CDs, long-term laddered maturity fixed-rate FHLB advances and unsecured, term, fixed-rate senior notes and subordinated notes. We may also utilize overnight and short-term borrowings to fund certain short-term assets, such as loans that have been committed for sale and floating rate investments, or to bridge temporary funding needs, such as those resulting from client investment activity or seasonal deposit fluctuations. As an active and ongoing part of our ALM strategy, we sell long-term fixed-rate single family mortgage loans into the secondary market through ongoing, or "flow," transactions. We also sell portions of our single family hybrid ARM and fixed-rate loans in bulk loan transactions or securitizations. We sold \$246.8 million of loans during the nine months ended September 30, 2019.

FIRST REPUBLIC BANK QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

In addition to the mix and pricing of interest-earning assets and interest-bearing liabilities, our net interest income and net interest margin may also be affected by factors such as competition, conditions in loan markets, levels of loan sales and repayment rates, levels of cash held on the balance sheet, overall growth of assets and liabilities, general interest rate trends, including movements in interest rates and the shape of the yield curve, level and cost of FHLB advances, market rates of new capital or debt offerings and any nonaccrual loans. Our net interest margin may also be affected by our overall business model or strategy.

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

Balance Sheet Overview

Our net interest income and net interest margin may be affected by the mix of interest-earning assets and interest-bearing liabilities. The Bank has earning assets with reset periods or maturity of less than one year totaling \$28.9 billion, or 27% of total earning assets at September 30, 2019. Of these earning assets, the Bank has loans, including loans held for sale, which are currently adjustable and reprice with indices or mature within one year totaling \$25.8 billion, or 30% of the total loan portfolio at September 30, 2019. The loan portfolio that reprices at least quarterly to market rate indices, such as Prime or LIBOR, totaled \$16.4 billion, or 19% of the total loan portfolio at September 30, 2019. The loan portfolio that either (1) matures within one year; (2) is within one year of adjusting from the initial fixed-rate period; or (3) is committed for sale totaled \$3.1 billion, or 4% of the total loan portfolio at September 30, 2019. In addition, at September 30, 2019, the Bank held \$1.8 billion in cash and \$1.4 billion in investment securities (collectively, 16% of total cash and investment securities), that reprice to market rates at least quarterly or are callable in less than one year.

Total checking deposits were \$50.2 billion, or 59% of total deposits at September 30, 2019. Total checking deposits include both noninterest-bearing checking accounts and interest-bearing checking accounts, which currently pay a nominal rate of 6 basis points, but exclude money market checking accounts. We do not expect the rate paid on interest-bearing checking deposits to fluctuate much with changes in overall interest rates, consistent with our history. The rates paid on money market savings, money market checking and passbook deposit accounts generally move directionally with changes in short-term prevailing interest rates and may be subject to competitive pricing pressure. Money market savings, money market checking and passbook deposit accounts together totaled \$21.5 billion, or 25% of total deposits at September 30, 2019. CDs were \$14.0 billion, or 16% of total deposits and had a weighted average remaining maturity of 5.1 months at September 30, 2019.

We utilize long-term FHLB advances as a source of fixed-rate, term funding to help manage our overall interest rate risk. Such advances totaled \$10.9 billion at September 30, 2019 and had a weighted average remaining maturity of 1.2 years. In addition, the Bank has also issued unsecured, term, fixed-rate senior notes and unsecured, term, fixed-rate subordinated notes. At September 30, 2019, the senior notes had a carrying value of \$497.5 million and mature in June 2022. Also, at September 30, 2019, the subordinated notes had a carrying value of \$777.8 million and mature in August 2046 and February 2047.

Net Interest Income Simulation

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

FIRST REPUBLIC BANK QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

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

Potential changes to our net interest income in hypothetical rising and declining rate scenarios, measured over a two-year period beginning September 30, 2019, are presented in the following table. The projections assume both (a) instantaneous parallel shifts upward of 100 and 200 basis points and instantaneous parallel shifts downward of the yield curve of 100 and 200 basis points occurring immediately ("Shock") and (b) gradual parallel shifts upward and downward of the yield curve in even increments over the first twelve months, followed by rates held constant thereafter ("Ramp"). In downward shifts of the yield curve, interest rates are not modeled to decline lower than 0%.

	Estimated Increase (Decrease) in Net Interest Income				
Change in Market Interest Rates	Twelve Months Ending September 30, 2020	Twelve Months Ending September 30, 2021			
Shock:					
+200 basis points immediately	(2.2)%	2.4 %			
+100 basis points immediately	(0.9)%	1.8 %			
-100 basis points immediately	(1.7)%	(5.7)%			
-200 basis points immediately	(6.5)%	(16.3)%			
Ramp:					
+200 basis points over next 12 months	(1.0)%	0.6 %			
+100 basis points over next 12 months	(0.4)%	0.8 %			
-100 basis points over next 12 months	(0.7)%	(3.7)%			
-200 basis points over next 12 months	(2.5)%	(12.5)%			

As of September 30, 2019, the Bank's short-term net interest income position is relatively neutral, indicating that parallel shifts in interest rates are estimated to be neither materially beneficial, nor materially detrimental to net interest income over the short term. Longer-term net interest income exposure remains mildly asset-sensitive.

With respect to deposit balances, we expect non-interest bearing and interest-bearing checking balances, which exclude money market checking, to migrate from the current level of 59% of total deposits to approximately 55% of total deposits over the two-year horizon, depicting a shift in preference by some account holders towards higher yielding deposit products.

Excluding certificates of deposit, the remaining deposits include money market checking, money market savings and passbook accounts and are assumed to reprice with a modest lag by approximately 71% of short-term interest rate increases or 66% of short-term rate decreases over the two-year period, which is also consistent with our historical experience.

FIRST REPUBLIC BANK QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

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

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

Although we believe we are effectively managing our current exposure to changes in interest rates, we may decide to take further action depending on subsequent interest rate and economic developments, the growth rates and mix of loans and deposits, the future level of loan repayments, purchases of investment securities, and changes in other assets.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

As required by Securities and Exchange Commission rules, we carried out an evaluation of the effectiveness of the design and operation of our "disclosure controls and procedures," as such term is defined in Rule 13a-15(e) under the Exchange Act as of the end of the period covered by this report. Our management, including our chief executive officer and chief financial officer, supervised and participated in the evaluation. Based on that evaluation, our chief executive officer and chief financial officer concluded that our disclosure controls and procedures, as of September 30, 2019, were effective for providing reasonable assurance that information required to be disclosed by us in reports filed or submitted under the Exchange Act was accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There was no significant change in our internal control over financial reporting during the quarter ended September 30, 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings.

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

Item 1A. Risk Factors.

There are risks, many beyond our control, which could cause our results to differ significantly from management's expectations. For a description of these risks, please see the risk factors previously described in Part I, "Item 1A. Risk Factors" in our 2018 Form 10-K. Any of the risks described in our 2018 Form 10-K or in this Quarterly Report on Form 10-Q could, by itself or together with one or more other factors, materially and adversely affect our business, results of operations or financial condition. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially and adversely affect our business, results of operations.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Recent Sales of Unregistered Securities

During the third quarter of 2019, we sold 53,098 shares of common stock to eligible employees under our Employee Stock Purchase Plan for aggregate cash consideration of \$4.2 million. These sales were exempt from registration under the Securities Act of 1933, as amended (the "Securities Act"), pursuant to Section (3)(a)(2) thereof because the sales involved securities issued by a bank.

During the third quarter of 2019, we granted 24,060 restricted stock units, net of forfeitures, that are time vesting. In addition, we granted 14,100 restricted stock units, net of forfeitures, that vest over time, provided certain performance criteria are achieved. These awards were granted to certain employees and had an aggregate grant date fair value of 3.5 million. We did not receive any cash consideration in connection with these grants. These grants were exempt from registration under the Securities Act, pursuant to Section (3)(a)(2) thereof because the grants involved securities issued by a bank.

Purchases of Equity Securities By the Issuer and Affiliated Purchasers

We did not repurchase any of our common stock during the third quarter of 2019 or at any time since our inception on July 1, 2010.

On October 18, 2019 (the "Series D Redemption Date"), we redeemed all outstanding depositary shares, each representing a 1/40th interest in a share of the Bank's 5.50% Noncumulative Perpetual Series D Preferred Stock ("Series D Preferred Stock"). In total, 7,600,000 depositary shares were redeemed at a redemption price of \$25.00 per share, representing an aggregate amount of \$190,000,000 plus all accrued and unpaid dividends as of the Series D Redemption Date. As of the Series D Redemption Date, the Series D Preferred Stock was deemed no longer outstanding, and no further dividends will be declared on the Series D Preferred Stock.

Item 3. Defaults Upon Senior Securities.

Not applicable.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

An Index to Exhibits listing the exhibits filed or furnished with this report is presented prior to the signature page to this Quarterly Report on Form 10-Q and is incorporated herein by reference.

INDEX TO EXHIBITS

<u>Exhibit</u>

No. Description

- 31.1 Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.⁽¹⁾
- 31.2 Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.⁽¹⁾
- 32.1 Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.⁽¹⁾
- 32.2 Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.⁽¹⁾

⁽¹⁾ Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

FIRST REPUBLIC BANK

November 8, 2019

/s/ Michael J. Roffler

Michael J. Roffler Executive Vice President and Chief Financial Officer (Principal Financial Officer)

CERTIFICATION

I, James H. Herbert, II, certify that:

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

Date: November 8, 2019

/s/ James H. Herbert, II

Name: James H. Herbert, II Title: Chairman and Chief Executive Officer

CERTIFICATION

I, Michael J. Roffler, certify that:

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

Date: November 8, 2019

/s/ Michael J. Roffler

Name:Michael J. RofflerTitle:Executive Vice President and
Chief Financial Officer

Certification of Chief Executive Officer Pursuant to §906 of The Sarbanes-Oxley Act of 2002

The undersigned, the Chairman and Chief Executive Officer of First Republic Bank (the "Company"), hereby certifies on the date hereof, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 (the "Form 10-Q"), filed concurrently herewith by the Company, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 8, 2019

/s/ James H. Herbert, II

Name:James H. Herbert, IITitle:Chairman and Chief Executive Officer

Certification of Chief Financial Officer Pursuant to §906 of The Sarbanes-Oxley Act of 2002

The undersigned, the Executive Vice President and Chief Financial Officer of First Republic Bank (the "Company"), hereby certifies on the date hereof, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 (the "Form 10-Q"), filed concurrently herewith by the Company, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 8, 2019

/s/ Michael J. Roffler

Name:Michael J. RofflerTitle:Executive Vice President and
Chief Financial Officer