



Umpqua Holdings Corporation

Dear shareholder,

2019 was an important and successful year for Umpqua Holdings Corporation. Despite a volatile economic climate, we delivered strong growth and financial performance while making great progress implementing our three-year Next Gen strategy to transform the company. Customers continue to need and want to bank differently, and Umpqua is pioneering new ways of meeting that demand – to the benefit of our shareholders, customers, associates and communities.

We developed our Next Gen strategy to modernize all parts of the company, including our customer experience, operations, brand and culture. We're focused on delivering balanced growth through strategic differentiation and proactive collaboration. The company's 2019 growth demonstrates the progress we've made. We increased loans and leases by 4% and deposits by 6% over the previous year. In addition, we increased non-mortgage fee revenue by 4% while maintaining extremely strong credit quality, with a non-performing assets to total assets ratio of just 0.23%. These results demonstrate the strength of our brand and value proposition, which allow us to attract and retain top talent in some of the country's fastest-growing markets.

In addition, we continue to improve our efficiency ratio, which fell from 60.61% to 56.97%. This is also reflected in our return on average common tangible equity, which improved from 14.45% to 14.77%. Management continues to focus on prudent capital stewardship and delivering sustainable shareholder value, as demonstrated by our strong capital position and shareholder returns. Last year, our dividend was \$0.84 per share, representing a payout ratio of 52%.

A critical part of our Next Gen strategy is advancing our human digital banking strategy to create a highly differentiated customer experience that enhances the company's competitive advantage. Mid-year, we successfully rolled out Umpqua Go-To, the industry's first human digital banking platform, in all of our markets, with more than 45,000 customers already enrolled. We're building deeper customer relationships in this new channel and look forward to expanding its reach.

We also continue to invest significantly in the commercial and corporate sides of the business. At nearly \$30 billion in assets, Umpqua is the largest commercial bank headquartered in the Pacific Northwest and is uniquely positioned to help businesses of all sizes navigate economic uncertainty and grow. In 2019, we saw the success of that work, with double-digit growth in our treasury management, international banking and commercial card businesses. We look forward to seeing these results continue as our reputation and influence in these segments grow.

At the center of Umpqua's growth remains our commitment to corporate responsibility. We're focused on integrating our values across the company, leveraging our financial muscle, operational scale and institutional strengths to create value. In 2019, we expanded our focus from youth and education into areas like affordable housing and expanding access to capital for underserved communities that reflect our expertise as the largest bank headquartered in the Pacific Northwest. We also introduced our first-ever Corporate Responsibility Report, which details how we give generously of our time, money and expertise to make a meaningful difference in the financial well-being of our communities while operating as a smart, sustainable business.

Located in dynamic markets, with incredible talent and a highly differentiated brand and customer experience, Umpqua is well positioned both strategically and financially. Our priority remains the same: to invest in high growth areas that will allow us to generate strong, sustained organic growth and returns for our shareholders while continuing to make a difference in the communities we serve.

Umpqua's growth and success last year are the result of the dedication, hard work and expertise of our nearly 4,000 talented associates. Their passion for bringing our values, customer experience and culture to life is second to none. We're inspired by and share their commitment to delivering outstanding results for one another, and for our shareholders, customers and communities.

Thank you for your investment and interest in Umpqua.

Sincerely,

Cort O'Haver
President & CEO

Peggy Fowler
Board Chair

Umpqua Holdings Corporation — Annual Report 2019

This annual report includes forward-looking statements within the meaning of the "Safe Harbor" provisions of the Private Securities Litigation Reform Act of 1995. These statements are subject to risk and uncertainty and actual results could differ materially due to certain risk factors, including those set forth in the attached Form 10-K and our filings with the SEC. You should not place undue reliance on forward-looking statements. We make forward-looking statements about corporate initiatives, growth and new products and services.

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

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

For the fiscal year ended: December 31, 2019

OR

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

for the transition period from _____ to _____.

Commission file number: 001-34624

Umpqua Holdings Corporation

(Exact name of registrant as specified in its charter)

Oregon

(State or other jurisdiction

of incorporation or organization)

93-1261319

(I.R.S. Employer Identification No.)

of incorporation or organization)

One SW Columbia Street, Suite 1200

Portland, Oregon 97258

(Address of Principal Executive Offices)(Zip Code)

(503) 727-4100

(Registrant's telephone number, including area code)

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

TITLE OF EACH CLASS

TRADING SYMBOL

NAME OF EXCHANGE

Common Stock

UMPQ

The NASDAQ Global Select Market

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports); and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

The aggregate market value of the voting common stock held by non-affiliates of the registrant as of June 30, 2019, based on the closing price on that date of \$16.59 per share, and 218,859,152 shares held was \$3,630,873,332.

The registrant had outstanding 220,268,734 shares of common stock as of January 31, 2020.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the 2020 Annual Meeting of Shareholders of Umpqua Holdings Corporation ("Proxy Statement") are incorporated by reference in this Form 10-K in response to Part III, Items 10, 11, 12, 13 and 14.

UMPQUA HOLDINGS CORPORATION
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PART I

ITEM 1. BUSINESS.

In this Annual Report on Form 10-K, we refer to Umpqua Holdings Corporation as the "Company," "Umpqua," "we," "us," "our," or similar references.

This Annual Report on Form 10-K contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, which are intended to be covered by the safe harbor for "forward-looking statements" provided by the Private Securities Litigation Reform Act of 1995. These statements may include statements that expressly or implicitly predict future results, performance or events. Statements other than statements of historical fact are forward-looking statements. You can find many of these statements by looking for words such as "anticipates," "expects," "believes," "estimates," "intends" and "forecast" and words or phrases of similar meaning. We make forward-looking statements regarding projected sources of funds; the Company's liquidity position, Next Gen initiatives; investments in data, analytics, technology, training, and marketing; our securities portfolio; loan sales; adequacy of our allowance for loan and lease losses and reserve for unfunded commitments; provision for loan and lease losses; impaired loans and future losses; performance of troubled debt restructurings; our commercial real estate portfolio, its collectability and subsequent charge-offs; resolution of non-accrual loans; litigation; dividends; junior subordinated debentures; fair values of certain assets and liabilities, including mortgage servicing rights values and sensitivity analyses; store consolidations; tax rates; the effect of accounting pronouncements; and the effect of changes in accounting methodology. Forward-looking statements involve substantial risks and uncertainties, many of which are difficult to predict and are generally beyond our control. There are many factors that could cause actual results to differ materially from those contemplated by these forward-looking statements. Risks and uncertainties include those set forth in our filings with the Securities and Exchange Commission (the "SEC") and the following factors that might cause actual results to differ materially from those presented:

- our ability to successfully implement and sustain information technology, product and system enhancements and operational initiatives;*
- our ability to attract new deposits and loans and leases;*
- our ability to retain deposits, especially during store consolidations;*
- demand for financial services in our market areas;*
- competitive market pricing factors;*
- our ability to effectively develop and implement new technology;*
- deterioration in economic conditions that could result in increased loan and lease losses, especially those risks associated with concentrations in real estate related loans;*
- market interest rate volatility;*
- prolonged low interest rate environments;*
- compression of our net interest margin;*
- stability and cost of funding sources;*
- continued availability of borrowings and other funding sources such as brokered and public deposits;*
- changes in legal or regulatory requirements or the results of regulatory examinations that could increase expenses or restrict growth;*
- our ability to recruit and retain key management and staff;*
- availability of, and competition for, acquisition opportunities;*
- significant decline in the market value of the Company that could result in an impairment of goodwill;*
- our ability to raise capital or incur debt on reasonable terms;*
- regulatory limits on the Bank's ability to pay dividends to the Company;*
- financial services reform and the impact of legislation and implementing regulations on our business operations, including our compliance costs, interest expense, and revenue;*

- a breach or failure of our operational or security systems, or those of our third-party vendors, including as a result of cyberattacks; and
- competition, including from financial technology companies.

For a more detailed discussion of some of the risk factors, see the section entitled "Risk Factors" below. We do not intend to update any factors, except as required by SEC rules, or to publicly announce revisions to any of our forward-looking statements. Any forward-looking statement speaks only as of the date that such statement was made. You should consider any forward-looking statements in light of this explanation, and we caution you about relying on forward-looking statements.

Introduction

Umpqua Holdings Corporation, an Oregon corporation, was formed as a bank holding company in March 1999. At that time, we acquired 100% of the outstanding shares of South Umpqua Bank, an Oregon state-chartered bank formed in 1953. We became a financial holding company in March 2000 under the provisions of the Gramm-Leach-Bliley Act of 1999 ("GLB Act"). Umpqua has two principal operating subsidiaries, Umpqua Bank (the "Bank") and Umpqua Investments, Inc. ("Umpqua Investments"). The Bank's wholly-owned subsidiary, Financial Pacific Leasing, Inc. ("FinPac"), is a commercial equipment leasing company.

We electronically file annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy and information statements and other information with the SEC. You may obtain these reports and statements, and any amendments, from the SEC's website at www.sec.gov. You may obtain copies of these reports, and any amendments, through the investor relations section of our website at www.umpquabank.com. These reports are available through our website as soon as reasonably practicable after they are filed electronically with the SEC.

General Background

Headquartered in Roseburg, Oregon, Umpqua Bank is considered one of the most innovative community banks in the United States, recognized nationally and internationally for its unique company culture and customer experience strategy, which we believe differentiates the Company from its competition. The Bank provides a broad range of banking, wealth management, mortgage and other financial services to corporate, institutional, and individual customers.

Umpqua Investments is a registered broker-dealer and registered investment advisor with offices in Oregon, Washington, and California, and also offers products and services through select Umpqua Bank stores. The firm is one of the oldest investment companies in the Northwest. Umpqua Investments offers a full range of investment products and services including: stocks, fixed income securities (municipal, corporate, and government bonds, CDs, and money market instruments), mutual funds, annuities, options, retirement planning, advisory account services, goals-based planning and insurance.

Along with its subsidiaries, the Company is subject to the regulations of state and federal agencies and undergoes regular examinations by these regulatory agencies.

Business Strategy

Umpqua Bank's primary objective is to become the leading community-oriented financial services organization throughout the Western United States. We intend to increase market share, grow our assets and increase profitability and total shareholder return by differentiating ourselves from competitors through the following strategies:

Deliver on Corporate Strategic Objectives. The Company's 3-year (2018-2020) corporate strategic objectives branded as "Umpqua Next Gen" is designed to modernize the company, diversify and increase revenue, optimize processes and improve efficiency. Umpqua Next Gen builds on the customer-centric approach to banking, allowing us to differentiate ourselves in the marketplace and create a competitive advantage. The three pillars of Umpqua Next Gen include: Balanced Growth, Human Digital, and Operational Excellence.

Through Our Balanced Growth Initiatives, We Focus on Banking Full Relationships. The Company has invested in broader product suites to meet the needs of customers across the spectrum of our business lines. We believe that Umpqua has the products and associate expertise necessary to support current and prospective customers. We believe we can bring the highest value to customers when internal lines of business work collaboratively together to serve customers and exceed expectations. The importance of Balanced Growth initiatives has been embedded in modernizing our internal referral plans, balanced goals across product categories for associates, and external communications with the investment community.

Use A Human Digital Banking Approach to Retain and Expand Customer Base. As consumer preferences evolve with technological changes, our strategy remains consistent: deliver an extraordinary experience across all customer touchpoints. As a result, we have developed our Human Digital banking approach, which uses technology to empower deeper, even more meaningful relationships with our customers. We believe this differentiates Umpqua and positions the Company well to adapt quickly as customer use of physical and digital channels evolves. Our innovative store concept remains a differentiator in this Human Digital approach as the combination of personal and digital banking services, through platforms like Umpqua Go-To in combination with our store network enhances our ability to attract a broader range of customers and expand our value proposition across all channels.

Become A More Efficient and Effective Company Through Operational Excellence Programs. The objectives of the operational excellence programs are to reduce redundancies, simplify processes, and ultimately bring associates closer to the customer. Umpqua has redesigned several key processes, including our commercial loan delivery and our deposit origination processes since the beginning of Umpqua Next Gen. In addition to combining similar functions throughout the Company, we have also simplified our supplier and vendor relationships by consolidating spend to key strategic partners.

Establish Strong Brand Awareness. As a financial services provider, we devote considerable resources to developing the "Umpqua Bank" brand. This is done through design strategy, marketing, merchandising, and delivery through our customer-facing channels, as well as through active public relations, social media and community-based events and initiatives. From Bank-branded bags of custom roasted coffee beans to educational seminars, in-store events and social giving campaigns, Umpqua's goal is to connect with our customers and communities in fresh and engaging ways. The unique look and feel of our stores and interactive displays help demonstrate our commitment to being an innovative, customer-friendly provider of financial products and services, and our active community engagement and investments stand out with commercial customers. Our brand activation approach is based on actions, not just advertising, and builds strong consumer awareness of our products and services.

Prudently Manage Capital. An important part of our strategy is to continue to manage capital prudently, and to employ excess capital in a thoughtful and opportunistic manner that improves shareholder returns and minimizes risk to capital. We accomplish this through organic growth, a 52% dividend payout ratio in 2019, and nominal share repurchases designed to counter dilution from equity awards. We also opportunistically pursue strategic acquisitions, which could include technology-driven enterprises or banks and financial services companies in markets or lines of business where we see growth potential.

Growth Culture. We believe strongly that by investing in the growth of our associates, customers and communities, we will create more opportunity to provide our products and services and to create deeper customer relationships across all divisions, from retail to mortgage and wholesale. Although a successful marketing program will attract customers to visit, well-trained associates are critical to solving customer needs with the right products and services. Umpqua's culture has become well established throughout the organization due to a clear focus and ongoing training of our associates on all aspects of sales and service. We provide training through our in-house training to recognize and celebrate associates who demonstrate an exceptional commitment to our customers and deliver smart financial solutions our customers value. This service culture has become iconic in our industry, and is a key element in our ability to attract both talented associates and loyal customers.

Products and Services

We offer an array of traditional and digital financial products to meet the banking needs of our market area and target customers. To ensure the ongoing viability of our product offerings, we regularly examine the desirability and profitability of existing and potential new products. Other avenues through which customers can access our products include our Go-To app and redesigned web site.

Commercial Loans and Leases and Commercial Real Estate Loans. We offer specialized loans for corporate and commercial customers, including accounts receivable and inventory financing, multifamily loans, equipment loans, commercial equipment leases, international trade, real estate construction loans and permanent financing and Small Business Administration ("SBA") program financing as well as capital markets and treasury management services. Additionally, we offer specially designed loan products for small businesses through our Small Business Division, and have a business banking division to increase lending to small and mid-sized businesses.

Ongoing credit management activities continue to focus on commercial real estate loans given this is a significant portion of our loan portfolio. We are also engaged in initiatives that continue to diversify the loan portfolio including a strong focus on commercial and industrial loans in addition to financing owner-occupied properties.

Treasury Management. Umpqua offers non-loan related products and services to its commercial customers. These products include ACH, wires, positive pay, remote deposit capture, integrated payables, and foreign exchange related products. We also offer commercial card and merchant services.

Deposit Products. We offer deposit products, including non-interest bearing checking accounts, interest bearing checking and savings accounts, money market accounts and certificates of deposit. Interest-bearing accounts earn interest at rates established by management based on competitive market factors and management's desire to increase certain types or maturities of deposit liabilities. Our approach is to provide a streamlined customer experience that meets the customer's needs across all channels. This approach is designed to add value for the customer, increase products per household and generate related fee income.

Private Bank. Umpqua Private Bank serves high net worth individuals and families, and select non-profits and professional services firms, providing deposit, lending, and financial planning solutions. The private bank is designed to expand on Umpqua's existing high-touch customer experience, and works collaboratively with the Bank's affiliate Umpqua Investments to offer a comprehensive, integrated approach designed to meet clients' financial needs, including financial planning, trust services, risk management, and investments.

Wealth Management. In its combined role as a broker/dealer and a registered investment advisor, Umpqua Investments may provide comprehensive financial planning advice to its clients as well as investment services. This advice can include cash management, risk management (insurance planning/sales), investment planning (including investment advice and/or portfolio checkups), retirement planning (for employees and employers), or estate planning. The broker/dealer side of Umpqua Investments offers a full range of brokerage services including equity and fixed income products, mutual funds, annuities, options and life insurance products. At December 31, 2019, Umpqua Investments had 54 licensed financial professionals serving clients at stand-alone retail brokerage offices, as well as "Investment Opportunity Centers" located in select Bank stores and Private Bank locations.

Residential Real Estate Loans. Real estate loans are available for the construction, purchase, and refinancing of residential owner-occupied and rental properties. Borrowers can choose from a variety of fixed and adjustable rate options and terms. We sell most residential real estate loans that we originate into the secondary market. Servicing is retained on the majority of these loans.

Consumer Loans. We provide loans to individual borrowers for a variety of purposes, including secured and unsecured personal loans, home equity and personal lines of credit and motor vehicle loans.

Market Area and Competition

The geographic markets we serve are highly competitive for deposits, loans, leases and retail brokerage services. We compete with traditional banking institutions, as well as non-bank financial service providers, such as credit unions, brokerage firms and mortgage companies. In our primary market areas of Oregon, Washington, California, Idaho, and Nevada, major national banks generally hold top market share positions. Competition also includes small community banks that operate in a concentrated area within our footprint and other regional banks that focus on commercial and retail banking.

As the industry becomes increasingly oriented toward technology-driven delivery systems, permitting transactions to be conducted on mobile devices and computers, non-bank institutions are able to attract customers and provide lending and other financial services even without offices located in our primary service area. Some insurance companies and brokerage firms compete for deposits by offering rates that are higher than the weighted average market price and may be inappropriate for the Bank in relation to its asset and liability management objectives. We also compete with full service investment firms for non-bank financial products and services offered by Umpqua Investments.

Credit unions present a significant competitive challenge for our banking services and products. As credit unions currently enjoy an exemption from income tax, they are able to offer higher deposit rates and lower loan rates than banks can on a comparable basis. Credit unions are also not currently subject to certain regulatory constraints, such as the Community Reinvestment Act ("CRA"), which, among other things, requires us to implement procedures to make and monitor loans throughout the communities we serve. Adhering to such regulatory requirements raises the costs associated with our lending activities, and reduces potential operating profits. Accordingly, we seek to compete by focusing on building customer relationships, providing superior service and offering a wide variety of commercial banking products.

The following tables present the Bank's market share percentage for total deposits as of June 30, 2019, in each county where we have operations. The table also indicates the ranking by deposit size in each market. All information in the table was obtained from S&P Global, which compiles deposit data published by the Federal Deposit Insurance Corporation ("FDIC") as of June 30, 2019 and updates the information for any bank mergers and acquisitions completed subsequent to the reporting date.

Oregon				Washington			
County	Market Share	Market Rank	Number of Stores	County	Market Share	Market Rank	Number of Stores
Baker	30.9 %	1	1	Adams	20.9 %	3	2
Benton	8.7 %	6	2	Asotin	18.6 %	3	1
Clackamas	3.1 %	7	3	Benton	5.7 %	8	2
Columbia	17.3 %	3	1	Clallam	5.1 %	7	2
Coos	39.4 %	1	5	Clark	15.8 %	2	8
Curry	46.9 %	1	2	Douglas	20.3 %	2	1
Deschutes	8.6 %	6	4	Franklin	12.3 %	3	1
Douglas	66.2 %	1	8	Grant	8.7 %	6	2
Grant	23.8 %	3	1	Grays Harbor	8.2 %	4	1
Harney	25.4 %	2	1	King	1.6 %	12	20
Jackson	17.5 %	1	7	Kitsap	0.8 %	15	1
Josephine	18.5 %	2	3	Kittitas	13.4 %	4	2
Klamath	31.9 %	1	3	Klickitat	35.9 %	1	2
Lake	32.0 %	2	1	Lewis	13.4 %	3	1
Lane	19.0 %	1	6	Okanogan	22.4 %	2	2
Lincoln	8.1 %	6	1	Pierce	3.4 %	8	8
Linn	14.7 %	4	3	Skamania	66.3 %	1	1
Malheur	20.5 %	2	3	Snohomish	1.1 %	19	1
Marion	6.4 %	7	3	Spokane	20.7 %	2	8
Multnomah	4.8 %	6	12	Thurston	3.2 %	10	3
Polk	7.1 %	5	1	Walla Walla	3.9 %	5	1
Tillamook	29.7 %	2	1	Whatcom	3.5 %	11	3
Umatilla	5.5 %	6	2	Whitman	5.9 %	6	1
Union	23.1 %	1	2				
Wallowa	25.1 %	2	1				
Washington	6.5 %	6	6				
Yamhill	2.2 %	9	1				

California				Idaho			
County	Market Share	Market Rank	Number of Stores	County	Market Share	Market Rank	Number of Stores
Amador	4.7 %	7	1	Ada	0.4 %	17	2
Butte	2.2 %	10	1	Benewah	21.8 %	3	1
Calaveras	27.2 %	2	3	Idaho	42.8 %	1	1
Colusa	39.9 %	1	2	Kootenai	2.5 %	8	2
Contra Costa	0.4 %	17	3	Latah	25.5 %	2	2
El Dorado	5.8 %	6	3	Nez Perce	18.1 %	3	1
Glenn	28.2 %	2	2	Valley	28.2 %	3	2
Humboldt	27.3 %	1	5				
Lake	22.1 %	2	2				
Los Angeles	0.2 %	41	2				
Marin	1.8 %	12	2				
Mendocino	4.4 %	6	1				
Napa	8.0 %	4	4				
Orange	0.1 %	50	1				
Placer	4.2 %	6	5				
Sacramento	0.7 %	17	5				
San Diego	0.3 %	25	2				
San Francisco	0.3 %	14	3				
San Joaquin	0.5 %	17	1				
San Luis Obispo	0.6 %	12	1				
Santa Clara	0.1 %	34	1				
Shasta	2.2 %	8	1				
Solano	3.3 %	8	3				
Sonoma	3.7 %	10	7				
Stanislaus	0.9 %	15	1				
Sutter	10.3 %	5	2				
Tehama	15.9 %	1	2				
Trinity	35.4 %	2	1				
Tuolumne	13.7 %	4	1				
Ventura	0.3 %	18	1				
Yolo	2.6 %	10	1				
Yuba	23.7 %	3	2				

Nevada

Washoe	3.6 %	7	4
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Lending and Credit Functions

The Bank makes both secured and unsecured loans to individuals and businesses. At December 31, 2019, commercial real estate, commercial, residential, and consumer and other represented approximately 49.2%, 23.2%, 25.7%, and 1.9%, respectively, of the total loan and lease portfolio.

Inter-agency guidelines adopted by federal bank regulators mandate that financial institutions establish real estate lending policies with maximum allowable real estate loan-to-value limits, subject to an allowable amount of non-conforming loans as a percentage of capital. We have adopted as loan policy loan-to-value limits that range from 5% to 10% less than the federal guidelines for each category; however, policy exceptions are permitted for real estate loan customers with strong financial credentials.

Loans and Leases

We manage asset quality and control credit risk through diversification of the loan and lease portfolio and the application of policies designed to promote sound underwriting and loan and lease monitoring practices. The Bank's Credit Quality Group is charged with monitoring asset quality, establishing credit policies and procedures and enforcing the consistent application of these policies and procedures across the Bank. The provision for loan and lease losses charged to earnings is based upon management's judgment of the amount necessary to maintain the allowance at a level adequate to absorb probable incurred losses. The amount of provision charged is dependent upon many factors, including loan and lease growth, net charge-offs, changes in the composition of the loan and lease portfolio, delinquencies, management's assessment of loan and lease portfolio quality, general economic conditions that can impact the value of collateral, and other trends. The evaluation of these factors is performed through an analysis of the adequacy of the allowance for loan and lease losses. Reviews of non-performing, past due loans and leases and larger credits, designed to identify potential charges to the allowance for loan and lease losses, and to determine the adequacy of the allowance, are conducted on a quarterly basis. These reviews consider such factors as the financial strength of borrowers, the value of the applicable collateral, loan and lease loss experience, estimated loan and lease losses, growth in the loan and lease portfolio, prevailing economic conditions and other factors.

Employees

As of December 31, 2019, we had a total of 3,943 full-time equivalent employees. None of the employees are subject to a collective bargaining agreement and management believes its relations with employees to be good.

Information about our Executive Officers

Information regarding employment agreements with our executive officers is contained in Item 11 below, which item is incorporated by reference to our proxy statement for the 2020 annual meeting of shareholders.

Government Policies

The operations of the Company and our subsidiaries are affected by state and federal legislative and regulatory changes and by policies of various regulatory authorities, including, domestic monetary policies of the Board of Governors of the Federal Reserve System ("Federal Reserve"), United States fiscal policy, and capital adequacy and liquidity constraints imposed by federal and state regulatory agencies.

Supervision and Regulation

General. We are extensively regulated under federal and state law. These laws and regulations are generally intended to protect depositors and customers, not shareholders. To the extent that the following information describes statutory or regulatory provisions, it is qualified in its entirety by reference to the particular statute or regulation. Any change in applicable laws or regulations may have a material effect on our business and prospects. We cannot accurately predict the nature or the extent of the effects on our business and earnings that fiscal or monetary policies, or new federal or state legislation or regulation may have in the future. Umpqua is subject to the disclosure and other requirements of the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended, and rules promulgated thereunder and administered by the Securities and Exchange Commission. As a listed company on NASDAQ, Umpqua is subject to NASDAQ rules for listed companies.

The Federal Reserve and the FDIC have adopted non-capital safety and soundness standards for financial institutions. These standards cover internal controls, information and internal audit systems, loan documentation, credit underwriting, interest rate exposure, asset growth, compensation, fees and benefits, and standards for asset quality, earnings and stock valuation. An institution that fails to meet these standards must develop a plan acceptable to the agency, specifying the steps that it will take to meet the standards. Failure to submit or implement such a plan may subject the institution to regulatory sanctions.

Holding Company Regulation. We are a bank holding company registered as a financial holding company under the GLB Act, and are subject to the supervision of, and regulation by the Federal Reserve. As a bank holding company, we are examined by and file reports with the Federal Reserve. The Federal Reserve expects a bank holding company to serve as a source of financial and managerial strength to its subsidiary bank and, under appropriate circumstances, to commit resources to support the subsidiary bank.

Financial holding companies are bank holding companies that satisfy certain criteria and are permitted to engage in activities that traditional bank holding companies are not. The qualifications and permitted activities of financial holdings companies are described below under "Regulatory Structure of the Financial Services Industry."

Federal and State Bank Regulation. Umpqua Bank, as a state chartered bank with deposits insured by the FDIC, is primarily subject to the supervision and regulation of the Oregon Department of Consumer and Business Services Division of Financial Regulation ("DCBS"), the Washington Department of Financial Institutions, the California Department of Business Oversight, the Idaho Department of Finance Banking Section, the Nevada Division of Financial Institutions, the FDIC and the Consumer Financial Protection Bureau ("CFPB"). Our primary state regulator, DCBS, regularly examines the Bank or participates in joint examinations with the FDIC. These agencies may prohibit the Bank from engaging in what they believe constitute unsafe or unsound banking practices.

Community Reinvestment Act and Fair Lending Laws. Umpqua Bank has a responsibility under the CRA, as implemented by FDIC regulations, to help meet the credit needs of its communities, including low and moderate-income neighborhoods. The CRA does not establish specific lending requirements or programs for financial institutions nor does it limit an institution's discretion to develop the types of products and services that it believes are best suited to its particular community, consistent with the CRA. In connection with its examination, the FDIC assesses Umpqua Bank's record of compliance with the CRA. In addition, the Equal Credit Opportunity Act and the Fair Housing Act prohibit discrimination in lending practices on the basis of characteristics specified in those statutes. These factors are also considered in evaluating mergers, acquisitions and applications to open a branch or new facility. Umpqua Bank's failure to comply with the provisions of the CRA could, at a minimum, result in regulatory restrictions on its activities and the activities of Umpqua potentially resulting in the suspension of any growth of the Bank through acquisitions or opening de novo branches until the rating is improved. Umpqua Bank's failure to comply with the Equal Credit Opportunity Act and the Fair Housing Act could result in enforcement actions against it by the FDIC, as well as other federal regulatory agencies, including the CFPB and the Department of Justice. As of the most recent CRA examination, the Bank's CRA rating was "Satisfactory".

Transactions with Affiliates and Insiders. Banks are also subject to certain restrictions imposed by the Federal Reserve Act on extensions of credit to executive officers, directors, principal shareholders or any related interest of such persons. Extensions of credit must be made on substantially the same terms, including interest rates and collateral, and follow credit underwriting procedures that are not less stringent than, those prevailing at the time for comparable transactions with persons not affiliated with the bank, and must not involve more than the normal risk of repayment or present other unfavorable features. Banks are also subject to certain lending limits and restrictions on overdrafts to such persons. A violation of these restrictions may result in the assessment of substantial civil monetary penalties on the affected bank or any officer, director, employee, agent or other person participating in the conduct of the affairs of that bank, the imposition of a cease and desist order, and other regulatory sanctions.

The Federal Reserve Act and related Regulation W limit the amount of certain loan and investment transactions between the Bank and its affiliates, require certain levels of collateral for such loans, and limit the amount of advances to third parties that may be collateralized by the securities of Umpqua or its subsidiaries. Regulation W requires that certain transactions between the Bank and its affiliates be on terms substantially the same, or at least as favorable to the Bank, as those prevailing at the time for comparable transactions with or involving nonaffiliated companies or, in the absence of comparable transactions, on terms and under circumstances, including credit standards, that in good faith would be offered to or would apply to nonaffiliated companies. Umpqua and its subsidiaries have adopted an Affiliate Transactions Policy and have entered into various affiliate agreements in compliance with Regulation W.

Privacy. Federal and state laws designed to protect individual privacy limit the ability of banks and other financial institutions to disclose non-public information about consumers to affiliated companies and non-affiliated third parties, and impose other obligations on personal information. These rules require disclosure of privacy policies to clients and, in some circumstances, allow consumers to prevent disclosure of certain personal information to affiliates or non-affiliated third parties by means of opt out or opt in authorizations. Pursuant to the Gramm-Leach-Bliley Act and certain state laws, companies are required to notify clients of security breaches resulting in unauthorized access to their personal information. In connection with the regulations governing the privacy of consumer financial information, the federal banking agencies have also adopted guidelines for establishing information security standards and programs to protect such information.

Federal Deposit Insurance. Substantially all deposits with Umpqua Bank are insured up to applicable limits by the Deposit Insurance Fund ("DIF") of the FDIC and are subject to deposit insurance assessments to maintain the DIF. The standard maximum federal deposit insurance amount is \$250,000 per qualified account.

The FDIC may terminate the deposit insurance of any insured depository institution if it determines that the institution has engaged in or is engaging in unsafe and unsound banking practices, is in an unsafe or unsound condition or has violated any applicable law, regulation or order or any condition imposed in writing by, or pursuant to, any written agreement with the FDIC. The termination of deposit insurance for the Bank would have a material adverse effect on our financial condition and results of operations.

Dividends. Under the Oregon Bank Act and the Federal Deposit Insurance Corporation Improvement Act of 1991 ("FDICIA"), the Bank is subject to restrictions on the payment of cash dividends to its parent company. A bank may not pay cash dividends if that payment would reduce the amount of its capital below that necessary to meet minimum applicable regulatory capital requirements. In addition, under the Oregon Bank Act, the amount of the dividend paid by the Bank may not be greater than net unreserved retained earnings, after first deducting to the extent not already charged against earnings or reflected in a reserve, all bad debts, which are debts on which interest is unpaid and past due at least six months unless the debt is fully secured and in the process of collection; all other assets charged-off as required by Oregon bank regulators or a state or federal examiner; and all accrued expenses, interest and taxes of the Bank. In addition, state and federal regulatory authorities are authorized to prohibit banks and holding companies from paying dividends that would constitute an unsafe or unsound banking practice. The Federal Reserve has issued a policy statement on the payment of cash dividends by bank holding companies, which expresses the Federal Reserve's view that a bank holding company should pay cash dividends only to the extent that its net income for the past year is sufficient to cover both the cash dividends and a rate of earnings retention that is consistent with the holding company's capital needs, asset quality, and overall financial condition.

Capital Adequacy. The federal and state bank regulatory agencies use capital adequacy guidelines in their examination and regulation of holding companies and banks. If capital falls below the minimum levels established by these guidelines, a holding company or a bank may be denied approval to acquire or establish additional banks or non-bank businesses or to open new facilities.

The FDIC and Federal Reserve have adopted risk-based capital guidelines for holding companies and banks. The risk-based capital guidelines are designed to make regulatory capital requirements more sensitive to differences in risk profile among holding companies and banks, to account for off-balance sheet exposure and to minimize disincentives for holding liquid assets. Assets and off-balance sheet items are assigned to broad risk categories, each with appropriate weightings. The resulting capital ratios represent capital as a percentage of total risk-weighted assets and off-balance sheet items. The capital adequacy guidelines limit the degree to which a holding company or bank may leverage its equity capital.

In July 2013, federal banking regulators approved final rules that revised the regulatory capital rules to incorporate certain revisions by the Basel Committee on Banking Supervision to the Basel capital framework ("Basel III"). The phase-in period for the final rules began for the Company on January 1, 2015, and ended with the final rules' requirements phased in on January 1, 2019.

The final rules, among other things, include the common equity Tier 1 capital ("CET1") to risk-weighted assets ratio, including a capital conservation buffer of 2.5%. The required CET1 ratio is a minimum of 7%. The minimum ratio of Tier 1 capital to risk-weighted assets is 8.5%, and the minimum leverage ratio is 5.0%. Under the final rules, as Umpqua grew above \$15.0 billion in assets as a result of an acquisition, the combined trust preferred security debt issuances were phased out of Tier 1 and into Tier 2 capital.

Under Basel III, the effects of certain accumulated other comprehensive items are not excluded; however, the Company and the Bank, have made a one-time permanent election to continue to exclude these items in order to avoid significant variations in the level of capital depending upon the impact of interest rate fluctuations on the fair value of the Company's securities portfolio.

Failure to meet minimum capital requirements could subject a bank to a variety of enforcement remedies. An institution's failure to exceed the capital conservation buffer with common equity Tier 1 capital would result in limitations on an institution's ability to make capital distributions and discretionary bonus payments. FDICIA requires federal banking regulators to take "prompt corrective action" with respect to a capital-deficient institution, including requiring a capital restoration plan and restricting certain growth activities of the institution. Umpqua could be required to guarantee any such capital restoration plan required of the Bank if the Bank became undercapitalized. Pursuant to FDICIA, regulations were adopted defining five capital levels: well capitalized, adequately capitalized, undercapitalized, severely undercapitalized and critically undercapitalized. Under the regulations, the Bank is considered "well capitalized" as of December 31, 2019.

In July 2019, the OCC, the FRB, and the FDIC issued a final rule intended to simplify aspects of the regulatory capital rules for banking organizations, such as Umpqua, that are not advanced approaches banking organizations. The final rule includes amendments to the capital treatment of mortgage servicing assets, certain deferred tax assets, investments in the capital instruments of unconsolidated financial institutions, and minority interests. These amendments are effective for Umpqua as of January 1, 2020.

Federal and State Regulation of Broker-Dealers. Umpqua Investments is regulated by the Financial Industry Regulatory Authority ("FINRA"), as well as the SEC, and has customer funds, excluding decline in value of securities, insured through the Securities Investors Protection Corporation ("SIPC") as well as third party insurers. FINRA and the SEC perform regular examinations of Umpqua Investments that include reviews of policies, procedures, recordkeeping, trade practices, and customer protection as well as other inquiries.

Effects of Government Monetary Policy. Our earnings and growth are affected not only by general economic conditions, but also by the fiscal and monetary policies of the federal government, particularly the Federal Reserve. The Federal Reserve implements national monetary policy for such purposes as curbing inflation and combating recession, through its open market operations in U.S. Government securities, control of the discount rate applicable to borrowings from the Federal Reserve, and establishment of reserve requirements against certain deposits. These activities influence growth of bank loans, investments and deposits, and also affect interest rates charged on loans or paid on deposits. The nature and impact of future changes in monetary policies and their impact on us cannot be predicted with certainty.

Regulation of the Financial Services Industry. Federal laws and regulations governing banking and financial services underwent significant changes in recent years and we believe will continue to undergo significant changes in the future. From time to time, legislation is introduced in the United States Congress that contains proposals for altering the structure, regulation, and competitive relationships of the nation's financial institutions. If enacted into law, these proposals could increase or decrease the cost of doing business, limit or expand permissible activities, or affect the competitive balance among banks, savings associations, and other financial institutions. Whether or in what form any such legislation may be adopted or the extent to which our business might be affected thereby cannot be predicted.

The GLB Act, enacted in November 1999, repealed sections of the Banking Act of 1933, commonly referred to as the Glass-Steagall Act, that prohibited banks from engaging in securities activities, and prohibited securities firms from engaging in banking. The GLB Act created a new form of holding company, known as a financial holding company, that is permitted to acquire subsidiaries that are engaged in banking, securities underwriting and dealing, and insurance underwriting.

To qualify as a financial holding company, the bank holding company must be deemed to be well-capitalized and well-managed, as those terms are used by the Federal Reserve. In addition, each subsidiary bank of a bank holding company must also be well-capitalized and well-managed and be rated at least "satisfactory" under the CRA. A bank holding company that does not qualify, or has not chosen, to become a financial holding company must limit its activities to traditional banking activities and those non-banking activities the Federal Reserve has deemed to be permissible because they are closely related to the business of banking.

The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 ("Riegle-Neal Act") permits interstate banking and branching, which allows banks to expand nationwide through acquisition, consolidation or merger. Under this law, an adequately capitalized bank holding company may acquire banks in any state or merge banks across state lines if permitted by state law. Further, banks may establish and operate branches in any state subject to the restrictions of applicable state law. Under Oregon law, an out-of-state bank or bank holding company may merge with or acquire an Oregon state chartered bank or bank holding company upon receipt of approval from the Director of the DCBS. The Bank now has the ability to open additional de novo branches in the states of Oregon, California, Washington, Idaho, and Nevada.

The Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act") eliminated interstate branching restrictions that were implemented as part of the Riegle-Neal Act, and removed many restrictions on de novo interstate branching by national and state-chartered banks. The FDIC and the Office of the Comptroller of the Currency now have authority to approve applications by insured state nonmember banks and national banks, respectively, to establish de novo branches in states other than the bank's home state if "the law of the State in which the branch is located, or is to be located, would permit establishment of the branch, if the bank were a State bank chartered by such State."

Anti-Terrorism Legislation. The Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act ("USA Patriot Act") prohibits banks from providing correspondent accounts directly to foreign shell banks, as well as imposes due diligence requirements on banks opening and holding accounts for foreign financial institutions or wealthy foreign individuals. Banks are also required to have effective compliance processes in place relating to anti-money laundering ("AML") compliance, as well as compliance with the Bank Secrecy Act.

Sarbanes-Oxley Act of 2002. The Sarbanes-Oxley Act of 2002 addresses public company corporate governance, auditing, accounting, executive compensation and enhanced and timely disclosure of corporate information.

The Dodd-Frank Act. In 2010, the Dodd-Frank Act was signed, which was a sweeping overhaul of financial industry regulation. The Dodd-Frank Act created the Financial Stability Oversight Council and permanently raised the FDIC deposit insurance coverage to \$250,000. In addition, the Dodd-Frank Act added additional requirements on Bank and their regulators, including additional interchange fee limits, mortgage limit requirements, and say-on-pay executive compensation requirements.

Stress Testing and Capital Planning. Initially, Umpqua was subject to annual Dodd-Frank Act capital stress testing ("DFAST") requirements of the Federal Reserve and the FDIC. As part of the DFAST process, Umpqua was required to submit the results of the company-run stress tests to the FDIC, and Umpqua disclosed certain results from stress testing exercises. However, in May 2018, the Economic Growth, Regulatory Relief, and Consumer Protection Act, modified provisions of the Dodd-Frank Act that impacted Umpqua, which included raising the total asset threshold from \$10 billion to \$250 billion at which bank holding companies are required to conduct annual company-run stress tests. Although Umpqua monitors and stress tests its capital consistent with the safety and soundness expectations of the federal regulators, the Company no longer conducts company run DFAST capital stress-testing as a result of the legislative amendments.

CFPB Regulation and Supervision. The Dodd-Frank Act gives the CFPB authority to examine Umpqua and Umpqua Bank for compliance with a broad range of federal consumer financial laws and regulations, including the laws and regulations that relate to credit card, deposit, mortgage and other consumer financial products and services the Bank offers. In addition, the Dodd-Frank Act gives the CFPB broad authority to take corrective action against Umpqua and Umpqua Bank as it deems appropriate. The CFPB is authorized to issue regulations and take enforcement actions to prevent and remedy acts and practices relating to consumer financial products and services that it deems to be unfair, deceptive or abusive. The agency also has authority to impose new disclosure requirements for any consumer financial product or service. In addition, the CFPB's regulations require lenders to conduct a reasonable and good faith determination at or before consummation of a residential mortgage loan that the borrower will have a reasonable ability to repay the loan.

Joint Agency Guidance on Incentive Compensation. Federal banking regulators joint agency guidance applies to executive and non-executive incentive compensation plans administered by banks. The guidance says that incentive compensation programs must:

- Provide employees incentives that appropriately balance risk and reward;
- Be compatible with effective controls and risk- management; and
- Be supported by strong corporate governance, including active and effective oversight by the board.

The Federal Reserve reviews, as part of the regular, risk-focused examination process, the incentive compensation arrangements of the Company and other banking organizations. The findings of the supervisory initiatives are included in reports of examination and any deficiencies will be incorporated into the Company's supervisory ratings, which can affect the Company's ability to make acquisitions and take other actions.

ITEM 1A. RISK FACTORS.

In addition to the other information set forth in this report, you should carefully consider the risk factors discussed below. These factors could adversely affect our business, financial condition, liquidity, results of operations and capital position, and the value of, and return on, an investment in the Company. These factors could cause our actual results to differ materially from our historical results or the results contemplated by the forward-looking statements contained in this report. An investment in the Company involves risk, including the possibility that the value of the investment could fall substantially and that dividends on the investment could be reduced or eliminated.

CREDIT RISK

The majority of our assets are loans, which if not repaid would result in losses to the Bank.

The Bank and its operating subsidiary are subject to credit risk, which is the risk of losing principal or interest due to borrowers' failure to repay loans or leases in accordance with their terms. Underwriting and documentation controls cannot mitigate all credit risk. A downturn in the economy or the real estate market in our market areas or a rapid increase in interest rates could have a negative effect on collateral values and borrowers' ability to repay. To the extent loans are not paid timely by borrowers, the loans are placed on non-accrual status, thereby reducing interest income. Further, under these circumstances, an additional provision for loan and lease losses or unfunded commitments may be required. Risk of borrower default may arise from events or circumstances that are difficult to detect or foresee.

We maintain an allowance for loan losses, which is a reserve established through a provision for loan losses charged to expense, that represents management's best estimate of probable credit losses that have been incurred within the existing portfolio of loans. The allowance for loan losses, in the judgement of management, is necessary to reserve for estimated loan losses and risks inherent in the loan portfolio. The level of the allowance for loan losses reflects management's continuing evaluation of industry concentrations; specific credit risks; loan loss experience; current loan portfolio quality; present economic, political, and regulatory conditions; and unidentified losses inherent in the current loan portfolio. The determination of the appropriate level of the allowance for loan losses inherently involves a high degree of subjectivity and requires us to make significant estimates of current credit risks using existing qualitative and quantitative information, all of which may undergo material changes. Changes in economic conditions affecting borrowers, new information regarding existing loans, identification of additional problem loans, adoption of applicable new accounting standards, and other factors, both within and outside of our control, may require an increase in the allowance for loan losses.

In addition, bank regulatory agencies periodically review our allowance for loan losses and may require an increase in the provision for loan losses or the recognition of additional loan charge offs, based on judgments different than those of management. An increase in the allowance for loan losses would result in a decrease in net income, and possibly risk-based capital, and could have a material adverse effect on our financial condition and results of operations.

We are subject to lending concentration risks.

As of December 31, 2019, approximately 72% of our loan portfolio consisted of commercial and industrial, real estate construction, commercial real estate loans, and lease financing (collectively, "commercial loans"). Commercial loans are generally viewed as having more inherent risk of default than residential mortgage loans or other consumer loans. Also, the commercial loan balance per borrower is typically larger than that for residential mortgage loans and other consumer loans, implying higher potential losses on an individual loan basis. Because our loan portfolio contains a number of commercial loans with balances over \$20 million, the deterioration of one or a few of these loans could cause a significant increase in nonaccrual loans, which could have a material adverse effect on our financial condition and results of operations.

Deterioration in the real estate market or other segments of our loan portfolio would lead to additional losses, which could have a material adverse effect on our business, financial condition and results of operations.

As of December 31, 2019, approximately 76% of our total loan portfolio is secured by real estate, the majority of which is commercial real estate. Our success depends in part on economic conditions in the western United States and adverse changes in markets where our real estate collateral is located could adversely affect our business. Increases in delinquency rates or declines in real estate market values would require increased net charge-offs and increases in the allowance for loan and lease losses, which could have a material adverse effect on our business, financial condition and results of operations and prospects.

The FASB issued an accounting standard update that will result in a significant change in how we recognize credit losses and may have a material impact on our financial condition or results of operations.

In June 2016, the FASB issued an accounting standard update, "Financial Instruments-Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments," which replaces the current "incurred loss" model for recognizing credit losses with an "expected loss" model referred to as the "CECL" model. Under the CECL model, we will be required to present certain financial assets carried at amortized cost, such as loans held for investment and held-to-maturity debt securities, at the net amount expected to be collected. The measurement of expected credit losses is to be based on information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. This measurement will take place at the time the financial asset is first added to the balance sheet and periodically thereafter. This differs significantly from the "incurred loss" model, which delays recognition until it is probable a loss has been incurred. The CECL model may create more volatility in the level of our allowance for loan losses. The new CECL standard is effective for us for fiscal years beginning after December 15, 2019 and for interim periods within those fiscal years. We expect to recognize a one-time cumulative-effect adjustment to our allowance for loan losses as of the beginning of the first reporting period in which we adopt the new standard, consistent with regulatory expectations. We incurred transition costs and also expect to incur ongoing costs in maintaining the additional CECL models and methodology along with acquiring forecasts used within the models, and that the methodology will result in increased capital costs upon initial adoption as well as over time.

MARKET AND INTEREST RATE RISK

Difficult or volatile market conditions or weak economic conditions may adversely affect our business.

Our business and financial performance are vulnerable to weak economic conditions, primarily in the United States and especially in the western United States. A deterioration in economic conditions in our primary market areas could result in the following consequences, any of which could materially and adversely affect our business: increased loan delinquencies; problem assets and foreclosures; significant write-downs of asset values; volatile financial markets; lower demand for our products and services; reduced low cost or noninterest bearing deposits; intangible asset impairment; and collateral for loans made by us, especially real estate, may decline in value, in turn reducing customers' borrowing power, and reducing the value of assets and collateral associated with our existing loans. Additional issues surrounding weakening economic conditions and volatile markets that could adversely impact us include:

- Increased regulation of our industry, and resulting increased costs associated with regulatory compliance and potential limits on our ability to pursue business opportunities.
- Our ability to assess the creditworthiness of our customers may be impaired if the models and approaches we use to select, manage, and underwrite our customers become less predictive of future performance.
- The process we use to estimate losses inherent in our loan portfolio requires difficult, subjective, and complex judgments, including forecasts of economic conditions and how these economic predictions might impair the ability of our borrowers to repay their loans, which process may no longer be capable of accurate estimation and may, in turn, impact its reliability.
- Downward pressure on our stock price.

A rapid change in interest rates, or maintenance of rates at historically high or low levels for an extended period, could make it difficult to improve or maintain our current interest income spread and could result in reduced earnings.

Our earnings are largely derived from net interest income, which is interest income and fees earned on loans and investments, less interest paid on deposits and other borrowings. Interest rates are highly sensitive to many factors that are beyond the control of our management, including general economic conditions and the policies of various governmental and regulatory authorities. The actions of the Federal Reserve influence the rates of interest that we charge on loans and pay on borrowings and interest-bearing deposits. We cannot predict the nature or timing of future changes in monetary, tax and other policies or the effects that they may have on our activities and financial results.

As interest rates change, net interest income is affected. With fixed rate assets (such as fixed rate loans and most investment securities) and liabilities (such as certificates of deposit), the effect on net interest income depends on the cash flows associated with the maturity of the asset or liability. Asset/liability management policies may not be successfully implemented and from time to time our risk position is not balanced. An unanticipated rapid decrease or increase in interest rates could have an adverse effect on the spreads between the interest rates earned on assets and the rates of interest paid on liabilities, and therefore on the level of net interest income. For instance, any rapid increase in interest rates in the future could result in interest expense increasing faster than interest income because of fixed rate loans and longer-term investments. Historically low rates for an extended period of time result in reduced returns from the investment and loan portfolios. The current low interest rate environment could affect consumer and business behavior in ways that are adverse to us and negatively impact our ability to increase our net interest income. Further, substantially higher interest rates generally reduce loan demand and may result in slower loan growth than previously experienced.

Shorter-term and longer-term interest rates remain below historical averages, as well as the yield curve, which has been relatively flat. A flat yield curve combined with low interest rates generally leads to lower revenue and reduced margins because it tends to limit our ability to increase the spread between asset yields and funding costs. Sustained periods of time with a flat yield curve coupled with low interest rates could have a material adverse effect on our earnings and our net interest margin.

Interest rate volatility and credit risk adjusted rate spreads may impact our financial assets and liabilities measured at fair value.

Our investment portfolio consists of \$1.1 billion of collateralized mortgage obligations, the nature of these securities is such that changes in market interest rates impact the value of the assets. The widening of the credit risk adjusted rate spreads on potential new issuances of junior subordinated debentures above our contractual spreads and reductions in three-month LIBOR rates have contributed to the cumulative positive fair value adjustment in our junior subordinated debentures carried at fair value. Tightening of these credit risk adjusted rate spreads and interest rate volatility may result in recognizing negative fair value adjustments in the future.

It is possible the Company may accelerate redemption of the existing junior subordinated debentures to support regulatory total capital levels. This could result in adjustments to the fair value of these instruments including the acceleration of losses on junior subordinated debentures carried at fair value.

We rely on the soundness of other financial institutions and government sponsored enterprises.

Financial services institutions and government sponsored enterprises are interrelated as a result of trading, clearing, processing, lending, counterparty, guarantor and other relationships. We have exposure to many different industries and counterparties in financial services, including brokers and dealers, commercial banks, bankers banks, correspondent banks, investment banks, mutual and hedge funds, institutions involved in the mortgage business and others. Transactions with these entities expose us to risk in the event of default of our counterparty, including due to their failure or financial difficulty. Our ability to engage in funding transactions could be adversely affected by the actions and commercial soundness of other financial institutions, including if there is a default by, or rumors about, one or more financial services institutions. Our credit risk could also be impacted when the collateral we hold cannot be realized or is liquidated at prices not sufficient to recover the full amount of the financial instrument exposure due to us.

We may be impacted by the retirement of LIBOR as a reference rate.

The Financial Conduct Authority ("FCA") announced that the London Interbank Offered Rate ("LIBOR") may no longer be published after 2021. In response, the Alternative Reference Rates Committee ("ARRC") was convened in the U.S. to explore alternative reference rates and supporting processes. The ARRC is made up of financial and capital market institutions, is convened by the Federal Reserve Board and the Federal Reserve Bank of New York, and includes participation by various regulators. The ARRC identified a potential successor rate to LIBOR in the Secured Overnight Financing Rate ("SOFR") and crafted the Paced Transition Plan to facilitate the transition. However, there are conceptual and technical differences between LIBOR and SOFR.

A significant portion of our loans, approximately 47%, and all of the related derivative contracts within the Commercial & Industrial, Commercial Real Estate, and Residential Mortgage portfolios reference LIBOR. We have not yet determined the optimal reference rate(s) that we will ultimately use for our credit products going forward without additional guidance from ARRC and more SOFR historical data. We have organized an internal initiative to identify operational and contractual best practices, assess our risks, manage the transition, facilitate communication with our customers, and monitor the impacts. The LIBOR retirement is a significant shift in the industry. A transition away from LIBOR could impact our pricing and interest rate risk models, our loan product structures, our hedging strategies, and communication with our customers.

The market transition away from LIBOR could:

- adversely affect the interest rates paid or received on our floating rate obligations, loans, deposits, derivatives and other financial instruments tied to LIBOR
- adversely affect the value of our financial instruments tied to LIBOR
- result in additional regulatory scrutiny of our preparedness for the transition away from LIBOR and increased compliance and operational costs related to the transition;
- result in disputes, litigation or other actions with counterparties regarding the interpretation and enforceability of fallback or replacement index language in LIBOR-based instruments and securities;
- cause customer confusion and negatively impact our relationships with borrowers; and
- require the transition to or development of appropriate systems and analytics to effectively transition our risk management processes from LIBOR-based products to those based on an alternative benchmark.

The value of the securities in our investment securities portfolio may be negatively affected by disruptions in securities markets.

The market for some of the investment securities held in our portfolio has become volatile over the past three years. Volatile market conditions or deteriorating financial performance of the issuer or obligor may detrimentally affect the value of these securities. There can be no assurance that potential declines in market value associated with these disruptions will not result in other-than-temporary or permanent impairments of these assets, which would lead to accounting charges that could have a material adverse effect on our net income and capital levels.

LIQUIDITY RISK

Deposits are an important source of funds for our continued growth and profitability.

Our business strategy calls for continued growth. Our ability to continue to grow depends primarily on our ability to successfully attract deposits to fund loan growth. Core deposits are a low cost and generally stable source of funding and a significant source of funds for our lending activities. Our inability to retain or attract such funds could adversely affect our liquidity. If we are forced to seek other sources of funds, such as additional brokered deposits or borrowings from the FHLB, the interest expense associated with these other funding sources may be higher than the rates we are currently paying on our deposits, which would adversely impact our net income, and such sources of funding may be more volatile and unavailable to us.

Conditions in the financial markets may limit our access to additional funding to meet our liquidity needs.

Liquidity is essential to our business. An inability to raise funds through deposits, borrowings, the sale or pledging as collateral of loans and other assets due to market conditions could have a substantial negative effect on our liquidity. Our access to funding sources in amounts adequate to finance our activities could be impaired by factors that affect us specifically or the financial services industry in general. An adverse regulatory action against us could detrimentally impact our access to liquidity sources. Our ability to borrow could also be impaired by factors that are nonspecific to us, such as severe disruption of the financial markets or negative news and expectations about the prospects for the financial services industry as a whole as evidenced by turmoil in the domestic and worldwide credit markets.

Our wholesale funding sources may prove insufficient to support our future growth or an unexpected reduction in deposits.

We must maintain sufficient funds to respond to the needs of depositors and borrowers. As a part of our liquidity management, we use a number of funding sources in addition to core deposit growth and repayments and maturities of loans and investments. If we grow more rapidly than any increase in our deposit balances, we are likely to become more dependent on these sources, which include brokered deposits, Federal Home Loan Bank advances, proceeds from the sale of loans and liquidity resources at the holding company. Our financial flexibility will be severely constrained if we are unable to maintain our access to funding or if adequate financing is not available to accommodate future growth at acceptable interest rates. If we are required to rely more heavily on more expensive funding sources to support future growth, our revenues may not increase proportionately to cover our costs, and our profitability would be adversely affected.

MORTGAGE BANKING RISK

Changes in interest rates could reduce the value of mortgage servicing rights ("MSR").

We acquire MSR when we keep servicing rights after we sell originated residential mortgage loans. We sell the majority of our originated residential mortgage loans with servicing retained. We measure MSR at fair value. Fair value is the present value of estimated future net servicing income, calculated based on a number of variables, including assumptions about the likelihood of prepayment by borrowers. Changes in interest rates can affect prepayment assumptions and consequently MSR fair value. When interest rates fall, borrowers are usually more likely to prepay their mortgage loans by refinancing them at a lower rate. As the likelihood of prepayment increases, MSR fair value can decrease, which reduces earnings in the period in which the decrease occurs.

A low interest rate environment increases our exposure to prepayment risk in our mortgage portfolio and the mortgage-backed securities in our investment portfolio. Increased prepayments, refinancing or other factors that impact loan balances could reduce expected revenue associated with mortgage assets and could also lead to a reduction in the value of our mortgage servicing rights, which could have a negative impact on our financial results.

Our mortgage banking revenue can fluctuate significantly.

We earn revenue from fees received for originating, selling and servicing mortgage loans. Generally, if interest rates rise, the demand for mortgage loans tends to fall, reducing the revenue we receive from originations and sales of mortgage loans. At the same time, mortgage banking revenue can increase through increases in fair value of MSR. When interest rates decline, originations tend to increase and the value of MSR tends to decline, also with some offsetting revenue effect. The negative effect on revenue from a decrease in the fair value of residential MSR is immediate, but any offsetting revenue benefit from more originations and the MSR relating to new loans accrues over time. It is also possible that even if interest rates were to fall, mortgage originations may also fall or any increase in mortgage originations may not be enough to offset the decrease in the MSR value caused by the lower rates.

We depend upon programs administered by Fannie Mae, Freddie Mac and Ginnie Mae.

Our ability to generate revenues in our home lending group depends on programs administered by government-sponsored entities that play an important role in the residential mortgage industry. During 2019, 63% of mortgage loans were originated for sale to, or through programs sponsored by Fannie Mae, Freddie Mac or Ginnie Mae. We service loans on behalf of Fannie Mae and Freddie Mac, as well as loans that have been securitized pursuant to securitization programs sponsored by Fannie Mae, Freddie Mac and Ginnie Mae. A majority of our mortgage servicing rights and loans serviced through subservicing agreements relate to these servicing activities. These entities establish the base service fee to compensate us for servicing loans as well as the assessment of fines and penalties that may be imposed upon us for failing to meet servicing standards. Our status as a Fannie Mae, Freddie Mac and Ginnie Mae approved seller and servicer is subject to compliance with guidelines and failure to meet such guidelines could result in the unilateral termination of our status as an approved seller or servicer. Changes in the existing government-sponsored mortgage programs or servicing eligibility standards through legislation or otherwise, or our failure to maintain a relationship with each of Fannie Mae, Freddie Mac and Ginnie Mae, could materially and adversely affect our business, financial position, results of operations and cash flows through negative impact on the pricing of mortgage related assets in the secondary market, higher mortgage rates to borrowers, or lower mortgage origination volumes and margins.

LEGAL, REGULATORY AND COMPLIANCE RISK

We are subject to extensive government regulation and supervision.

Umpqua Holdings Corporation and its subsidiaries, primarily Umpqua Bank, are subject to extensive federal and state regulation and supervision including by the FDIC, Oregon Division of Financial Regulation, Federal Reserve Board, CFPB, the SEC and FINRA, the primary focus of which is to protect customers, depositors, the deposit insurance fund and the safety and soundness of the banking system as a whole, and not shareholders. The quantity and scope of applicable federal and state regulations may place banks and brokerage firms at a competitive disadvantage compared to less regulated competitors such as fintech companies, finance companies, credit unions, mortgage banking companies and leasing companies. These laws and regulations apply to almost every aspect of our business, and affect our lending practices and procedures, capital structure, investment activities, deposit gathering activities, our services and products, risk management practices, dividend policy and growth, including through acquisitions.

Legislation and regulation with respect to our industry has increased in recent years, and we expect that supervision and regulation will continue to expand in scope and complexity. Congress and federal regulatory agencies continually review banking laws, regulations and policies for possible changes. Changes to statutes, regulations or regulatory policies, including changes in interpretation or implementation of statutes, regulations or policies, could affect us in substantial and unpredictable ways, and could subject us to additional costs, restrict our growth, limit the services and products we may offer or limit the pricing of banking services and products. In addition, establishing systems and processes to achieve compliance with laws and regulation increases our costs and could limit our ability to pursue business opportunities.

If we receive less than satisfactory results on regulatory examinations, we could be subject to damage to our reputation, significant fines and penalties, requirements to increase compliance and risk management activities and related costs and restriction on acquisitions, new locations, new lines of business, or continued growth. Future changes in federal and state banking and brokerage regulations could adversely affect our operating results and ability to continue to compete effectively. For example, the Dodd-Frank Act and related regulations subject us to additional restrictions, oversight and reporting obligations, which have significantly increased costs. And over the last several years, state and federal regulators have focused on enhanced risk management practices, compliance with the Bank Secrecy Act and anti-money laundering laws, data integrity and security, use of service providers, and fair lending and other consumer protection issues, which has increased our need to build additional processes and infrastructure. Government agencies charged with adopting and interpreting laws, rules and regulations, may do so in an unforeseen manner, including in ways that potentially expand the reach of the laws, rules or regulations more than initially contemplated or currently anticipated. We cannot predict the substance or impact of pending or future legislation or regulation, or the application thereof. Compliance with such current and potential regulation and scrutiny could significantly increase our costs, impede the efficiency of our internal business processes, require us to increase our regulatory capital and limit our ability to pursue business opportunities in an efficient manner. Our success depends on our ability to maintain compliance with both existing and new laws and regulations.

We are required to comply with stringent capital requirements.

As set forth in Item 1 "Supervision and Regulation" of this report, we are required to maintain a common equity Tier 1 capital ratio of 4.5%, a Tier 1 capital ratio of 6%, a total capital ratio of 8%, and a leverage ratio of 4%. In addition, we must maintain an additional capital conservation buffer of 2.5% of total risk weighted assets or be subject to limitations on dividends and other capital distributions, as well as limiting discretionary bonus payments to executive officers. The new rules may require us to raise more common capital or other capital that qualifies as Tier 1 capital. Maintaining higher levels of capital may reduce our profitability and otherwise adversely affect our business, financial condition, or results of operations. The application of more stringent capital requirements could, among other things, result in lower returns on invested capital and result in regulatory actions if we were to be unable to comply with such requirements.

We may be required to raise additional capital in the future, but that capital may not be available when it is needed, or it may only be available on unacceptable terms, which could adversely affect our financial condition and results of operations.

We are required by federal and state regulatory authorities to maintain adequate levels of capital to support our operations. Our ability to raise additional capital, if needed, will depend on conditions in the capital markets at that time, which are outside our control, and on our financial performance. Accordingly, we may not be able to raise additional capital, if needed, on terms acceptable to us. If we cannot raise additional capital when needed, our ability to further expand our operations and pursue our growth strategy could be materially impaired. We and the Bank are currently well capitalized under applicable regulatory guidelines. However, our business could be negatively affected if we or the Bank failed to remain well capitalized. For example, because Umpqua Bank is well capitalized, and we otherwise qualify as a financial holding company, we are permitted to engage in a broader range of activities than are permitted to a bank holding company. Loss of financial holding company status could require that we cease these broader activities. The banking regulators are authorized (and sometimes required) to impose a wide range of requirements, conditions, and restrictions on banks, thrifts, and bank holding companies that fail to maintain adequate capital levels.

We have risk related to legal proceedings.

We are involved in judicial, regulatory, and arbitration proceedings concerning matters arising from our business activities and fiduciary responsibilities. We establish reserves for legal claims when payments associated with the claims become probable and the costs can be reasonably estimated. We may incur costs for a legal matter even if we have not established a reserve, and the actual costs of resolving a legal matter may substantially exceed any established reserves for the matter. Our insurance may not cover all claims that may be asserted against us. Any claim asserted against us, regardless of merit or eventual outcome, could harm our reputation. The ultimate resolution of a pending or future legal proceeding, depending on the remedy sought and granted, could materially adversely affect our results of operations and financial condition.

As a bank holding company that conducts substantially all of our operations through the Bank, our ability to pay dividends, repurchase our shares or to repay our indebtedness depends upon liquid assets held by the holding company and the results of operations of our subsidiaries.

The Company is a separate and distinct legal entity from our subsidiaries and it receives substantially all of its revenue from dividends paid from the Bank. There are legal limitations on the extent to which the Bank may extend credit, pay dividends or otherwise supply funds to, or engage in transactions with, us. Our inability to receive dividends from the Bank could adversely affect our business, financial condition, results of operations and prospects.

Our net income depends primarily upon the Bank's net interest income, which is the income that remains after deducting from total income generated by earning assets the expense attributable to the acquisition of the funds required to support earning assets (primarily interest paid on deposits). The amount of interest income is dependent on many factors including the volume of earning assets, the general level of interest rates, the dynamics of changes in interest rates and the levels of nonperforming loans. All of those factors affect the Bank's ability to pay dividends to the Company.

Various statutory provisions restrict the amount of dividends the Bank can pay to us without regulatory approval. The Bank may not pay cash dividends if that payment could reduce the amount of its capital below that necessary to meet the "adequately capitalized" level in accordance with regulatory capital requirements. It is also possible that, depending upon the financial condition of the Bank and other factors, regulatory authorities could conclude that payment of dividends or other payments, including payments to us, is an unsafe or unsound practice and impose restrictions or prohibit such payments.

Under Oregon law, the Bank may not pay dividends in excess of unreserved retained earnings, deducting there from, to the extent not already charged against earnings or reflected in a reserve, the following: (1) all bad debts, which are debts on which interest is past due and unpaid for at least six months, unless the debt is fully secured and in the process of collection; (2) all other assets charged-off as required by Oregon bank regulators or a state or federal examiner; and (3) all accrued expenses, interest and taxes of the institution. The Federal Reserve has issued a policy statement on the payment of cash dividends by bank holding companies, which expresses the Federal Reserve's view that a bank holding company should pay cash dividends only to the extent that its net income for the past year is sufficient to cover both the cash dividends and a rate of earnings retention that is consistent with the holding company's capital needs, asset quality and overall financial condition.

TECHNOLOGY RISK

We face significant cyber, data and information security risk.

Cyber attacks and other data security risks and breaches include computer viruses, malicious or destructive code, denial of service or information attacks, hacking, ransomware, social engineering attacks targeting our associates and customers, improper access by associates or vendors, malware intrusion and data corruption attempts, and identity theft that could result in the disclosure or destruction of confidential or proprietary information.

Cyberattack techniques can be very sophisticated and difficult to promptly detect, change regularly, and can originate from a wide variety of sources including third parties who are or may be involved in organized crime or linked to terrorist organizations or hostile foreign governments. Cyber security risk management programs are expensive to maintain and as cyber threats continue to grow and evolve we may be required to expend significant additional resources to continue to modify or enhance protective measures or to investigate and remediate information security vulnerabilities or incidents. Although we have programs in place related to business continuity, disaster recovery and information and cyber security to maintain the confidentiality, integrity, and availability of our systems, business applications and customer information, we may not timely detect disruptions and disruptions may still give rise to interruptions in service to customers and loss or liability to us, including loss of customer data.

Cyber risks increase as we continue to develop and grow our mobile and other internet-based product offerings and expand our internal usage of web-based products and applications.

Hacking of personal information and identity theft risks, in particular, could cause serious reputational harm. A successful penetration or circumvention of system security could cause serious negative consequences that could adversely impact its results of operations, liquidity and financial condition, including:

- loss of customers and business opportunities;
- costs associated with maintaining business relationships after an attack or breach;
- significant business disruption to our operations;
- misappropriation, exposure, or destruction of our confidential information, intellectual property, funds, or those of our customers;
- damage to computers or systems;
- violation of applicable privacy and other laws;
- litigation;
- regulatory fines, penalties or intervention;
- loss of confidence in our security measures;
- reimbursement or other compensatory costs; and
- additional compliance costs.

Our cybersecurity insurance may not provide sufficient coverage in the event of a breach or may not be available in the future on acceptable terms.

Cybersecurity and data privacy are areas of heightened legislative and regulatory focus.

As cybersecurity and data privacy risks for banking organizations and the broader financial system have significantly increased in recent years, cybersecurity and data privacy issues have become the subject of increasing legislative and regulatory focus. The federal bank regulatory agencies have proposed enhanced cyber risk management standards, focusing on cyber risk governance and management, management of internal and external dependencies, and incident response, cyber resilience and situational awareness. Several states have proposed or adopted cybersecurity legislation and regulations, which require, among other things, notification to affected individuals when there has been a security breach of their personal data. We receive, maintain and store non-public personal information of our customers and counterparties, including, but not limited to, personally identifiable information and personal financial information. The sharing, use, disclosure and protection of this information are governed by federal and state law. Both personally identifiable information and personal financial information is increasingly subject to legislation and regulation, the intent of which is to protect the privacy of personal information that is collected and handled. For example, in June of 2018, the Governor of California signed into law the California Consumer Privacy Act ("CCPA"), which became effective on January 1, 2020. We may become subject to new legislation or regulation concerning cybersecurity or the privacy of personally identifiable information and personal financial information or of any other information we may store or maintain. We could be adversely affected if new legislation or regulations are adopted or if existing legislation or regulations are modified such that we are required to alter our systems or require changes to our business practices or privacy policies. If cybersecurity, data privacy, data protection, data transfer or data retention laws are implemented, interpreted or applied in a manner inconsistent with our current practices, we may be subject to fines, litigation or regulatory enforcement actions or ordered to change its business practices, policies or systems in a manner that adversely impacts our operating results.

The failure to understand and adapt to continual technological changes could negatively impact our business.

The financial services industry is undergoing rapid technological change with frequent introductions of new technology-driven products and services by depository institutions and fintech companies. Technological changes are often designed to eliminate banks as intermediaries which could result in the loss of income and customer deposits. New technology-driven products and services are often introduced and adopted, including innovative ways that customers can make payments, access products and manage accounts. We could be required to make substantial capital expenditures to modify or adapt existing products and services or develop new products and services. We may not be successful in introducing new products and services or those new products may not achieve market acceptance. We could lose business, be forced to price products and services on less advantageous terms to retain or attract clients, or be subject to cost increases if we do not effectively develop and implement new technology. Our future success depends, in part, upon our ability to address the needs of our customers by using technology to provide products and services that will satisfy customer demands, as well as to create additional efficiencies in operations. In addition, advances in technology such as digital, mobile, telephone, text, and on-line banking; e-commerce; and self-service automatic teller machines and other equipment, as well as changing customer preferences to access our products and services through digital channels, could decrease the value of our store network and other assets. We may close or sell certain stores and restructure or reduce our remaining stores and work force. These actions could lead to losses on assets, expense to reconfigure stores and loss of customers in certain markets. As a result, our business, financial condition or results of operations may be adversely affected.

We may not be able to successfully implement current or future information technology system enhancements and operational initiatives.

We are investing significant resources in information technology system enhancements and operational initiative to provide functionality, new and enhanced products and services, more efficient internal operations, meet regulatory requirements and streamline our customer experience. We may not be able to successfully implement and integrate such system enhancements and related operational initiatives or do so within budgets and on time. We may incur significant training, licensing, maintenance, consulting and amortization expenses during and after implementation, and may not realize the anticipated long-term benefits.

Our business is highly reliant on technology and our ability to manage the operational risks associated with technology.

Our business involves storing, transmitting, retrieving and processing sensitive consumer and business customer data. We depend on internal systems and outsourced technology to support these data storage and processing operations in a secure manner. Despite our efforts to ensure the security and integrity of our systems, we may not be able to anticipate, detect or recognize threats to our systems or to implement effective preventive measures against all cyber security breaches. A cyber security breach or cyberattack could persist for a long time before being detected and could result in theft of sensitive data or disruption of our transaction processing systems. Our inability to use or access these information systems at critical points in time could unfavorably impact the timeliness and efficiency of our business operations. Our customers and other third parties may use personal mobile devices or computing devices that are outside of its network environment and are subject to their own cybersecurity risks to access our network, products and services.

We depend on our ability to manage the operational risks associated with technology to avoid losses and reputational damage.

Our business involves storing and processing sensitive consumer and business customer data. We depend on internal systems and outsourced technology to support these data storage and processing operations. Despite our efforts to ensure the security and integrity of our systems, we may not be able to anticipate, detect or recognize threats to our systems or to implement effective preventive measures against all cyber security breaches. A cyber security breach or cyberattack could persist for a long time before being detected and could result in theft of sensitive data or disruption of our transaction processing systems. Our inability to use or access these information systems at critical points in time could unfavorably impact the timeliness and efficiency of our business operations.

OPERATIONAL RISK

Our business is highly reliant on third party vendors (and their vendors) and our ability to manage the operational risks associated with outsourcing those services.

We rely on third parties to provide services that are integral to our operations. These vendors provide services that support our operations, including the storage and processing of sensitive consumer and business customer data, as well as our sales efforts. A cyber security breach of a vendor's system may result in theft of our data or disruption of business processes. In most cases, we will remain primarily liable to our customers for losses arising from a breach of a vendor's data security system. We rely on our outsourced service providers to implement and maintain prudent cyber security controls. We have procedures in place to assess a vendor's cyber security controls prior to establishing a contractual relationship and to periodically review assessments of those control systems; however, these procedures are not infallible, and a vendor's system can be breached despite the procedures we employ. We cannot be sure that we will be able to maintain these relationships on favorable terms. In addition, some of our data processing services are provided by companies associated with our competitors. The loss of these vendor relationships could disrupt the services we provide to our customers and cause us to incur significant expense in connection with replacing these services.

Damage to our brand and reputation could significantly harm our business and prospects.

Our brand and reputation are important assets. Our relationship with many of our customers is predicated upon our reputation as a high-quality provider of financial services that adheres to the highest standards of ethics, service quality and regulatory compliance. We believe that our brand has been, and continues to be, well received in our industry, with current and potential customers, investors and employees. Our ability to attract and retain customers, investors and employees depends upon external perceptions of us. Damage to our reputation among existing and potential customers, investors and employees could cause significant harm to our business and prospects and may arise from numerous sources, including litigation or regulatory actions, failing to deliver minimum standards of service and quality, lending practices, inadequate protection of customer information, sales and marketing efforts, compliance failures, unethical behavior and the misconduct of employees. Adverse developments with respect to our industry may also, by association, negatively impact our reputation or result in greater regulatory or legislative scrutiny or litigation against us.

We are susceptible to fraud.

Financial institutions are inherently exposed to fraud risk. A fraud can be perpetrated by a customer, associate, vendor or member of the general public. We are most subject to fraud risk with the origination of loans, ACH and wire transactions, ATM transactions and checking transactions. Fraud risk within digital channels is challenging to detect and prevent and we are expanding our business more deeply into these channels. We rely on financial and other data from customers when we accept them as new customers and when they conduct transactions, which information could be fraudulent and expose us to losses that negatively impact our net income especially when delivered through digital channels. Our operational controls to prevent and detect such fraud may be ineffective in preventing new methods of fraud.

STRATEGIC AND OTHER BUSINESS RISKS

Involvement in non-bank business creates risks associated with the securities industry.

Umpqua Investments' retail brokerage operations present special risks not borne by financial institutions that focus exclusively on traditional community banking. For example, the brokerage industry is subject to fluctuations in the stock market that may have a significant adverse impact on transaction fees, customer activity and investment portfolio gains and losses. Likewise, additional or modified regulations may adversely affect Umpqua Investments' operations. Umpqua Investments is also dependent on a small number of established brokers, whose departure could result in the loss of a significant number of customer accounts. A significant decline in fees and commissions or trading losses suffered in the investment portfolio could adversely affect Umpqua Investments' income and potentially require the contribution of additional capital to support its operations. Umpqua Investments is subject to claim arbitration risk arising from customers who claim their investments were not suitable or that their portfolios were too actively traded. These risks increase when the market declines. The risks associated with retail brokerage may not be supported by the income generated by those operations.

The financial services industry is highly competitive.

We face pricing competition for loans and deposits. We also face competition with respect to customer convenience, product lines, accessibility of service and service capabilities. Our most direct competition comes from other banks, brokerages, mortgage companies and savings institutions, but more recently has also come from financial technology (or "fintech") companies that rely on technology to provide financial services. We also face competition from credit unions, government-sponsored enterprises, mutual fund companies, insurance companies and other non-bank businesses. The significant competition in attracting and retaining deposits and making loans, as well as providing other financial services throughout our market area may impact future earnings and growth. Our success depends, in part, on the ability to adapt products and services to evolving industry standards. There is increasing pressure to provide products and services at lower prices, which can reduce net interest income and non-interest income from fee-based products and services.

A decline in the Company's stock price or expected future cash flows, or a material adverse change in our results of operations or prospects, could result in impairment of our goodwill.

From time to time, the Company's common stock has traded at a price below its book value, including goodwill and other intangible assets. A significant and sustained decline in our stock price and market capitalization, a significant decline in our expected future cash flows, a significant adverse change in the business climate or slower growth rates could result in impairment of our goodwill. We have a significant goodwill asset on our balance sheet. If impairment was deemed to exist, a write down of goodwill would occur with a charge to earnings.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

The executive offices of Umpqua and Umpqua Investments are located at One SW Columbia Street in Portland, Oregon in office space that is leased. The Bank's headquarters, located in Roseburg, Oregon, is owned. At December 31, 2019, the Bank conducted commercial and retail banking activities at 274 locations, in Oregon, Washington, California, Idaho and Nevada, of which 110 are owned and 164 are leased. As of December 31, 2019, the Bank also operated 27 facilities for the purpose of administrative and other functions, such as back-office support, of which 2 are owned and 25 are leased. All facilities are in a good state of repair and appropriately designed for use as banking or administrative office facilities. As of December 31, 2019, Umpqua Investments leased 2 stand-alone offices from unrelated third parties and also leased space in 7 Bank stores under lease agreements based on market rates.

ITEM 3. LEGAL PROCEEDINGS.

Due to the nature of our business, we are involved in legal proceedings that arise in the ordinary course of our business. While the outcome of all of these matters is currently not determinable, we do not expect that the ultimate costs to resolve these matters will have a material adverse effect on our consolidated financial position, results of operations, or cash flows.

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable

PART II

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

(a) Our common stock is traded on The NASDAQ Global Select Market under the symbol "UMPQ." As of December 31, 2019, our common stock was held by approximately 4,419 shareholders of record, a number that does not include beneficial owners who hold shares in "street name," or shareholders from previously acquired companies that have not exchanged their stock. At December 31, 2019, a total of 1.2 million shares of unvested restricted shares were outstanding.

During 2019, Umpqua's Board of Directors approved a quarterly cash dividend of \$0.21 for each quarter. These dividends were made pursuant to our existing dividend policy and in consideration of, among other things, earnings, regulatory capital levels, the overall payout ratio and expected asset growth. We expect that the dividend rate will be reassessed on a quarterly basis by the Board of Directors in accordance with the dividend policy.

The payment of future cash dividends is at the discretion of our Board of Directors and subject to a number of factors, including results of operations, general business conditions, growth, financial condition and other factors deemed relevant by the Board of Directors. Further, our ability to pay future cash dividends is subject to certain regulatory requirements and restrictions discussed in the *Supervision and Regulation* section in Item 1 above.

We have a dividend reinvestment plan through our transfer agent that permits shareholder participants to purchase shares at the then-current market price in lieu of the receipt of cash dividends. Shares issued in connection with the dividend reinvestment plan are purchased in open market transactions.

Equity Compensation Plan Information

The following table sets forth information about equity compensation plans that provide for the award of securities or the grant of options to purchase securities to employees and directors of Umpqua and its subsidiaries and predecessors by merger that were in effect at December 31, 2019.

	Equity Compensation Plan Information		
	(A)	(B)	(C)
(shares in thousands) Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans excluding securities reflected in column (A)
Equity compensation plans approved by security holders			
2013 Incentive Plan ⁽¹⁾	663	\$ —	5,222
Equity compensation plans not approved by security holders			
Total	663	\$ —	5,222

(1) Shareholders approved the Company's 2013 Incentive Plan (the "2013 Plan") on April 16, 2013, and approved an amendment to the 2013 plan to increase the number of authorized shares at the 2016 annual meeting of shareholders. The 2013 Plan authorizes the issuance of equity awards to directors and employees and reserves 12.0 million shares of the Company's common stock for issuance under the plan (up to 6 million shares for "full value awards" as described below). With the adoption of the 2013 Plan, no additional awards will be issued from prior plans. Under the terms of the 2013 Plan, restricted stock awards generally vest ratably over a three year period and performance share awards generally cliff vest at the end of a three-year performance period. The 2013 Plan weights "full value awards" (restricted stock and performance share awards) as two shares issued from the total authorized under the 2013 Plan; we have issued only full value awards under the 2013 Plan. For purposes of column (B) above, performance share awards are excluded from the calculation. For purposes of column (C) above, the total number of shares available for future issuance under the 2013 Plan for full value awards was 2.6 million at December 31, 2019. At December 31, 2019, 663,000 performance share awards were outstanding and subject to satisfaction of performance based on the Company's total shareholder return performance or return on average tangible shareholders equity and 520,000 full value shares issued as restricted stock were outstanding, but subject to forfeiture in the event time based conditions are not met.

(b) Not applicable.

(c) The following table provides information about repurchases of common stock by the Company during the quarter ended December 31, 2019:

Period	Total number of Common Shares Purchased ⁽¹⁾	Average Price Paid per Common Share	Total Number of Shares Purchased as Part of Publicly Announced Plan ⁽²⁾	Maximum Number of Remaining Shares that May be Purchased at Period End under the Plan
10/01/19 - 10/31/19	2,008	\$ 16.17	—	9,855,429
11/01/19 - 11/30/19	475	\$ 16.40	—	9,855,429
12/01/19 - 12/31/19	—	\$ —	—	9,855,429
Total for quarter	2,483	\$ 16.21	—	

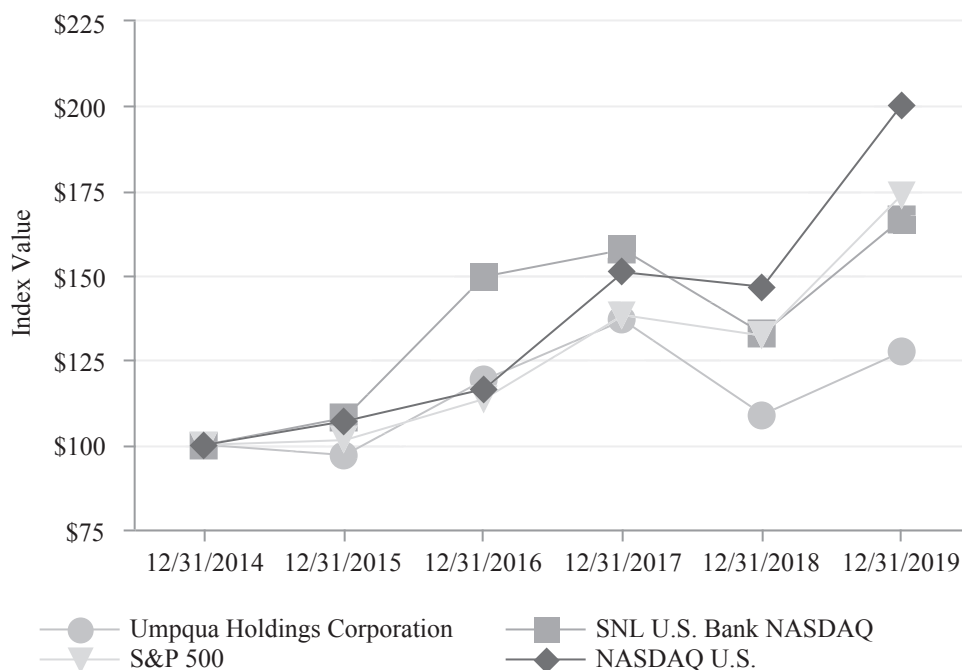
(1) Common shares repurchased by the Company during the quarter consist of cancellation of 2,483 shares to be issued upon vesting of restricted stock awards to pay withholding taxes. During the three months ended December 31, 2019, no shares were repurchased pursuant to the Company's publicly announced corporate stock repurchase plan described in (2) below.

(2) The Company's share repurchase plan, which was first approved by the Board and announced in August 2003, was amended on September 29, 2011 to increase the number of common shares available for repurchase under the plan to 15 million shares. The repurchase program has been extended multiple times by the board with the current expiration date of July 31, 2021. As of December 31, 2019, a total of 9.9 million shares remained available for repurchase. Under the repurchase plan, the Company repurchased 300,000 during 2019, 327,000 in 2018, and 325,000 in 2017. The timing and amount of future repurchases will depend upon the market price for our common stock, securities laws restricting repurchases, asset growth, earnings, and our capital plan.

Restricted shares cancelled to pay withholding taxes totaled 115,000 and 187,000 shares during the years ended December 31, 2019 and 2018, respectively.

Stock Performance Graph

The following chart, which is furnished not filed, compares the yearly percentage changes in the cumulative shareholder return on our common stock during the five fiscal years ended December 31, 2019, with (i) the Total Return Index for The NASDAQ Stock Market (U.S. Companies) (ii) the Standard and Poor's 500 and (iii) the SNL U.S. Bank NASDAQ. This comparison assumes \$100.00 was invested on December 31, 2014, in our common stock and the comparison indices, and assumes the reinvestment of all cash dividends prior to any tax effect and retention of all stock dividends. Price information from December 31, 2014 to December 31, 2019, was obtained by using the NASDAQ closing prices as of the last trading day of each year.



	Period Ending					
	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019
Umpqua Holdings Corporation	\$100.00	\$96.96	\$119.16	\$136.76	\$108.94	\$127.45
NASDAQ U.S.	\$100.00	\$106.96	\$116.45	\$150.96	\$146.67	\$200.49
S&P 500	\$100.00	\$101.38	\$113.51	\$138.29	\$132.23	\$173.86
SNL U.S. Bank NASDAQ	\$100.00	\$107.95	\$149.68	\$157.58	\$132.82	\$166.75

ITEM 6. SELECTED FINANCIAL DATA.

Umpqua Holdings Corporation Annual Financial Trends

(in thousands, except per share data)	2019	2018	2017	2016	2015
Interest income	\$ 1,131,076	\$ 1,067,149	\$ 943,901	\$ 904,163	\$ 898,044
Interest expense	210,442	128,510	78,216	66,051	58,232
Net interest income	920,634	938,639	865,685	838,112	839,812
Provision for loan and lease losses	72,515	55,905	47,254	41,674	36,589
Non-interest income	339,824	279,417	278,487	301,728	277,667
Non-interest expense	719,040	739,465	747,875	737,155	763,642
Income before provision for income taxes	468,903	422,686	349,043	361,011	317,248
Provision for income taxes	114,808	106,423	106,730	130,943	112,939
Net income	\$ 354,095	\$ 316,263	\$ 242,313	\$ 230,068	\$ 204,309

YEAR END

Assets	\$ 28,846,809	\$ 26,939,781	\$ 25,680,447	\$ 24,771,406	\$ 23,367,540
Earning assets	25,633,843	23,959,168	22,707,469	21,707,267	20,246,182
Loans and leases ⁽¹⁾	21,195,684	20,422,666	19,019,192	17,440,583	16,803,144
Deposits	22,481,504	21,137,486	19,948,300	19,020,985	17,707,189
Borrowings	906,635	751,788	802,357	852,397	888,769
Junior subordinated debentures, at fair value	274,812	300,870	277,155	262,209	255,457
Junior subordinated debentures, at amortized cost	88,496	88,724	100,609	100,931	101,254
Total shareholders' equity	4,313,915	4,056,442	3,969,367	3,875,082	3,810,493
Common shares outstanding	220,229	220,255	220,149	220,177	220,171

AVERAGE

Assets	\$ 27,971,844	\$ 26,210,933	\$ 25,074,144	\$ 24,079,753	\$ 22,872,978
Earning assets	24,843,425	23,309,013	22,112,828	20,943,045	19,675,868
Loans and leases ⁽¹⁾	20,889,769	19,562,369	18,169,449	17,190,625	15,886,964
Deposits	21,804,035	20,519,609	19,351,738	18,347,451	17,250,810
Borrowings	896,681	785,593	846,542	897,050	923,992
Junior subordinated debentures	373,253	370,518	365,196	359,003	352,872
Total shareholders' equity	4,206,380	4,002,700	3,929,566	3,856,890	3,787,962
Basic common shares outstanding	220,339	220,280	220,251	220,282	220,327
Diluted common shares outstanding	220,650	220,737	220,836	220,908	221,045

PER COMMON SHARE DATA

Basic earnings	\$ 1.61	\$ 1.44	\$ 1.10	\$ 1.04	\$ 0.93
Diluted earnings	1.60	1.43	1.10	1.04	0.92
Book value	19.59	18.42	18.03	17.60	17.31
Tangible book value ⁽²⁾	11.39	10.19	9.77	9.31	8.98
Cash dividends declared	0.84	0.82	0.68	0.64	0.62

(dollars in thousands)	2019	2018	2017	2016	2015
PERFORMANCE RATIOS					
Return on average assets ⁽³⁾	1.27%	1.21%	0.97%	0.95%	0.89%
Return on average common shareholders' equity ⁽⁴⁾	8.42%	7.90%	6.17%	5.96%	5.39%
Return on average tangible common shareholders' equity ⁽⁵⁾	14.77%	14.45%	11.49%	11.34%	10.47%
Efficiency ratio ⁽⁶⁾	56.97%	60.61%	65.11%	64.41%	68.03%
Average common shareholders' equity to average assets	15.04%	15.27%	15.67%	16.02%	16.56%
Leverage ratio ⁽⁷⁾	9.16%	9.31%	9.38%	9.21%	9.73%
Net interest margin (fully tax equivalent) ⁽⁸⁾	3.71%	4.04%	3.94%	4.02%	4.29%
Non-interest income to total net revenue ⁽⁹⁾	26.96%	22.94%	24.34%	26.47%	24.85%
Dividend payout ratio ⁽¹⁰⁾	52.17%	56.94%	61.82%	61.54%	66.67%
ASSET QUALITY					
Non-performing loans and leases ⁽¹¹⁾	\$ 64,213	\$ 87,267	\$ 82,318	\$ 56,134	\$ 44,384
Non-performing assets ⁽¹¹⁾	67,508	98,225	94,052	62,872	66,691
Allowance for loan and lease losses	157,629	144,871	140,608	133,984	130,322
Net charge-offs	59,757	51,642	40,630	38,012	22,434
Non-performing loans and leases to loans and leases	0.30%	0.43%	0.43%	0.32%	0.26%
Non-performing assets to total assets	0.23%	0.36%	0.37%	0.25%	0.29%
Allowance for loan and lease losses to total loans and leases	0.74%	0.71%	0.74%	0.77%	0.78%
Allowance for credit losses to loans and leases	0.77%	0.73%	0.76%	0.79%	0.80%
Net charge-offs to average loans and leases	0.29%	0.26%	0.22%	0.22%	0.14%

(1) Excludes loans held for sale

(2) Common shareholders' equity less intangible assets (excluding MSR) divided by shares outstanding at the end of the year. See Management's Discussion and Analysis of Financial Condition and Results of Operations-"Results of Operations - Overview" for the reconciliation of non-GAAP financial measures, in Item 7 of this report.

(3) Net income divided by average assets.

(4) Net income divided by average common shareholders' equity.

(5) Net income divided by average common shareholders' equity less average intangible assets. See Management's Discussion and Analysis of Financial Condition and Results of Operations-"Results of Operations - Overview" for the reconciliation of non-GAAP financial measures, in Item 7 of this report.

(6) Non-interest expense divided by the sum of net interest income (fully tax equivalent) and non-interest income.

(7) Tier 1 capital divided by leverage assets. Leverage assets are defined as quarterly average total assets, net of goodwill, intangibles and certain other items as required by the Federal Reserve.

(8) Net interest margin (fully tax equivalent) is calculated by dividing net interest income (fully tax equivalent) by average interest earnings assets.

(9) Non-interest income divided by the sum of non-interest income and net interest income.

(10) Dividends declared per common share divided by basic earnings per common share.

(11) Excludes government guaranteed GNMA mortgage loans that Umpqua has the right but not the obligation to repurchase that are past due 90 days or more totaling \$4.3 million, \$8.9 million, \$12.4 million, \$10.9 million and \$19.2 million, as of December 31, 2019, 2018, 2017, 2016, and 2015, respectively.

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

FORWARD LOOKING STATEMENTS AND RISK FACTORS

See the discussion of forward-looking statements and risk factors in Part I Item 1 and Item 1A of this report.

The following discussion and analysis of our financial condition and results of operations constitutes management's review of the factors that affected our financial and operating performance for the years ended December 31, 2019 and 2018. This discussion should be read in conjunction with the consolidated financial statements and notes thereto contained elsewhere in this report. For a discussion of the year ended December 31, 2017, including a comparison to the year ended December 31, 2018, see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, on Registrant's Annual Report on Form 10-K for the year ended December 31, 2018, filed with the Securities and Exchange Commission on February 21, 2019.

EXECUTIVE OVERVIEW

Significant items for the year ended December 31, 2019 were as follows:

Financial Performance

- Net income per diluted common share was \$1.60 for the year ended December 31, 2019, compared to \$1.43 for the year ended December 31, 2018.
- Net interest income was \$920.6 million for the year ended December 31, 2019, compared to \$938.6 million for the year ended December 31, 2018. The decrease in net interest income compared to the same period in the prior year was caused by interest margin compression during the year. Interest-bearing liabilities and the related costs increased, while average yields on the securities portfolio decreased. The decrease in margin was partially offset by an increase in interest-earning assets.
- Net interest margin, on a tax equivalent basis, was 3.71% for the year ended December 31, 2019, compared to 4.04% for the year ended December 31, 2018. The decrease in net interest margin compared to the same period in the prior year was driven by an increase in the cost of interest-bearing liabilities coupled with lower average yields on the securities portfolio, offset by higher average yields on the loan and lease portfolio.
- Non-interest income was \$339.8 million for the year ended December 31, 2019, compared to \$279.4 million for the year ended December 31, 2018. This increase was primarily driven by a one-time gain of \$81.9 million from the sale of Visa Inc. Class B common stock, which was partially offset by a \$7.2 million loss on the sale of debt securities and a reduction in net residential mortgage banking revenue during the year ended December 31, 2019.
- Residential mortgage banking revenue was \$101.8 million for the year ended December 31, 2019, compared to \$118.2 million for year ended December 31, 2018. The decrease for the year ended December 31, 2019 was driven by a loss on fair value of the MSR asset of \$44.8 million as compared to a loss of \$13.2 million for the same period in 2018. The decrease was offset by an increase of 8% in the originations of loans held for sale, as well as a higher gain on sale margin of 3.38%, compared to 3.09% in the same period of the prior year.
- Non-interest expense was \$719.0 million for the year ended December 31, 2019, compared to \$739.5 million for the year ended December 31, 2018. The decrease in non-interest expense compared to the same period in the prior year was driven primarily by lower professional fees, lower salaries and benefits expense, lower FDIC assessment expense, and lower occupancy and equipment expense, partially offset by a higher loss on other real estate owned (OREO);
- Total gross loans and leases were \$21.2 billion as of December 31, 2019, an increase of \$773.0 million, or 4%, compared to December 31, 2018. The increase is due to strong loan production in the residential real estate and commercial loan portfolios, partially offset by \$241.3 million in loan sales which were completed to reposition the loan portfolio.

- Total deposits were \$22.5 billion as of December 31, 2019, an increase of \$1.3 billion, or 6%, from December 31, 2018. This increase was primarily attributable to growth in time deposits, money market and demand accounts.
- Total consolidated assets were \$28.8 billion as of December 31, 2019, compared to \$26.9 billion at December 31, 2018. The increase was due to strong loan and deposit growth during the year. A portion of the increase was due to the addition of the operating lease right of use assets recorded as a result of the application of the new lease accounting standard as of January 1, 2019.

Credit Quality

- Non-performing assets decreased to \$67.5 million, or 0.23% of total assets, as of December 31, 2019, compared to \$98.2 million, or 0.36% of total assets, as of December 31, 2018. Non-performing loans were \$64.2 million, or 0.30% of total loans and leases, as of December 31, 2019, compared to \$87.3 million, or 0.43% of total loans and leases, as of December 31, 2018.
- The provision for loan and lease losses was \$72.5 million for 2019, compared to \$55.9 million for 2018. The increase was principally attributable to strong growth in the loan and lease portfolio and higher net charge-offs. Net charge-offs on loans and leases were \$59.8 million for the year ended December 31, 2019, or 0.29% of average loans and leases, compared to net charge-offs of \$51.6 million, or 0.26% of average loans and leases, for the year ended December 31, 2018.

Capital and Growth Initiatives

- The Company's total risk based capital was 14.0% and its Tier 1 common to risk weighted assets ratio was 11.2% as of December 31, 2019. As of December 31, 2018, the Company's total risk based ratio was 13.5% and its Tier 1 common to risk weighted assets ratio was 10.7%.
- Declared cash dividends of \$0.84 per common share for 2019, up from \$0.82 per common share for 2018. In addition, we repurchased 300,000 shares of common stock.
- We continue to make progress on "Umpqua Next Gen," an initiative started in late 2017 designed to modernize and evolve the Bank. We continued to focus on operational excellence, balanced growth and human-digital programs in 2019. Umpqua continued store rationalization in 2019 by consolidating 23 stores and selling an additional 4 stores. We have utilized the savings generated from store consolidations to reinvest in technology, data and analytics, new customer-focused technologies, associate training, a re-designed corporate website, digital marketing efforts, and new online account origination capabilities. The Company rolled out our "Go-To" application, the industry's first human digital banking platform earlier this year, already reaching 45,000 enrolled customers. In addition, the Bank continues to implement predictive analytics tools to assist bankers with serving their customers.

SUMMARY OF CRITICAL ACCOUNTING POLICIES

The SEC defines "critical accounting policies" as those that require application of management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in future periods. Our significant accounting policies are described in Note 1 in the *Notes to Consolidated Financial Statements* in Item 8 of this report. Not all of our significant accounting policies require management to make difficult, subjective or complex judgments or estimates. Management believes that the following policies would be considered critical under the SEC's definition.

Allowance for Loan and Lease Losses and Reserve for Unfunded Commitments

The Bank performs regular credit reviews of the loan and lease portfolio to determine the credit quality and adherence to underwriting standards. When loans and leases are originated, they are assigned a risk rating that is reassessed periodically during the term of the loan through the credit review process. The Bank's risk rating methodology assigns risk ratings ranging from 1 to 10, where a higher rating represents higher risk. The 10 risk rating categories are a primary factor in determining an appropriate amount for the allowance for loan and lease losses. The Bank has a management Allowance for Loan and Lease Losses ("ALLL") Committee, which is responsible for, among other things, regularly reviewing the ALLL methodology, including loss factors, and ensuring that it is designed and applied in accordance with generally accepted accounting principles. The ALLL Committee reviews and approves loans and leases recommended for impaired status. The ALLL Committee also approves removing loans and leases from impaired status. The Bank's Audit and Compliance Committee provides board oversight of the ALLL process and reviews the ALLL methodology on a quarterly basis.

Each risk rating is assessed an inherent credit loss factor that determines the amount of the allowance for loan and lease losses provided for that group of loans and leases with similar risk rating. Credit loss factors may vary by region based on management's belief that there may ultimately be different credit loss rates experienced in each region. Regular credit reviews of the portfolio also identify loans that are considered potentially impaired. Potentially impaired loans are referred to the ALLL Committee which reviews and approves designated loans as impaired. A loan is considered impaired when based on current information and events, we determine that we will probably not be able to collect all amounts due according to the loan contract, including scheduled interest payments. When we identify a loan as impaired, we measure the impairment using discounted cash flows, except when the sole remaining source of the repayment for the loan is the liquidation of the collateral. In these cases, we use the current fair value of the collateral, less selling costs, instead of discounted cash flows.

If we determine that the value of the impaired loan is less than the recorded investment in the loan, we either recognize an impairment reserve as a specific component to be provided for in the allowance for loan and lease losses or charge-off the impaired balance on collateral dependent loans if it is determined that such amount represents a confirmed loss. The combination of the risk rating-based allowance component and the impairment reserve allowance component lead to an allocated allowance for loan and lease losses.

The Bank may also maintain an unallocated allowance amount to provide for other credit losses inherent in a loan and lease portfolio that may not have been contemplated in the credit loss factors. This unallocated amount generally comprises less than 5% of the allowance, but may be maintained at higher levels during times of economic conditions characterized by falling real estate values. The unallocated amount is reviewed periodically based on trends in credit losses, the results of credit reviews and overall economic trends. As of December 31, 2019, there was no unallocated allowance amount.

The reserve for unfunded commitments ("RUC") is established to absorb inherent losses associated with our commitment to lend funds, such as with a letter or line of credit. The adequacy of the ALLL and RUC are monitored on a regular basis and are based on management's evaluation of numerous factors. These factors include the quality of the current loan portfolio; the trend in the loan portfolio's risk ratings; current economic conditions; loan concentrations; loan growth rates; past-due and non-performing trends; evaluation of specific loss estimates for all significant problem loans; historical charge-off and recovery experience; and other pertinent information.

Management believes that the ALLL was adequate as of December 31, 2019. There is, however, no assurance that future loan losses will not exceed the levels provided for in the ALLL and could possibly result in additional charges to the provision for loan and lease losses. In addition, as of January 1, 2020, the Company has adopted Accounting Standards Update No. 2016-13, Financial Instruments —Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, which is commonly referred to as "CECL." This accounting change will have a significant impact on how our allowance for credit losses is calculated, as well as the related disclosures. Refer to Note 1 of the Financial Statements included in Part 8 for additional discussion of the expected impact of adoption of CECL.

Residential Mortgage Servicing Rights ("MSR")

The Company determines its classes of servicing assets based on the asset type being serviced along with the methods used to manage the risk inherent in the servicing assets, which includes the market inputs used to value the servicing assets. The Company measures its residential mortgage servicing assets at fair value and reports changes in fair value through earnings. Fair value adjustments encompass market-driven valuation changes and the runoff in value that occurs from the passage of time, which are separately reported. Under the fair value method, the MSR is carried in the balance sheet at fair value and the changes in fair value are reported in earnings in residential mortgage banking revenue in the period in which the change occurs.

Retained mortgage servicing rights are measured at fair value as of the date of the related loan sale. We use quoted market prices when available. Subsequent fair value measurements are determined using a discounted cash flow model. In order to determine the fair value of the MSR, the present value of expected net future cash flows is estimated. Assumptions used include market discount rates, anticipated prepayment speeds, delinquency and foreclosure rates, and ancillary fee income net of servicing costs. This model is periodically validated by an independent model validation group. The model assumptions and the MSR fair value estimates are also compared to observable trades of similar portfolios as well as to MSR broker valuations and industry surveys, as available.

Valuation of Goodwill

Goodwill is not amortized but instead is periodically tested for impairment on an annual basis. Additionally, events or circumstances are analyzed on an interim basis to determine if there is an indication of a potential impairment. The impairment analysis requires management to make subjective judgments. Events and factors that may significantly affect the estimates include, among others, competitive forces, customer behaviors and attrition, changes in revenue growth trends, cost structures, technology, changes in discount rates and specific industry and market conditions. There can be no assurance that changes in circumstances, estimates or assumptions may result in additional impairment of all, or some portion of, goodwill.

In 2019, the Company elected to change the date of the annual goodwill impairment analysis to October 31 from the previous date of December 31. The Company determined that the date change allows for additional resources and time to analyze the factors that could affect goodwill prior to financial statement reporting. The Company performs its analysis of goodwill at the reporting unit level analyzing any factors that would impact the estimated fair value of the reporting unit compared to its carrying value. Goodwill is allocated between the reporting units of Wholesale Bank, Retail Bank, and Wealth Management. The Company first assesses qualitative factors to determine whether the existence of events and circumstances indicated that it is more likely than not that goodwill is impaired. If the qualitative assessment results indicate that it is more likely than not that the fair value of any reporting unit is less than its carrying amount, then the quantitative impairment test is performed. Various valuation methodologies are considered when completing the quantitative impairment test to determine the estimated fair value of the reporting unit which is then compared to its carrying value, including goodwill. If the fair value of the reporting unit is less than its carrying amount, an impairment charge would be taken for the amount by which the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill allocated to the reporting unit. Upon completing the annual analysis, the Company determined that no impairment was indicated for goodwill held at any of the reporting units.

Fair Value

A hierarchical disclosure framework associated with the level of pricing observability is utilized in measuring financial instruments at fair value. The degree of judgment utilized in measuring the fair value of financial instruments generally correlates to the level of pricing observability. Financial instruments with readily available active quoted prices or for which fair value can be measured from actively quoted prices generally will have a higher degree of pricing observability and a lesser degree of judgment utilized in measuring fair value. Conversely, financial instruments rarely traded or not quoted will generally have little or no pricing observability and a higher degree of judgment utilized in measuring fair value. Pricing observability is impacted by a number of factors, including the type of financial instrument, whether the financial instrument is new to the market and not yet established and the characteristics specific to the transaction.

RECENT ACCOUNTING PRONOUNCEMENTS

Information regarding Recent Accounting Pronouncements is included in Note 1 of the *Notes to Consolidated Financial Statements* in Item 8 below.

RESULTS OF OPERATIONS

For the year ended December 31, 2019, net income was \$354.1 million, or \$1.60 per diluted common share, compared to net income of \$316.3 million, or \$1.43 per diluted common share for the year ended December 31, 2018. The increase in net income in 2019 is principally attributable to an increase in non-interest income and a decrease in non-interest expense, offset by a decrease in net interest income and an increase in the provision for loan and lease losses. The increase in non-interest income was driven by a one-time gain on sale of Visa Inc. Class B common stock held by the Company, partially offset by a decrease in residential mortgage banking revenue and a loss on the sale of debt securities during the period. The decrease in non-interest expense was driven by a reduction in professional fees, lower salaries and benefits expense, resulting from the Company's operational excellence initiatives, lower occupancy and equipment expense resulting from the reduction in the number of store locations, as well as lower FDIC assessments, offset by higher losses on other real estate owned. The decrease in net interest income was driven by higher cost of funds, due to competitive rates and pricing specials on the deposit portfolio, as well as lower average yields on the securities portfolios, offset by higher volume and average yields on the loan and lease portfolio. The increase in the provision for loan and lease losses is primarily attributable to growth in the loan and lease portfolio, as well as an increase in net charge-offs.

The following table presents the returns on average assets, average common shareholders' equity and average tangible common shareholders' equity for the years ended December 31, 2019, 2018, and 2017. For each of the periods presented, the table includes the calculated ratios based on reported net income. Our return on average common shareholders' equity is negatively impacted as the result of capital required to support goodwill. To the extent this performance metric is used to compare our performance with other financial institutions that do not have merger and acquisition-related intangible assets, we believe it is beneficial to also consider the return on average tangible common shareholders' equity. The return on average tangible common shareholders' equity is calculated by dividing net income by average shareholders' common equity less average goodwill and intangible assets, net (excluding MSRs). The return on average tangible common shareholders' equity is considered a non-GAAP financial measure and should be viewed in conjunction with the return on average common shareholders' equity.

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

For the Years Ended December 31, 2019, 2018, and 2017

(dollars in thousands)	<u>2019</u>	<u>2018</u>	<u>2017</u>
Return on average assets	1.27 %	1.21 %	0.97 %
Return on average common shareholders' equity	8.42 %	7.90 %	6.17 %
Return on average tangible common shareholders' equity	14.77 %	14.45 %	11.49 %
Calculation of average common tangible shareholders' equity:			
Average common shareholders' equity	\$ 4,206,380	\$ 4,002,700	\$ 3,929,566
Less: average goodwill and other intangible assets, net	(1,808,879)	(1,814,756)	(1,821,223)
Average tangible common shareholders' equity	<u>\$ 2,397,501</u>	<u>\$ 2,187,944</u>	<u>\$ 2,108,343</u>

Additionally, management believes *tangible common equity* and the *tangible common equity ratio* are meaningful measures of capital adequacy. Umpqua believes the exclusion of certain intangible assets in the computation of tangible common equity and tangible common equity ratio provides a meaningful base for period-to-period and company-to-company comparisons, which management believes will assist investors in analyzing the operating results and capital of the Company. Tangible common equity is calculated as total shareholders' equity less preferred stock and less goodwill and other intangible assets, net (excluding MSRs). In addition, tangible assets are total assets less goodwill and other intangible assets, net (excluding MSRs). The tangible common equity ratio is calculated as tangible common shareholders' equity divided by tangible assets. The tangible common equity and tangible common equity ratio is considered a non-GAAP financial measure and should be viewed in conjunction with the total shareholders' equity and the total shareholders' equity ratio.

The following table provides a reconciliation of ending shareholders' equity (GAAP) to ending tangible common equity (non-GAAP), and ending assets (GAAP) to ending tangible assets (non-GAAP) as of December 31, 2019 and 2018:

(dollars in thousands)	December 31, 2019	December 31, 2018
Total shareholders' equity	\$ 4,313,915	\$ 4,056,442
Subtract:		
Goodwill	1,787,651	1,787,651
Other intangible assets, net	18,346	23,964
Tangible common shareholders' equity	<u>\$ 2,507,918</u>	<u>\$ 2,244,827</u>
Total assets	\$ 28,846,809	\$ 26,939,781
Subtract:		
Goodwill	1,787,651	1,787,651
Other intangible assets, net	18,346	23,964
Tangible assets	<u>\$ 27,040,812</u>	<u>\$ 25,128,166</u>
Tangible common equity ratio	9.27 %	8.93 %

Non-GAAP financial measures have inherent limitations, are not required to be uniformly applied, and are not audited. Although we believe these non-GAAP financial measures are frequently used by stakeholders in the evaluation of a company, they have limitations as analytical tools, and should not be considered in isolation or as a substitute for analyses of results as reported under GAAP.

NET INTEREST INCOME

Net interest income is the largest source of our income. Net interest income for 2019 was \$920.6 million, a decrease of \$18.0 million or 2% compared to the same period in 2018. The decrease in net interest income in 2019 compared to 2018 was driven by growth in interest-bearing liabilities and an increase in the average cost of funds due to competitive rates and pricing specials on the deposit portfolio, as well as lower average yields on the securities portfolio. The decrease was partially offset by the higher yields and growth in the loan and lease portfolio.

The net interest margin (net interest income as a percentage of average interest-earning assets) on a fully tax equivalent basis was 3.71% for 2019, a decrease of 33 basis points compared to 2018. The decrease in the net interest margin primarily resulted from an increase in the cost of interest-bearing liabilities and lower average yields on the securities portfolio, which was partially offset by higher average balances and yields for the loan and lease portfolio. The total cost of interest-bearing liabilities for 2019 was 1.26%, representing an increase of 42 basis points compared to 2018. The cost of time deposits was 2.17% in 2019 compared to 1.57% in 2018, reflecting significant growth of the time deposit portfolio driven by promotional retail offers and brokered time deposits. The yield on loans and leases for 2019 increased by 6 basis points compared to 2018 and the average balance of loans and leases increased by \$1.3 billion over the same period.

Our net interest income is affected by changes in the amount and mix of interest-earning assets and interest-bearing liabilities, as well as changes in the yields earned on interest-earning assets and rates paid on deposits and borrowed funds. The following table presents condensed average balance sheet information, together with interest income and yields on average interest-earning assets, and interest expense and rates paid on average interest-bearing liabilities for years ended December 31, 2019, 2018 and 2017:

(dollars in thousands)	2019			2018			2017		
	Average Balance	Interest Income or Expense	Average Yields or Rates	Average Balance	Interest Income or Expense	Average Yields or Rates	Average Balance	Interest Income or Expense	Average Yields or Rates
INTEREST-EARNING ASSETS:									
Loans held for sale	\$ 299,560	\$ 14,477	4.83%	\$ 288,288	\$ 14,475	5.02%	\$ 383,802	\$ 14,374	3.75%
Loans and leases ⁽¹⁾	20,889,769	1,036,600	4.96%	19,562,369	957,639	4.90%	18,169,449	856,944	4.72%
Taxable securities	2,701,821	58,419	2.16%	2,729,950	78,002	2.86%	2,851,136	59,478	2.09%
Non-taxable securities ⁽²⁾	264,017	8,971	3.40%	281,906	10,316	3.66%	286,605	13,244	4.62%
Temporary investments and interest-bearing deposits	688,258	14,180	2.06%	446,500	8,665	1.94%	421,836	4,380	1.04%
Total interest earning assets	24,843,425	1,132,647	4.56%	23,309,013	1,069,097	4.59%	22,112,828	948,420	4.29%
Other assets	3,128,419			2,901,920			2,961,316		
Total assets	<u>\$27,971,844</u>			<u>\$26,210,933</u>			<u>\$ 25,074,144</u>		
INTEREST-BEARING LIABILITIES:									
Interest-bearing demand deposits	\$ 2,365,845	\$ 12,040	0.51%	\$ 2,333,662	\$ 7,675	0.33%	\$ 2,322,194	\$ 3,725	0.16%
Money market deposits	6,740,502	56,633	0.84%	6,438,175	27,599	0.43%	6,741,983	13,069	0.19%
Savings deposits	1,467,263	1,746	0.12%	1,473,134	1,356	0.09%	1,412,039	699	0.05%
Time deposits	4,483,818	97,522	2.17%	3,575,526	56,055	1.57%	2,672,687	28,089	1.05%
Total interest-bearing deposits	15,057,428	167,941	1.12%	13,820,497	92,685	0.67%	13,148,903	45,582	0.35%
Repurchase agreements and federal funds purchased	319,723	2,092	0.65%	287,767	506	0.18%	344,200	475	0.14%
Borrowings	896,681	17,564	1.96%	785,593	13,604	1.73%	846,542	14,159	1.67%
Junior subordinated debentures	373,253	22,845	6.12%	370,518	21,715	5.86%	365,196	18,000	4.93%
Total interest-bearing liabilities	16,647,085	210,442	1.26%	15,264,375	128,510	0.84%	14,704,841	78,216	0.53%
Non-interest-bearing deposits	6,746,607			6,699,112			6,202,835		
Other liabilities	371,772			244,746			236,902		
Total liabilities	23,765,464			22,208,233			21,144,578		
Common equity	4,206,380			4,002,700			3,929,566		
Total liabilities and shareholders' equity	<u>\$27,971,844</u>			<u>\$26,210,933</u>			<u>\$ 25,074,144</u>		
NET INTEREST INCOME		<u>\$ 922,205</u>			<u>\$ 940,587</u>			<u>\$870,204</u>	
NET INTEREST SPREAD			<u>3.30%</u>			<u>3.75%</u>			<u>3.76%</u>
NET INTEREST INCOME TO EARNING ASSETS OR NET INTEREST MARGIN ^{(1),(2)}			<u>3.71%</u>			<u>4.04%</u>			<u>3.94%</u>

(1) Non-accrual loans and leases are included in the average balance.

(2) Tax-exempt income has been adjusted to a tax equivalent basis at a 21% tax rate for 2019 and 2018 and a 35% tax rate for 2017. The amount of such adjustment was an addition to recorded income of approximately \$1.6 million, \$1.9 million, and \$4.5 million for the years ended 2019, 2018, and 2017, respectively.

The following table sets forth a summary of the changes in tax equivalent net interest income due to changes in average asset and liability balances (volume) and changes in average rates (rate) for 2019 compared to 2018. Changes in tax equivalent interest income and expense, which are not attributable specifically to either volume or rate, are allocated proportionately between both variances.

(in thousands)	2019 compared to 2018			2018 compared to 2017		
	Increase (decrease) in interest income and expense due to changes in			Increase (decrease) in interest income and expense due to changes in		
	Volume	Rate	Total	Volume	Rate	Total
Interest-earning assets:						
Loans held for sale	\$ 555	\$ (553)	\$ 2	\$ (4,091)	\$ 4,192	\$ 101
Loans and leases	65,707	13,254	78,961	67,363	33,332	100,695
Taxable securities	(795)	(18,788)	(19,583)	(2,624)	21,148	18,524
Non-taxable securities ⁽¹⁾	(633)	(712)	(1,345)	(214)	(2,714)	(2,928)
Temporary investments and interest bearing deposits	4,949	566	5,515	270	4,015	4,285
Total interest-earning assets ⁽¹⁾	69,783	(6,233)	63,550	60,704	59,973	120,677
Interest-bearing liabilities:						
Interest bearing demand	107	4,258	4,365	18	3,932	3,950
Money market	1,354	27,680	29,034	(615)	15,145	14,530
Savings	(5)	395	390	31	626	657
Time deposits	16,425	25,042	41,467	11,389	16,577	27,966
Repurchase agreements and federal funds	403	1,183	1,586	(86)	117	31
Borrowings	2,055	1,905	3,960	(1,043)	488	(555)
Junior subordinated debentures	161	969	1,130	266	3,449	3,715
Total interest-bearing liabilities	20,500	61,432	81,932	9,960	40,334	50,294
Net increase (decrease) in net interest income ⁽¹⁾	\$ 49,283	\$ (67,665)	\$ (18,382)	\$ 50,744	\$ 19,639	\$ 70,383

⁽¹⁾ Tax exempt income has been adjusted to a tax equivalent basis at a 21% tax rate for 2019 and 2018 and a 35% tax rate for 2017.

PROVISION FOR LOAN AND LEASE LOSSES

The provision for loan and lease losses was \$72.5 million for 2019, compared to \$55.9 million for 2018. As a percentage of average outstanding loans and leases, the provision for loan and lease losses recorded for 2019 was 0.35%, an increase of 6 basis points from 2018.

The increase in the provision for loan and lease losses in 2019 compared to 2018 is primarily attributable to strong growth in the loan portfolio, as well as an increase in net charge-offs. The loan portfolio increased by \$773.0 million, or 4%, since December 31, 2018. Net-charge offs were \$59.8 million for 2019, or 0.29% of average loans and leases, compared to net charge-offs of \$51.6 million, or 0.26% of average loans and leases, for 2018. The majority of net charge-offs relate to losses realized in the lease and equipment finance portfolio, which is included in the commercial loan portfolio.

The Company generally recognizes the charge-off of impairment reserves on impaired loans in the period they arise for collateral dependent loans. Therefore, the non-accrual loans of \$26.2 million as of December 31, 2019 have already been written-down to their estimated fair value, less estimated costs to sell, and are expected to be resolved with no additional material loss, absent further decline in market prices.

NON-INTEREST INCOME

Non-interest income for 2019 was \$339.8 million, an increase of \$60.4 million, or 22%, compared to the same period in 2018. The following table presents the key components of non-interest income for years ended December 31, 2019 and 2018:

(dollars in thousands)	2019 compared to 2018			
	2019	2018	Change Amount	Change Percent
Service charges on deposits	\$ 64,514	\$ 62,124	\$ 2,390	4 %
Brokerage revenue	15,877	16,480	(603)	(4)%
Residential mortgage banking revenue, net	101,810	118,235	(16,425)	(14)%
(Loss) gain on sale of debt securities, net	(7,184)	14	(7,198)	nm
Gain (loss) on equity securities, net	83,475	(1,484)	84,959	nm
Gain on loan and lease sales, net	10,467	7,834	2,633	34 %
BOLI income	8,406	8,297	109	1 %
Other income	62,459	67,917	(5,458)	(8)%
Total non-interest income	<u>\$ 339,824</u>	<u>\$ 279,417</u>	<u>\$ 60,407</u>	<u>22 %</u>

nm = not meaningful

Service charges on deposits for the year ended December 31, 2019, increased \$2.4 million due to an increase in analyzed account fees during the period, as a result of the focus on full relationship banking during the period.

The following table presents our residential mortgage banking revenues for the years ended December 31, 2019 and 2018:

(in thousands)	2019	2018
Origination and sale	\$ 104,394	\$ 88,644
Servicing	42,199	42,786
Change in fair value of MSR asset:		
Changes due to collection/realization of expected cash flows over time	(25,408)	(24,533)
Changes in valuation inputs or assumptions ⁽¹⁾	(19,375)	11,338
Balance, end of period	<u>\$ 101,810</u>	<u>\$ 118,235</u>

⁽¹⁾ The changes in valuation inputs and assumptions principally reflect changes in discount rates and prepayment speeds, which are primarily affected by changes in interest rates.

Residential mortgage banking revenue for the year ended December 31, 2019, as compared to the same period of 2018 decreased by \$16.4 million. The decrease was the result of a higher loss on fair value of the MSR asset of \$44.8 million as compared to a loss on fair value of \$13.2 million for the same period in 2018. The decrease was offset partially by an increase in closed loans for sale volume of 8% as compared to the prior period, as well as an increase in the gain on sale margin to 3.38%, compared to 3.09% in 2018. Despite increased production, servicing income within mortgage banking revenues was relatively flat, due to the sale of a portion of the MSR asset in the fourth quarter of 2019.

The loss on sale of debt securities for the period ended December 31, 2019 compared to 2018, increased \$7.2 million as compared to the same period of the prior year, due to a strategic restructuring of our available for sale debt securities portfolio to reduce interest rate sensitivity for a potentially decreasing interest rate environment.

The gain on equity securities of \$83.5 million for the year ended December 31, 2019, compared to a loss of \$1.5 million during the same period in the prior year, was primarily due to the one-time gain on sale of all of the owned shares of Visa Inc. Class B common stock held by the Company during the second quarter of 2019.

The Company sells government guaranteed loans on a recurring basis to provide a diversified source of noninterest income. Gain on sales of government guaranteed loans contributed \$6.4 million and \$5.7 million, respectively, for the years ended December 31, 2019 and 2018. Additionally, the Company sells portfolio loans to take advantage of opportunistic pricing, dispose of criticized or potential problem loans, manage portfolio concentrations to internal policies, or for other strategic purposes, which causes the gain on sale of loans to fluctuate year over year, depending on this activity.

Other income in 2019 compared to 2018 decreased by \$5.5 million, the decrease was primarily due to the one-time gain of \$5.8 million related to the sale of substantially all of the assets of Pivotal in 2018. In addition, other income decreased due to a decline in the swap derivative fair value of \$4.7 million attributable to the decrease in long-term interest rates during the period, offset by an increase of swap related other income of \$3.1 million and an increase in rabbi trust investment income of \$2.4 million during the period.

NON-INTEREST EXPENSE

Non-interest expense for 2019 was \$719.0 million, a decrease of \$20.4 million, or 3%, compared to 2018. The following table presents the key elements of non-interest expense for the years ended December 31, 2019 and 2018:

(dollars in thousands)	2019 compared to 2018			
	2019	2018	Change Amount	Change Percent
Salaries and employee benefits	\$ 420,373	\$ 425,575	\$ (5,202)	(1)%
Occupancy and equipment, net	144,236	148,724	(4,488)	(3)%
Communications	14,583	17,233	(2,650)	(15)%
Marketing	13,255	11,313	1,942	17 %
Services	54,111	62,730	(8,619)	(14)%
FDIC assessments	11,233	16,094	(4,861)	(30)%
Loss on other real estate owned, net	3,863	867	2,996	346 %
Intangible amortization	5,618	6,166	(548)	(9)%
Other expenses	51,768	50,763	1,005	2 %
Total non-interest expense	<u>\$ 719,040</u>	<u>\$ 739,465</u>	<u>\$ (20,425)</u>	(3)%

Salaries and employee benefits costs decreased \$5.2 million for 2019 compared to the prior year. The decrease in salaries and employee benefits is primarily related to lower compensation, payroll taxes, and employee severance, resulting from the Company's operational efficiency initiatives, as well as lower group insurance rates during the period offset by an increase in home lending compensation of \$7.3 million related to higher originations during the period.

Occupancy and equipment expense decreased by \$4.5 million in 2019 compared to the prior year as a result of the reduction in the number of store locations, offset by additional software expense during the periods.

Communications costs decreased by \$2.7 million in 2019 compared to 2018 due to a decrease in data processing costs as the Company has executed on its operational expenditure initiatives, including improved procurement and contract renegotiation, as well as fewer stores in the footprint.

Marketing expense increased by \$1.9 million in 2019 compared to 2018, due to the marketing efforts to drive our strategic initiatives, including to gain traction with wholesale and middle-market customers and to promote our Go-To app, as well as digital marketing for new customers.

Services expense decreased by \$8.6 million in 2019 compared to 2018, primarily related to lower consulting fees in the current period, as the consulting fees to assist with the identification and implementation of organizational simplification and efficiencies in 2018 did not recur in 2019.

FDIC assessments decreased by \$4.9 million for the year ended December 31, 2019, due to the discontinuation of the large-institution surcharge that had been included in the assessment in the prior periods.

The loss on other real estate owned increased by \$3.0 million, due mainly to valuation adjustments and subsequent loss on the sale of one OREO property.

INCOME TAXES

Our consolidated effective tax rate as a percentage of pre-tax income for 2019 was 24.5%, compared to 25.2% for 2018. The 2019 effective tax rate differed from the federal statutory rate of 21% principally because of state taxes, tax-exempt income, non-taxable income arising from bank owned life insurance and nondeductible FDIC premiums.

FINANCIAL CONDITION

INVESTMENT SECURITIES

The composition of our investment securities portfolio reflects management's investment strategy of maintaining an appropriate level of liquidity while providing a relatively stable source of interest income. The investment securities portfolio also mitigates interest rate and credit risk inherent in the loan portfolio, while providing a vehicle for the investment of available funds, a source of liquidity (by pledging as collateral or through repurchase agreements) and collateral for certain public funds deposits.

Equity and other securities consist primarily of investments in fixed income mutual funds to support our Community Reinvestment Act ("CRA") initiatives and securities invested in trust for the benefit of certain executives or former employees of acquired institutions as required by agreements. Equity and other securities were \$80.2 million at December 31, 2019, compared to \$61.8 million at December 31, 2018. This increase is due to additional investments in CRA-qualified mutual funds initiatives during the period.

Investment securities available for sale were \$2.8 billion as of December 31, 2019, compared to \$3.0 billion at December 31, 2018. The decrease is due to sales and paydowns of \$918.7 million, offset partially by purchases of \$698.0 million of investment securities and an increase in fair value of investment securities available for sale of \$93.2 million.

Investment securities held to maturity were \$3.3 million as of December 31, 2019, compared to holdings of \$3.6 million at December 31, 2018. The change relates to paydowns and maturities of investment securities held to maturity.

The following table presents the available for sale and held to maturity debt securities portfolio by major type as of December 31, 2019, 2018 and 2017:

(in thousands)	<u>December 31, 2019</u>	<u>December 31, 2018</u>	<u>December 31, 2017</u>
Available for sale:			
U.S. Treasury and agencies	\$ 643,604	\$ 39,656	\$ 39,698
Obligations of states and political subdivisions	261,094	309,171	308,456
Residential mortgage-backed securities and collateralized mortgage obligations	1,909,984	2,628,281	2,665,645
Investments in mutual funds and other equity securities	—	—	51,970
Total available for sale securities	<u>\$ 2,814,682</u>	<u>\$ 2,977,108</u>	<u>\$ 3,065,769</u>
Held to maturity:			
Residential mortgage-backed securities and collateralized mortgage obligations	\$ 3,260	\$ 3,606	\$ 3,803
Total held to maturity securities	<u>\$ 3,260</u>	<u>\$ 3,606</u>	<u>\$ 3,803</u>

The following table presents information regarding the amortized cost, fair value, average yield and maturity structure of the investment portfolio at December 31, 2019:

(dollars in thousands)	Amortized Cost	Fair Value	Average Yield⁽¹⁾
U.S. treasury and agencies			
One year or less	\$ 19,999	\$ 19,996	1.63 %
One to five years	601,263	602,535	2.13 %
Over ten years	20,747	21,073	2.60 %
Total U.S. treasury and agencies	<u>642,009</u>	<u>643,604</u>	2.13 %
Obligations of states and political subdivisions			
One year or less	27,645	27,911	4.48 %
One to five years	89,216	91,847	3.48 %
Five to ten years	121,091	126,899	3.37 %
Over ten years	13,579	14,437	3.75 %
Total obligations of states and political subdivisions	<u>251,531</u>	<u>261,094</u>	3.55 %
Other Securities			
Residential mortgage-backed securities and collateralized mortgage obligations	1,899,968	1,914,247	2.40 %
Total debt securities	<u>\$ 2,793,508</u>	<u>\$ 2,818,945</u>	2.44 %

⁽¹⁾ Weighted average yields are stated on a federal tax-equivalent basis of 21%. Weighted average yields for available for sale investments have been calculated on an amortized cost basis.

The mortgage-related securities in the table above include both pooled mortgage-backed issues and high-quality collateralized mortgage obligation structures, with an average duration of 4.0 years. These mortgage-related securities provide yield spread to U.S. Treasury or agency securities; however, the cash flows arising from them can be volatile due to refinancing of the underlying mortgage loans.

We review investment securities on an ongoing basis for the presence of other-than-temporary impairment ("OTTI") or permanent impairment, taking into consideration current market conditions, fair value in relationship to cost, extent and nature of the change in fair value, issuer rating changes and trends, whether we intend to sell a security or if it is more likely than not that we will be required to sell the security before recovery of our amortized cost basis of the investment, which may be maturity, and other factors.

Gross unrealized losses in the available for sale investment portfolio was \$10.0 million at December 31, 2019. This consisted primarily of unrealized losses on residential mortgage-backed securities and collateralized mortgage obligations of \$5.7 million. The unrealized losses were primarily caused by interest rate increases subsequent to the purchase of the securities, and not credit quality. In the opinion of management, these securities are considered only temporarily impaired due to changes in market interest rates or the widening of market spreads subsequent to the initial purchase of the securities, and not due to concerns regarding the underlying credit of the issuers or the underlying collateral.

During 2019, the Company completed a strategic restructuring of a portion of the available for sale debt securities portfolio. This restructuring resulted in the sale of certain securities with a book value of \$393.3 million at a gross loss of \$7.3 million. This was a tactical effort to reduce interest rate sensitivity for a potentially decreasing interest rate environment. The sales were primarily residential mortgage-backed securities and collateralized mortgage obligations and the purchases were non-callable agency bonds. The transaction resulted in an increased duration of the overall investment securities portfolio and a reduction in the portion of investments subject to prepayment.

RESTRICTED EQUITY SECURITIES

Restricted equity securities were \$46.5 million and \$40.3 million at December 31, 2019 and 2018, respectively, the majority of which represents the Bank's investment in the Federal Home Loan Bank ("FHLB") of Des Moines. The increase is attributable to purchases of FHLB stock during the period due to additional borrowing activity. FHLB stock is carried at par and does not have a readily determinable fair value. Ownership of FHLB stock is restricted to the FHLB and member institutions, and can only be purchased and redeemed at par.

LOANS AND LEASES

Total loans and leases outstanding at December 31, 2019 were \$21.2 billion, an increase of \$773.0 million compared to year-end 2018. This increase is principally attributable to net new loan and lease originations of \$1.1 billion, partially offset by loans sold of \$241.3 million and charge-offs of \$75.7 million.

The following table presents the composition of the loan and lease portfolio, net of deferred fees and costs, as of December 31 for each of the last five years:

(dollars in thousands)	December 31, 2019		December 31, 2018		December 31, 2017		December 31, 2016		December 31, 2015	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Commercial real estate, net	\$10,424,178	49.2 %	\$10,291,343	50.4 %	\$ 9,727,104	51.1 %	\$ 9,345,489	53.5 %	\$ 9,285,611	55.3 %
Commercial, net	4,910,699	23.2 %	4,732,603	23.1 %	4,278,703	22.4 %	3,576,446	20.5 %	3,174,574	18.9 %
Residential, net	5,452,936	25.7 %	4,811,550	23.6 %	4,280,765	22.5 %	3,882,022	22.3 %	3,818,204	22.7 %
Consumer & other, net	407,871	1.9 %	587,170	2.9 %	732,620	4.0 %	636,626	3.7 %	524,755	3.1 %
Total loans and leases, net	<u>\$21,195,684</u>	<u>100.0 %</u>	<u>\$20,422,666</u>	<u>100.0 %</u>	<u>\$19,019,192</u>	<u>100.0 %</u>	<u>\$17,440,583</u>	<u>100.0 %</u>	<u>\$16,803,144</u>	<u>100.0 %</u>

The following table presents the concentration distribution of our loan and lease portfolio by major type as of December 31, 2019 and 2018:

(dollars in thousands)	December 31, 2019		December 31, 2018	
	Amount	Percentage	Amount	Percentage
Commercial real estate				
Non-owner occupied term, net	\$ 3,545,566	16.7 %	\$ 3,573,065	17.5 %
Owner occupied term, net	2,496,088	11.8 %	2,480,371	12.1 %
Multifamily, net	3,514,774	16.6 %	3,304,763	16.2 %
Construction & development, net	678,740	3.2 %	736,254	3.6 %
Residential development, net	189,010	0.9 %	196,890	1.0 %
Commercial				
Term, net	2,232,817	10.5 %	2,232,923	10.9 %
Lines of credit & other, net	1,212,393	5.7 %	1,169,525	5.7 %
Leases & equipment finance, net	1,465,489	7.0 %	1,330,155	6.5 %
Residential				
Mortgage, net	4,215,424	19.9 %	3,635,073	17.8 %
Home equity loans & lines, net	1,237,512	5.8 %	1,176,477	5.8 %
Consumer & other, net	407,871	1.9 %	587,170	2.9 %
Total, net of deferred fees and costs	<u>\$ 21,195,684</u>	<u>100.0 %</u>	<u>\$ 20,422,666</u>	<u>100.0 %</u>

The following table presents the maturity distribution of our commercial real estate and commercial loan portfolios and the rate sensitivity of these loans to changes in interest rates as of December 31, 2019:

(in thousands)	By Maturity			Total	Loans Over One Year by Rate Sensitivity	
	One Year or Less	One Through Five Years	Over Five Years		Fixed Rate	Floating Rate
Commercial real estate	\$ 750,860	\$ 1,768,910	\$ 7,904,408	\$10,424,178	\$ 1,180,482	\$ 8,492,836
Commercial ⁽¹⁾	\$ 1,671,540	\$ 985,220	\$ 788,450	\$ 3,445,210	\$ 668,347	\$ 1,105,323

⁽¹⁾ Excludes the lease and equipment finance portfolio.

ASSET QUALITY AND NON-PERFORMING ASSETS

The following table summarizes our non-performing assets and restructured loans, as of December 31 for each of the last five years:

(dollars in thousands)	December 31, 2019	December 31, 2018	December 31, 2017	December 31, 2016	December 31, 2015
Loans and leases on non-accrual status	\$ 26,244	\$ 50,823	\$ 51,355	\$ 27,765	\$ 29,215
Loans and leases past due 90 days or more and accruing ⁽¹⁾	37,969	36,444	30,963	28,369	15,169
Total non-performing loans and leases	64,213	87,267	82,318	56,134	44,384
Other real estate owned	3,295	10,958	11,734	6,738	22,307
Total non-performing assets	\$ 67,508	\$ 98,225	\$ 94,052	\$ 62,872	\$ 66,691
Restructured loans ⁽²⁾	\$ 18,576	\$ 13,924	\$ 32,168	\$ 40,667	\$ 31,355
Allowance for loan and lease losses	\$ 157,629	\$ 144,871	\$ 140,608	\$ 133,984	\$ 130,322
Reserve for unfunded commitments	5,106	4,523	3,963	3,611	3,574
Allowance for credit losses	\$ 162,735	\$ 149,394	\$ 144,571	\$ 137,595	\$ 133,896
Asset quality ratios:					
Non-performing assets to total assets	0.23 %	0.36 %	0.37 %	0.25 %	0.29 %
Non-performing loans and leases to total loans and leases	0.30 %	0.43 %	0.43 %	0.32 %	0.26 %
Allowance for loan and lease losses to total loans and leases	0.74 %	0.71 %	0.74 %	0.77 %	0.78 %
Allowance for credit losses to total loans and leases	0.77 %	0.73 %	0.76 %	0.79 %	0.80 %
Allowance for credit losses to total non-performing loans and leases	253 %	171 %	176 %	245 %	302 %

⁽¹⁾ Excludes government guaranteed GNMA mortgage loans that Umpqua has the right but not the obligation to repurchase that are past due 90 days or more totaling \$4.3 million, \$8.9 million, \$12.4 million, \$10.9 million and \$19.2 million, as of December 31, 2019, 2018, 2017, 2016, and 2015, respectively.

⁽²⁾ Represents accruing restructured loans performing according to their restructured terms.

The purchased non-credit impaired loans had remaining discount that is expected to accrete into interest income over the life of the loans of \$13.4 million and \$24.7 million, as of December 31, 2019 and 2018, respectively. The purchased credit impaired loan pools had remaining discounts of \$16.8 million and \$24.9 million, as of December 31, 2019 and 2018, respectively.

Loans acquired with deteriorating credit quality are accounted for as purchased credit impaired pools. Typically, this would include loans that were considered non-performing or restructured as of acquisition date. Accordingly, subsequent to acquisition, loans included in the purchased credit impaired pools are not reported as non-performing loans based upon their individual performance status, so the categories of nonaccrual, impaired and 90 days past due and accruing do not include any purchased credit impaired loans.

A further decline in the economic conditions in our general market areas or other factors could adversely impact individual borrowers or the loan portfolio in general. Accordingly, there can be no assurance that loans will not become 90 days or more past due, become impaired or placed on non-accrual status, restructured or transferred to other real estate owned in the future.

Restructured Loans

At December 31, 2019 and 2018, impaired loans of \$18.6 million and \$13.9 million were classified as performing restructured loans, respectively. The restructurings were granted in response to borrower financial difficulty, and generally provide for a temporary modification of loan repayment terms. The performing restructured loans on accrual status represent principally the only impaired loans accruing interest at December 31, 2019. In order for a restructured loan to be considered performing and on accrual status, the loan's collateral coverage generally will be greater than or equal to 100% of the loan balance, the loan must be current on payments, and the borrower must either prefund an interest reserve or demonstrate the ability to make payments from a verified source of cash flow.

ALLOWANCE FOR LOAN AND LEASE LOSSES AND RESERVE FOR UNFUNDED COMMITMENTS

The allowance for loan and lease losses totaled \$157.6 million at December 31, 2019, an increase of \$12.8 million from the \$144.9 million at December 31, 2018. The following table provides a summary of activity in the ALLL by major loan type, net of deferred fees for each of the five years ended December 31, 2019, 2018, 2017, 2016, and 2015:

(dollars in thousands)	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Balance, beginning of period	\$ 144,871	\$ 140,608	\$ 133,984	\$ 130,322	\$ 116,167
Loans charged-off:					
Commercial real estate, net	(5,849)	(2,950)	(2,407)	(3,137)	(6,797)
Commercial, net	(62,098)	(55,902)	(44,511)	(35,545)	(20,247)
Residential, net	(862)	(877)	(985)	(1,885)	(970)
Consumer & other, net	(6,896)	(6,321)	(8,016)	(9,356)	(7,557)
Total loans charged-off	<u>(75,705)</u>	<u>(66,050)</u>	<u>(55,919)</u>	<u>(49,923)</u>	<u>(35,571)</u>
Recoveries:					
Commercial real estate, net	885	1,184	3,068	1,958	2,682
Commercial, net	12,310	10,421	8,163	4,995	5,001
Residential, net	476	570	764	1,028	641
Consumer & other, net	2,277	2,233	3,294	3,930	4,813
Total recoveries	<u>15,948</u>	<u>14,408</u>	<u>15,289</u>	<u>11,911</u>	<u>13,137</u>
Net charge-offs	(59,757)	(51,642)	(40,630)	(38,012)	(22,434)
Provision for loan and lease losses	72,515	55,905	47,254	41,674	36,589
Balance, end of period	<u>\$ 157,629</u>	<u>\$ 144,871</u>	<u>\$ 140,608</u>	<u>\$ 133,984</u>	<u>\$ 130,322</u>
As a percentage of average loans and leases:					
Net charge-offs	0.29 %	0.26 %	0.22 %	0.22 %	0.14 %
Provision for loan and lease losses	0.35 %	0.29 %	0.26 %	0.24 %	0.23 %
Recoveries as a percentage of charge-offs	21.07 %	21.81 %	27.34 %	23.86 %	36.93 %

The increase in allowance for loan and lease losses as of December 31, 2019 compared to the same period of the prior year was primarily attributable to strong growth in the loan and lease portfolio and an increase in net charge-offs during the period. Additional discussion on the change in provision for loan and lease losses is provided under the heading *Provision for Loan and Lease Losses* above.

The unallocated portion of ALLL provides for coverage of credit losses inherent in the loan portfolio but not captured in the credit loss factors that are utilized in the risk rating-based component, or in the specific impairment reserve component of the allowance for loan and lease losses, and acknowledges the inherent imprecision of all loss prediction models. At both December 31, 2019 and 2018, there was no unallocated allowance for loan and lease losses.

The following table sets forth the allocation of the allowance for loan and lease losses and percent of loans and leases in each category to total loans and leases, net of deferred fees, as of December 31 for each of the last five years:

	December 31, 2019		December 31, 2018		December 31, 2017		December 31, 2016		December 31, 2015	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
(dollars in thousands)										
Commercial real estate, net	\$ 50,847	49.2 %	\$ 47,904	50.4 %	\$ 45,765	51.1 %	\$ 47,795	53.5 %	\$ 54,293	55.3 %
Commercial, net	73,820	23.2 %	63,957	23.1 %	63,305	22.4 %	58,840	20.5 %	47,487	18.9 %
Residential, net	24,714	25.7 %	22,034	23.6 %	19,360	22.5 %	17,946	22.3 %	22,017	22.7 %
Consumer & other, net	8,248	1.9 %	10,976	2.9 %	12,178	4.0 %	9,403	3.7 %	6,525	3.1 %
Allowance for loan and lease losses	<u>\$157,629</u>		<u>\$144,871</u>		<u>\$140,608</u>		<u>\$133,984</u>		<u>\$130,322</u>	

At December 31, 2019, the recorded investment in loans classified as impaired totaled \$16.4 million, with a corresponding valuation allowance (included in the ALLL) of \$155,000. At December 31, 2018, the total recorded investment in impaired loans was \$42.3 million, with a corresponding valuation allowance (included in the ALLL) of \$180,000. The valuation allowance on impaired loans represents the impairment reserves on performing current and former restructured loans and nonaccrual loans at December 31, 2019 and 2018.

The following table presents a summary of activity in the reserve for unfunded commitments for the years ended December 31, 2019, 2018, and 2017:

(in thousands)	2019	2018	2017
Balance, beginning of period	\$ 4,523	\$ 3,963	\$ 3,611
Net charge to other expense	583	560	352
Balance, end of period	<u>\$ 5,106</u>	<u>\$ 4,523</u>	<u>\$ 3,963</u>

The RUC has increased due to the increase in unfunded commitments outstanding as of December 31, 2019. We believe that the ALLL and RUC at December 31, 2019 are sufficient to absorb probable losses inherent in the loan and lease portfolio and credit commitments outstanding as of that date based on the best information available. This assessment, based in part on historical levels of net charge-offs, loan and lease growth, and a detailed review of the quality of the loan and lease portfolio, involves uncertainty and judgment. Therefore, the adequacy of the ALLL and RUC cannot be determined with precision and may be subject to change in future periods. In addition, as of January 1, 2020, the Company has adopted Accounting Standards Update No. 2016-13, *Financial Instruments — Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* ("CECL"). This accounting change will have a significant impact on how our allowance for credit losses is calculated, as well as the related disclosures. Refer to Note 1 of the *Notes to Consolidated Financial Statements* included in Part 8 for additional discussion of the expected impact of adoption of CECL.

RESIDENTIAL MORTGAGE SERVICING RIGHTS

The following table presents the key elements of our residential mortgage servicing rights asset as of December 31, 2019, 2018, and 2017:

(in thousands)	2019	2018	2017
Balance, beginning of period	\$ 169,025	\$ 153,151	\$ 142,973
Additions for new MSR capitalized	25,169	29,069	33,445
Sale of MSR assets	(34,401)	—	—
Changes in fair value:			
Changes due to collection/realization of expected cash flows over time	(25,408)	(24,533)	(23,059)
Changes due to valuation inputs or assumptions ⁽¹⁾	(19,375)	11,338	(208)
Balance, end of period	<u>\$ 115,010</u>	<u>\$ 169,025</u>	<u>\$ 153,151</u>

⁽¹⁾ The changes in valuation inputs and assumptions principally reflect changes in discount rates and prepayment speeds, which are primarily affected by changes in interest rates.

Information related to our serviced loan portfolio as of December 31, 2019, 2018, and 2017 was as follows:

(dollars in thousands)	December 31, 2019	December 31, 2018	December 31, 2017
Balance of loans serviced for others	\$ 12,276,943	\$ 15,978,885	\$ 15,336,597
MSR as a percentage of serviced loans	0.94 %	1.06 %	1.00 %

Residential mortgage servicing rights are adjusted to fair value with the change recorded in residential mortgage banking revenue. The value of servicing rights can fluctuate based on changes in interest rates and other factors. Generally, as interest rates decline and loans are prepaid to take advantage of a refinance incentive, the total value of existing servicing rights declines as no further servicing fees are collected. Historically, the fair value of our residential mortgage servicing rights will increase as market rates for mortgage loans rise and decrease if market rates fall. Mortgage rates decreased during the year ended December 31, 2019, which caused prepayment speed assumptions to rise.

The fair value of the MSR asset decreased \$25.4 million due to the passage of time, including the impact of regularly scheduled repayments, paydowns and payoffs, which is comparable to the decrease of \$24.5 million in 2018. The fair value of the MSR asset decreased \$19.4 million due to changes to the inputs to the valuation model including changes in discount rates and an increase in estimated prepayment speeds during the year ended December 31, 2019. For the year ended December 31, 2018, the valuation inputs, such as discount rates and estimated prepayment speeds, increased the MSR fair value by \$11.3 million.

In October 2019, Umpqua closed on the sale of \$34.4 million in residential mortgage servicing rights for \$3.4 billion of residential mortgage loans serviced for others. The Company continues to analyze the portfolio and anticipates another sale in 2020 in an effort to improve the overall profitability of the business and reduce potential future earnings volatility associated with the MSR asset due to future interest rate changes.

GOODWILL AND OTHER INTANGIBLE ASSETS

At December 31, 2019 and 2018, we had goodwill of \$1.8 billion. Goodwill is recorded in connection with business combinations and represents the excess of the purchase price over the estimated fair value of the net assets acquired. For the years ended December 31, 2019 and 2018, there were no goodwill impairment losses recognized.

At December 31, 2019, we had other intangible assets of \$18.3 million, compared to \$24.0 million at December 31, 2018. As part of a business acquisition, the fair value of identifiable intangible assets such as core deposits, which includes all deposits except certificates of deposit, are recognized at the acquisition date. Intangible assets with definite useful lives are amortized to their estimated residual values over their respective estimated useful lives, and are also reviewed for impairment. We amortize other intangible assets on an accelerated or straight-line basis over an estimated ten year life. Other intangible assets decreased in 2019 from 2018 as a result of amortization of the other intangible assets of \$5.6 million during the year. No impairment losses have been recognized in the periods presented.

DEPOSITS

Total deposits were \$22.5 billion at December 31, 2019, an increase of \$1.3 billion, or 6%, compared to year-end 2018 attributable to growth in time deposits, money market and demand accounts.

The following table presents the deposit balances by major category as of December 31, 2019 and 2018:

(dollars in thousands)	December 31, 2019		December 31, 2018	
	Amount	Percentage	Amount	Percentage
Non-interest bearing	\$ 6,913,375	31 %	\$ 6,667,467	32 %
Interest bearing demand	2,524,534	11 %	2,340,471	11 %
Money market	6,930,815	31 %	6,645,390	31 %
Savings	1,471,475	7 %	1,492,685	7 %
Time, \$100,000 or greater	3,420,446	15 %	2,947,084	14 %
Time, less than \$100,000	1,220,859	5 %	1,044,389	5 %
Total deposits	<u>\$ 22,481,504</u>	<u>100 %</u>	<u>\$ 21,137,486</u>	<u>100 %</u>

The following table presents the scheduled maturities of time deposits of \$100,000 and greater as of December 31, 2019:

(in thousands)	Amount
Three months or less	\$ 857,766
Over three months through six months	814,803
Over six months through twelve months	740,025
Over twelve months	1,007,852
Time, \$100,000 and over	<u>\$ 3,420,446</u>

The Company's brokered deposits totaled \$1.2 billion or 5%, at December 31, 2019, compared to \$1.4 billion or 7%, at December 31, 2018.

BORROWINGS

At December 31, 2019, the Bank had outstanding \$311.3 million of securities sold under agreements to repurchase and no outstanding federal funds purchased balances. The Bank had outstanding borrowings of \$906.6 million at December 31, 2019, consisting of advances from the FHLB. Borrowings outstanding as of December 31, 2019 increased \$154.8 million since December 31, 2018 as a result of new advances, offset by maturity payoffs. Advances from the FHLB are secured by investment securities and loans secured by real estate. The FHLB advances have coupon interest rates ranging from 1.40% to 7.10% and mature in 2020 through 2030.

JUNIOR SUBORDINATED DEBENTURES

We had junior subordinated debentures with carrying values of \$363.3 million and \$389.6 million at December 31, 2019 and 2018, respectively. The decrease is due to the change in fair value for the junior subordinated debentures elected to be carried at fair value. As of December 31, 2019, substantially all of the junior subordinated debentures had interest rates that are adjustable on a quarterly basis based on a spread over three month LIBOR.

LIQUIDITY AND CASH FLOW

The principal objective of our liquidity management program is to maintain the Bank's ability to meet the day-to-day cash flow requirements of our customers who either wish to withdraw funds or to draw upon credit facilities to meet their cash needs.

We monitor the sources and uses of funds on a daily basis to maintain an acceptable liquidity position. One source of funds includes public deposits. Individual state laws require banks to collateralize public deposits, typically as a percentage of their public deposit balance in excess of FDIC insurance. Public deposits represent 9% of total deposits at December 31, 2019 and 2018. The amount of collateral, or letters of credit issued by the FHLB on the Bank's behalf in favor of the public units, required varies by state and may also vary by institution within each state, depending on the individual state's risk assessment of depository institutions. Changes in the pledging requirements for uninsured public deposits may require pledging additional collateral to secure these deposits, drawing on other sources of funds to finance the purchase of assets that would be available to be pledged to satisfy a pledging requirement, or could lead to the withdrawal of certain public deposits from the Bank. In addition to liquidity from core deposits and the repayments and maturities of loans and investment securities, the Bank can utilize established uncommitted federal funds lines of credit, sell securities under agreements to repurchase, borrow on a secured basis from the FHLB or issue brokered certificates of deposit.

The Bank had available lines of credit with the FHLB totaling \$7.0 billion at December 31, 2019 subject to certain collateral requirements, namely the amount of pledged loans and investment securities. The Bank had available lines of credit with the Federal Reserve totaling \$652.1 million subject to certain collateral requirements, namely the amount of certain pledged loans. The Bank had uncommitted federal funds line of credit agreements with additional financial institutions totaling \$460.0 million at December 31, 2019. Availability of these lines is subject to federal funds balances available for loan and continued borrower eligibility. These lines are intended to support short-term liquidity needs, and the agreements may restrict consecutive day usage.

The Company is a separate entity from the Bank and must provide for its own liquidity. Substantially all of the Company's revenues are obtained from dividends declared and paid by the Bank. There were \$216.0 million of dividends paid by the Bank to the Company in 2019. There are statutory and regulatory provisions that could limit the ability of the Bank to pay dividends to the Company. We believe that such restrictions will not have an adverse impact on the ability of the Company to fund its quarterly cash dividend distributions to common shareholders and meet its ongoing cash obligations, which consist principally of debt service on the outstanding junior subordinated debentures.

As disclosed in the *Consolidated Statements of Cash Flows*, net cash used in operating activities was \$80.5 million during 2019, with the difference between cash provided by operating activities and net income largely consisting of originations of loans held for sale of \$3.1 billion, the increase in other assets of \$141.8 million, the gain on sale of loans of \$95.4 million, and the gain on equity securities of \$83.5 million, offset by proceeds from the sale of loans held for sale of \$2.8 billion, as well as a provision for loan and lease losses of \$72.5 million. This compares to net cash provided by operating activities of \$505.2 million during 2018, with the difference between cash provided by operating activities and net income largely consisting of proceeds from the sale of loans held for sale of \$3.0 billion, offset by originations of loans held for sale of \$2.9 billion, the gain on sale of loans of \$77.8 million, as well as the provision for loan and lease loss of \$55.9 million.

Net cash of \$550.2 million used in investing activities during 2019 consisted principally of \$1.1 billion of net change in loans and leases, \$698.0 million in purchases of investment securities available for sale, and purchases of restricted equity securities of \$220.2 million, partially offset by proceeds from investment securities available for sale of \$918.7 million, proceeds from sale of loans and leases of \$251.8 million and the redemption of restricted equity securities of \$214.0 million. This compares to net cash of \$1.5 billion used in investing activities during 2018, which consisted principally of net changes in loans and leases of \$1.6 billion and purchases of investment securities available for sale of \$449.4 million, partially offset by proceeds from investment securities available for sale of \$440.2 million and proceeds from sale of loans and leases of \$164.0 million.

Net cash of \$1.4 billion provided by financing activities during 2019 primarily consisted of \$1.4 billion increase in net deposits and proceeds from borrowings of \$940.7 million, partially offset by repayment of debt of \$785.7 million and dividends paid on common stock of \$185.1 million. This compares to net cash of \$982.3 million provided by financing activities during 2018, which consisted primarily of \$1.2 billion increase in net deposits and \$100.0 million proceeds from borrowings, partially offset by dividends paid on common stock of \$173.9 million and repayment of borrowings of \$150.7 million.

Although we expect the Bank's and the Company's liquidity positions to remain satisfactory during 2020, it is possible that our deposit balances may not be maintained at previous levels due to store consolidations or pricing pressure. In addition, in order to generate deposit growth, our pricing may need to be adjusted in a manner that results in increased interest expense on deposits.

OFF-BALANCE-SHEET-ARRANGEMENTS

Information regarding Off-Balance-Sheet Arrangements is included in Note 18 and 19 of the *Notes to Consolidated Financial Statements* in Item 8 below.

The following table presents a summary of significant contractual obligations extending beyond one year as of December 31, 2019 and maturing as indicated:

(in thousands)	Less than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 Years	Total
Deposits ⁽¹⁾	\$ 21,046,578	\$ 1,329,095	\$ 92,245	\$ 13,586	\$ 22,481,504
Borrowings	510,000	390,000	—	5,000	905,000
Junior subordinated debentures ⁽²⁾	—	—	—	464,962	464,962
Operating leases	31,029	47,109	28,148	27,186	133,472
Other long-term liabilities ⁽³⁾	3,754	6,996	6,566	46,778	64,094
Total contractual obligations	<u>\$ 21,591,361</u>	<u>\$ 1,773,200</u>	<u>\$ 126,959</u>	<u>\$ 557,512</u>	<u>\$ 24,049,032</u>

⁽¹⁾ Deposits with indeterminate maturities, such as demand, savings and money market accounts, are reflected as obligations due in less than one year.

⁽²⁾ Represents the issued amount of all junior subordinated debentures.

⁽³⁾ Includes maximum payments related to employee benefit plans, assuming all future vesting conditions are met. Additional information about employee benefit plans is provided in Note 17 of the *Notes to Consolidated Financial Statements* in Item 8 below.

The table above does not include interest payments or purchase accounting adjustments related to deposits, borrowings or junior subordinated debentures or imputed interest on operating leases.

As of December 31, 2019, the Company has a liability for unrecognized tax benefits, including accrued interest, in the amount of \$4.4 million. As the Company is not able to estimate the period in which this liability will be paid in the future, this amount is not included in the future contractual obligations table above.

CONCENTRATIONS OF CREDIT RISK

Information regarding Concentrations of Credit Risk is included in Note 2, 4, and 18 of the *Notes to Consolidated Financial Statements* in Item 8 below.

CAPITAL RESOURCES

Shareholders' equity at December 31, 2019 was \$4.3 billion, an increase of \$257.5 million from December 31, 2018. The increase in shareholders' equity during the year ended was principally due to net income of \$354.1 million and other comprehensive income, net of tax of \$88.5 million, offset by common stock dividends declared of \$186.0 million.

The Federal Reserve Board has in place guidelines for risk-based capital requirements applicable to U.S. banks and bank/financial holding companies. These risk-based capital guidelines take into consideration risk factors, as defined by regulation, associated with various categories of assets, both on and off-balance sheet. Refer to the discussion of the capital adequacy requirements in *Supervision and Regulation* in *Item 1* of this 10-K.

Under the Basel III guidelines, capital strength is measured in three tiers, which are used in conjunction with risk-adjusted assets to determine the risk-based capital ratios. The guidelines require an 8% total risk-based capital ratio, of which 6% must be Tier 1 capital and 4.5% must be CET1. Our CET1 capital primarily includes shareholders' equity less certain deductions for goodwill and other intangibles, net of taxes, net unrealized gains (losses) on AFS securities, net of tax, net unrealized gains (losses) related to fair value of liabilities, net of tax, and certain deferred tax assets that arise from tax loss and credit carry-forwards, and totaled \$2.5 billion at December 31, 2019. Tier 1 capital is primarily comprised of common equity Tier 1 capital, less certain additional deductions applied during the phase-in period, totaled \$2.5 billion at December 31, 2019. Tier 2 capital components include all, or a portion of, the allowance for loan and lease losses in excess of Tier 1 statutory limits and combined trust preferred security debt issuances. The total of Tier 1 capital plus Tier 2 capital components is referred to as Total Risk-Based Capital, and was \$3.1 billion at December 31, 2019. The percentage ratios, as calculated under the guidelines, were 11.20%, 11.20% and 13.96% for CET1, Tier 1 and Total Risk-Based Capital, respectively, at December 31, 2019. The CET1, Tier 1 and Total Risk-Based Capital ratios at December 31, 2018 were 10.73%, 10.73% and 13.51%, respectively.

A minimum leverage ratio is required in addition to the risk-based capital standards and is defined as period-end shareholders' equity, less accumulated other comprehensive income, goodwill and deposit-based intangibles, divided by average assets as adjusted for goodwill and other intangible assets. Although a minimum leverage ratio of 4% is required for the highest-rated financial holding companies that are not undertaking significant expansion programs, the Federal Reserve Board may require a financial holding company to maintain a leverage ratio greater than 4% if it is experiencing or anticipating significant growth or is operating with less than well-diversified risks in the opinion of the Federal Reserve Board. The Federal Reserve Board uses the leverage and risk-based capital ratios to assess capital adequacy of banks and financial holding companies. Our consolidated leverage ratios at December 31, 2019 and 2018 were 9.16% and 9.31%, respectively. As of December 31, 2019, the most recent notification from the FDIC categorized the Bank as "well-capitalized" under the regulatory framework for prompt corrective action. There are no conditions or events since that notification that management believes have changed the Bank's regulatory capital category.

During the year ended December 31, 2019, the Company made no capital contributions to the Bank. At December 31, 2019, all four of the capital ratios of the Bank exceeded the minimum ratios required by federal regulation. Management monitors these ratios on a regular basis to ensure that the Bank remains within regulatory guidelines.

During 2019, Umpqua's Board of Directors approved cash dividends of \$0.21 per common share in all four quarters. These dividends were made pursuant to our existing dividend policy and in consideration of, among other things, earnings, regulatory capital levels, the overall payout ratio and expected asset growth. We expect that the dividend rate will be reassessed on a quarterly basis by the Board of Directors in accordance with the dividend policy.

There is no assurance that future cash dividends on common shares will be declared or increased. The following table presents cash dividends declared and dividend payout ratios (dividends declared per common share divided by basic earnings per common share) for the years ended December 31, 2019, 2018 and 2017:

	2019	2018	2017
Dividend declared per common share	\$ 0.84	\$ 0.82	\$ 0.68
Dividend payout ratio	52%	57%	62%

The Company's share repurchase plan, which was first approved by the Board and announced in August 2003, provided authority to repurchase up to 15 million shares of our common stock. The Board of Directors has approved extensions of the repurchase plan to July 31, 2021. As of December 31, 2019, a total of 9.9 million shares remained available for repurchase. The Company repurchased 300,000 shares under the repurchase plan in 2019. The timing and amount of future repurchases will depend upon the market price for our common stock, securities laws restricting repurchases, asset growth, earnings, and our capital plan. In addition, our stock plans provide that option and award holders may pay for the exercise price and tax withholdings in part or whole by tendering previously held shares.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our market risk arises primarily from credit risk and interest rate risk inherent in our investment, lending and financing activities. To manage our credit risk, we rely on various controls, including our underwriting standards and loan policies, internal loan monitoring and periodic credit reviews as well as our allowance of loan and lease losses ("ALLL") methodology. Additionally, the Company's Enterprise Risk and Credit, and Audit and Compliance Committees provide board oversight over the Company's loan portfolio risk management functions, the Company's Finance and Capital Committee provides board oversight over the Company's investment portfolio and hedging risk management functions, and the Bank's Audit and Compliance Committee provides board oversight of the ALLL process and reviews and approves the ALLL methodology.

Interest rate risk is the potential for loss resulting from adverse changes in the level of interest rates on the Company's net interest income. The absolute level and volatility of interest rates can have a significant impact on our profitability. The objective of interest rate risk management is to identify and manage the sensitivity of net interest income to changing interest rates to achieve our overall financial objectives. Based on economic conditions, asset quality and various other considerations, management establishes tolerance ranges for interest rate sensitivity and manages within these ranges. Net interest income and the fair value of financial instruments are greatly influenced by changes in the level of interest rates. We manage exposure to fluctuations in interest rates through policies that are established by the Asset/Liability Management Committee ("ALCO"). The ALCO meets monthly and has responsibility for developing asset/liability management policy, formulating and implementing strategies to improve balance sheet positioning and earnings and reviewing interest rate sensitivity. The Board of Directors' Finance and Capital Committee provides oversight of the asset/liability management process, reviews the results of the interest rate risk analyses prepared for the ALCO and approves the asset/liability policy on an annual basis.

We measure our interest rate risk position on at least a quarterly basis using three methods: (i) gap analysis, (ii) net interest income simulation; and (iii) economic value of equity (fair value of financial instruments) modeling. The results of these analyses are reviewed by ALCO monthly and the Finance and Capital Committee quarterly. If hypothetical changes to interest rates cause changes to our simulated net interest income simulation or economic value of equity modeling outside of our pre-established internal limits, we may adjust the asset and liability size or mix in an effort to bring our interest rate risk exposure within our established limits.

LIBOR Transition

In 2017, the United Kingdom's Financial Conduct Authority announced that it would no longer require banks to submit rates for the London InterBank Offered Rate ("LIBOR") after 2021. The Company holds financial instruments that will be impacted by the discontinuance of LIBOR, including certain loans, investment securities, derivatives, junior subordinated debentures and other financial instruments that use LIBOR as the benchmark rate. The Company anticipates these financial instruments will require transition to new reference rates. This transition will occur over time as many of these arrangements do not have an alternative rate referenced in their contracts. The Company has commenced an enterprise-wide transition project to address the needed operational changes, and identify, assess and monitor risks associated with the transition. Refer to the risk factors in Part I Item 1 and Item 1A of this report, for further discussion on potential risks that could adversely affect the Company's financial results as a result of the LIBOR transition.

Gap Analysis

A gap analysis provides information about the volume and repricing characteristics and relationship between the amounts of interest-sensitive assets and interest-bearing liabilities at a point in time. An effective interest rate strategy attempts to match how the volume of interest sensitive assets and interest-bearing liabilities respond to changes in interest rates within an acceptable time frame, thereby minimizing the impact of interest rate changes on net interest income. Gap analysis measures interest rate sensitivity at a point in time as the difference between the estimated volumes of asset and liability cash flows or repricing characteristics across various time horizons: immediate to three months, four to twelve months, one to five years, over five years, and on a cumulative basis. The differences are known as interest sensitivity gaps. The main focus of this interest rate management tool is the gap sensitivity identified as the cumulative one year gap. As of December 31, 2019, the cumulative one-year gap has decreased from a negative 9% in 2018 to a negative 6% in 2019. The decrease from the prior year is primarily a result of higher on-balance sheet interest-bearing cash levels, higher loans held for sale balances, and shorter duration loan funding partially offset by an increase in shorter duration time deposits and borrowings to mitigate net interest income exposure to a lower rates scenario.

The table below sets forth interest sensitivity gaps for these different intervals as of December 31, 2019.

Interest Sensitivity Gap

(in thousands)	By Estimated Cash Flow or Repricing Interval					Total
	0-3 Months	4-12 Months	1-5 Years	Over 5 Years	Non-Rate Sensitive	
ASSETS						
Interest bearing cash and temporary investments	\$ 980,158	\$ —	\$ —	\$ —	\$ —	\$ 980,158
Equity and other securities	—	—	65,000	1,982	13,183	\$ 80,165
Securities held to maturity	88	240	912	2,201	(181)	\$ 3,260
Securities available for sale	139,057	390,929	1,034,727	1,225,535	24,434	\$ 2,814,682
Loans held for sale	507,974	—	—	—	5,457	\$ 513,431
Loans and leases	8,449,338	3,339,349	7,956,277	1,583,457	(132,737)	\$ 21,195,684
Restricted equity securities	—	—	—	—	46,463	\$ 46,463
Non-interest earning assets	—	—	—	—	3,212,966	\$ 3,212,966
Total assets	10,076,615	3,730,518	9,056,916	2,813,175	3,169,585	\$ 28,846,809
LIABILITIES AND SHAREHOLDERS' EQUITY						
Interest bearing demand deposits	\$ 2,524,534	\$ —	\$ —	\$ —	\$ —	\$ 2,524,534
Money market deposits	6,930,815	—	—	—	—	\$ 6,930,815
Savings deposits	1,471,475	—	—	—	—	\$ 1,471,475
Time deposits	1,030,428	2,188,522	1,409,113	13,242	—	\$ 4,641,305
Securities sold under agreements to repurchase	311,308	—	—	—	—	\$ 311,308
Borrowings	250,000	260,000	390,000	5,000	1,635	\$ 906,635
Junior subordinated debentures, at fair value	379,390	—	—	—	(104,578)	\$ 274,812
Junior subordinated debentures, at amortized cost	85,572	—	—	—	2,924	\$ 88,496
Non-interest bearing liabilities and shareholders' equity	—	—	—	—	11,697,429	\$ 11,697,429
Total liabilities and shareholders' equity	12,983,522	2,448,522	1,799,113	18,242	11,597,410	\$ 28,846,809
Interest rate sensitivity gap	(2,906,907)	1,281,996	7,257,803	2,794,933	(8,427,825)	
Cumulative interest rate sensitivity gap	\$ (2,906,907)	\$ (1,624,911)	\$ 5,632,892	\$ 8,427,825	\$ —	
Cumulative gap as a % of earning assets	(11)%	(6)%	22 %	33 %		

The gap table has inherent limitations and actual results may vary significantly from the results suggested by the gap table. The gap table is unable to incorporate certain balance sheet characteristics or factors. The gap table assumes a static balance sheet and looks at the repricing of existing assets and liabilities without consideration for new loans and deposits that reflect a more current interest rate environment. Changes in the mix of earning assets or supporting liabilities can either increase or decrease the net interest margin without affecting interest rate sensitivity. In addition, the interest rate spread between an asset and its supporting liability can vary significantly, while the timing of repricing for both the asset and the liability remains the same, thus impacting net interest income. This characteristic is referred to as basis risk and generally relates to the possibility that the repricing index of short-term assets is different from those of short-term liabilities. Varying interest rate environments can create unexpected changes in prepayment levels of assets and liabilities that are not reflected in the interest rate sensitivity analysis. These prepayments may have a significant impact on our net interest margin.

For example, unlike the net interest income simulation, the interest rate risk profile of certain deposit products and floating rate loans that have reached their floors cannot be captured effectively in a gap table. Although the table shows the amount of certain assets and liabilities scheduled to reprice in a given time frame, it does not reflect when or to what extent such repricing may actually occur. For example, interest-bearing checking, money market and savings deposits are shown to reprice in the first three months, but we may choose to reprice these deposits more slowly and incorporate only a portion of the movement in market rates based on market conditions at that time. Alternatively, a loan which has reached its ceiling may not reprice upwards even though market interest rates increase causing such loan to act like a fixed rate loan regardless of its scheduled repricing date. The gap table as presented cannot factor in the flexibility we believe we have in repricing deposits or the floors on our loans.

Because of these factors, an interest sensitivity gap analysis may not provide an accurate or complete assessment of our exposure to changes in interest rates. We believe the estimated effect of a change in interest rates is better reflected in our net interest income and economic value of equity simulations.

Net Interest Income Simulation

Interest rate sensitivity is a function of the repricing characteristics of our interest earning assets and interest bearing liabilities. These repricing characteristics are the time frames within which the interest bearing assets and liabilities are subject to change in interest rates either at replacement, repricing or maturity during the life of the instruments. Interest rate sensitivity management focuses on the maturity structure of assets and liabilities and their repricing characteristics during periods of changes in market interest rates.

Management utilizes an interest rate simulation model to estimate the sensitivity of net interest income to changes in market interest rates. This model is an interest rate risk management tool and the results are not necessarily an indication of our future net interest income. This model has inherent limitations and these results are based on a given set of rate changes and assumptions at one point in time. These estimates are based upon a number of assumptions for each scenario, including changes in the size or mix of the balance sheet, new volume rates for new balances, the rate of prepayments, and the correlation of pricing to changes in the interest rate environment. For example, for interest bearing deposit balances we may choose to reprice these balances more slowly and incorporate only a portion of the movement in market rates based on market conditions at that time. Our primary analysis assumes a static balance sheet, both in terms of the total size and mix of our balance sheet, meaning cash flows from the maturity or repricing of assets and liabilities are redeployed in the same instrument at modeled rates.

Changes that could vary significantly from our assumptions include loan and deposit growth or contraction, changes in the mix of our earning assets or funding sources, the performance of loans accounted for under the expected cash flow method, and future asset/liability management decisions, all of which may have significant effects on our net interest income. Also, some of the assumptions made in the simulation model may not materialize and unanticipated events and circumstances may occur. In addition, the simulation model does not take into account any future actions management could undertake to mitigate the impact of interest rate changes or the impact a change in interest rates may have on our credit risk profile, loan prepayment estimates and spread relationships, which can change regularly. Actions we could undertake include, but are not limited to, growing or contracting the balance sheet, changing the composition of the balance sheet, or changing our pricing strategies for loans or deposits.

The estimated impact on our net interest income over a time horizon of one year as of December 31, 2019, 2018, and 2017 are indicated in the table below. For the scenarios shown, the interest rate simulation assumes a parallel and sustained shift in market interest rates ratably over a twelve-month period and no change in the composition or size of the balance sheet. For example, the "up 200 basis points" scenario is based on a theoretical increase in market rates of 16.7 basis points per month for twelve months applied to the balance sheet of December 31 for each respective year.

Interest Rate Simulation Impact on Net Interest Income

As of December 31,

	2019	2018	2017
Up 300 basis points	5.9 %	4.9 %	5.5 %
Up 200 basis points	4.1 %	3.3 %	3.9 %
Up 100 basis points	2.2 %	1.7 %	2.1 %
Down 100 basis points	(3.8)%	(2.8)%	(3.9)%
Down 200 basis points	(7.4)%	(6.3)%	(8.1)%
Down 300 basis points	(9.4)%	(9.5)%	(11.3)%

Asset sensitivity indicates that in a rising interest rate environment the Company's net interest margin would increase and in a decreasing interest rate environment the Company's net interest margin would decrease. Liability sensitivity indicates that in a rising interest rate environment a Company's net interest margin would decrease and in a decreasing interest rate environment the Company's net interest margin would increase. For all years presented, we were "asset-sensitive" meaning we expect our net interest income to increase as market rates increase and to decrease as market rates decrease. The relative level of asset sensitivity as of December 31, 2019 has increased from the prior periods presented primarily due to an increase in sensitivity from higher interest-bearing cash balances, an increase in sensitivity from higher loans held for sale balances, and an increase in sensitivity from loans and leases due to an increase in variable rate loan fundings, partially offset by an increase in sensitivity from non-maturity deposits due to higher balances, and an increase in sensitivity from time deposits and borrowings due to a decrease in the duration. In the decreasing interest rate environments, we show a decline in net interest income as interest-bearing assets re-price lower while deposits remain at or near their floors. It should be noted that although net interest income simulation results are presented through the down 300 basis points interest rate environments, we do not believe the down 200 and 300 basis point scenarios are plausible in the near term given the current level of interest rates.

Interest rate sensitivity in the first year of the net interest income simulation for increasing interest rate scenarios is negatively impacted by the cost of non-maturity deposits repricing immediately while interest earnings assets (primarily the loan and leases held for investment portfolio) reprice at a slower rate based upon the instrument repricing characteristics (refer to the Interest Sensitivity Gap table above). As a result, interest sensitivity in increasing interest rates scenarios improves in subsequent years as these assets reprice. Conversely, in a declining interest scenario, net interest income is negatively impacted by assets re-pricing lower while deposits remain at or near their floors. Management also prepares and reviews the long-term trends of the net interest income simulation to measure and monitor risk. This analysis assumes the same rate shift over the first year of the scenario as described above, and holding steady thereafter. The estimated impact on our net interest income over the first and second-year time horizons as it relates to our balance sheet as of December 31, 2019 is indicated in the table below.

Interest Rate Simulation Impact on Net Interest Income

As of December 31, 2019

	Year 1	Year 2
Up 300 basis points	5.9 %	10.1 %
Up 200 basis points	4.1 %	7.1 %
Up 100 basis points	2.2 %	3.9 %
Down 100 basis points	(3.8)%	(8.9)%
Down 200 basis points	(7.4)%	(16.4)%
Down 300 basis points	(9.4)%	(17.5)%

In general, we view the net interest income model results as more relevant to the Company's current operating profile (a going concern), and we primarily manage our balance sheet based on this information.

Economic Value of Equity

Another interest rate sensitivity measure we utilize is the quantification of economic value changes for all financial assets and liabilities, given an increase or decrease in market interest rates. This approach provides a longer-term view of interest rate risk, capturing all future expected cash flows. Assets and liabilities with option characteristics are measured based on different interest rate path valuations using statistical rate simulation techniques. The projections are by their nature forward-looking and therefore inherently uncertain and include various assumptions regarding cash flows and discount rates.

The table below illustrates the effects of various instantaneous market interest rate changes on the fair values of financial assets and liabilities compared to the corresponding carrying values and fair values:

Interest Rate Simulation Impact on Fair Value of Financial Assets and Liabilities

As of December 31,

	2019	2018
Up 300 basis points	(1.0)%	(5.6)%
Up 200 basis points	0.4 %	(3.2)%
Up 100 basis points	1.2 %	(1.0)%
Down 100 basis points	(5.2)%	(4.0)%
Down 200 basis points	(12.2)%	(11.1)%
Down 300 basis points	(14.4)%	(18.6)%

As of December 31, 2019, our economic value of equity model indicates an asset sensitive profile through rates higher 200 basis points. This suggests a sudden or sustained increase in market interest rates would result in an increase in our estimated economic value of equity. Conversely, a decrease in market interest rates would result in a decrease in our estimated market value of equity as assets re-price lower while deposits remain at or near their floors. Our overall sensitivity to market interest rate changes as of December 31, 2019 has decreased in the rising rate environment compared to December 31, 2018. As of December 31, 2019, our estimated economic value of equity (fair value of financial assets and liabilities) exceeded our book value of equity. This result is primarily based on the value placed on the Company's significant amount of noninterest bearing and low-cost interest-bearing deposits. While noninterest bearing deposits do not impact the net interest income simulation, the value of these deposits has a significant impact on the economic value of equity model, particularly when market rates are assumed to rise.

IMPACT OF INFLATION AND CHANGING PRICES

A financial institution's asset and liability structure is substantially different from that of an industrial firm in that primarily all assets and liabilities of a bank are monetary in nature, with relatively little investment in fixed assets or inventories. Inflation has an important impact on the growth of total assets and the resulting need to increase equity capital at higher than normal rates in order to maintain appropriate capital ratios. We believe that the impact of inflation on financial results depends on management's ability to react to changes in interest rates and, by such reaction, reduce the inflationary impact on performance. We have an asset/liability management program which attempts to manage interest rate sensitivity. In addition, periodic reviews of banking services and products are conducted to adjust pricing in view of current and expected costs.

Our financial statements included in Item 8 below have been prepared in accordance with accounting principles generally accepted in the United States, which requires us to measure financial position and operating results principally in terms of historic dollars. Changes in the relative value of money due to inflation or recession are generally not considered. The primary effect of inflation on our results of operations is through increased operating costs, such as compensation, occupancy and business development expenses. In management's opinion, changes in interest rates affect the financial condition of a financial institution to a far greater degree than changes in the rate of inflation. Although interest rates are greatly influenced by changes in the inflation rate, they do not necessarily change at the same rate or in the same magnitude as the inflation rate. Interest rates are highly sensitive to many factors that are beyond our control, including U.S. fiscal and monetary policy and general national and global economic conditions.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Umpqua Holdings Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Umpqua Holdings Corporation and subsidiaries (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows, for each of the two years in the period ended December 31, 2019, and the related notes (collectively referred to as the "financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Because management's assessment and our audit were conducted to meet the reporting requirements of Section 112 of the Federal Deposit Insurance Corporation Improvement Act (FDICIA), management's assessment and our audit of the Company's internal control over financial reporting included controls over the preparation of the schedules equivalent to the basic financial statements in accordance with the instructions for the Consolidated Financial Statements for Bank Holding Companies (Form FR Y-9C).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

Basis for Opinions

The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report of Management on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on these financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained, in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Allowance for Loan and Lease Losses — Refer to Notes 1, 4, and 5 to the financial statements

Critical Audit Matter Description

The allowance for loan and lease losses (ALLL) is an estimate of probable incurred credit losses in the Company's loan and lease portfolio at the balance sheet date. As of December 31, 2019, the Company's ALLL was \$157.6 million. The most significant component of the ALLL is the formula allowance. The Company uses two primary models to estimate the formula allowance. For the majority of loans and leases, the Company applies a model that utilizes loss rate assumptions and loan risk ratings to estimate incurred credit losses. For loans and leases originated for the acquisition of equipment at the Company's Financial Pacific Leasing subsidiary (collectively "equipment financing"), the Company applies models that segment the equipment financing portfolio by origination date or proprietary credit scores, and utilizes historic loss rates and assumptions regarding the timing over which incurred losses will be recognized as charge-offs to estimate incurred credit losses.

Commercial real estate and commercial loans and leases, exclusive of equipment financing, (collectively the "commercial portfolio") represented approximately two-thirds of the Company's total loan and lease portfolio as of December 31, 2019. Management determines the risk ratings for a majority of the commercial portfolio based on individual customer and collateral characteristics. The determination of the risk ratings for these loans and leases requires significant management judgment that could impact the magnitude of the ALLL.

The equipment financing portfolio accounts for the majority of the Company's charge-offs and the models used to determine the formula allowance involve greater complexity. Significant management judgment is required to evaluate the appropriateness of the models and the significant assumptions.

Given (1) the significance of the commercial portfolio and the judgment used by management to determine the appropriate risk ratings and (2) the complexity of the models used to estimate incurred losses for the equipment financing portfolio as well as the significance of the assumptions used in those models, performing audit procedures to evaluate the ALLL requires a high degree of auditor judgment and an increased extent of effort, including the need to involve more experienced audit personnel.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the ALLL included the following, among others:

- We tested the effectiveness of controls over the appropriateness and accuracy of the model used to determine the formula allowance for the commercial portfolio and controls over the reasonableness of the loss assumptions utilized in that model.
- We tested the effectiveness of controls over the accuracy of the risk ratings for the commercial portfolio.
- We tested the effectiveness of controls over the appropriateness and accuracy of the formula allowance models for the equipment financing portfolio.
- We tested the effectiveness of controls over the historical loss data and assumptions related to the timing of losses used in the formula allowance models for the equipment financing portfolio.
- We evaluated the accuracy of the risk ratings for a sample of loans in the commercial portfolio.
- We performed analytic procedures to evaluate the reasonableness of the formula allowance for the commercial portfolio using the Company's historic credit loss experience, industry credit loss data, and other inputs.
- We evaluated the appropriateness of the formula allowance models used for the equipment finance portfolio.
- We evaluated whether the assumptions related to the timing of losses used in the equipment finance formula allowance models were reasonable by comparing the timing of losses for pools of recent equipment financing originations to the loss curve assumptions.
- We evaluated the assumption for the average period between a loss event and the confirmation of a loss used in the formula allowance models for equipment financing.
- We tested the mathematical accuracy of the formula allowance models and the completeness and accuracy of the data used in the models by recalculating the models.

Current Expected Credit Losses — Refer to Note 1 to the financial statements

Critical Audit Matter Description

On January 1, 2020, the Company adopted Accounting Standards Update (ASU) No. 2016-13, *Financial Instruments — Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, which required the measurement of the current expected credit losses for financial assets, including the Company's loan and lease portfolio, held at the reporting date. Estimates of expected credit losses for loans and leases are based on historical experience, current conditions and reasonable and supportable forecasts, and the expected life of the loans and leases. In order to estimate the expected credit losses, the Company implemented several new loss estimation models. The Company disclosed that the estimated allowance for loan and lease losses upon adoption on January 1, 2020, will be between \$213 million and \$219 million.

The accounting for credit losses significantly changes under the new standard, including the application of new accounting policies, the use of new subjective judgments, and the use of new loss estimation models. Accordingly, the procedures performed to audit the disclosure of the estimated impact of ASU No. 2016-13 adoption involved a high degree of auditor judgment and required significant effort, including the need to involve our credit specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the disclosure of the estimated impact of ASU No. 2016-13 adoption included the following, among others:

- We tested the effectiveness of management's internal controls over key assumptions and judgments, credit loss estimation models, selection and application of new accounting policies, and disclosure of the impact of adoption discussed in Note 1 to the financial statements.
- We evaluated the completeness of the financial statement disclosure related to the adoption of ASU No. 2016-13.
- We evaluated the appropriateness of the Company's policies, methodologies, and elections involved in the adoption of ASU No. 2016-13.
- We tested the credit loss estimation models, including the inputs to the models.
- We involved credit specialist to assist us in evaluating the reasonableness and conceptual soundness of the methodology as applied in the credit loss estimation models.
- We evaluated the reasonableness of management's key assumptions and judgments in estimating expected credit losses.

Goodwill – Wholesale Bank Reporting Unit — Refer to Notes 1 and 8 to the financial statements

Critical Audit Matter Description

The Company performed a quantitative assessment of goodwill for its Wholesale Bank reporting unit as of October 31, 2019, by comparing the fair value of the reporting unit with its carrying amount. The Company estimated the fair value of its Wholesale Bank reporting unit using an income approach. The income approach estimates the fair value of the reporting unit by discounting management's projections of the reporting unit's cash flows, including a terminal value to estimate the fair value of cash flows beyond the final year of projected results, discounted using an estimated cost of capital discount rate. Changes in the projections of cash flows, terminal value, and discount rate assumptions could have a significant impact on either the fair value of the reporting unit, the amount of any goodwill impairment charge, or both. The goodwill balance for the Wholesale Bank Reporting Unit was \$1.0 billion as of December 31, 2019. The fair value of the Wholesale Bank reporting unit exceeded its carrying value as of the measurement date and, therefore, no impairment was recognized. Given the significant judgments made by management to estimate the fair value of the Wholesale Bank reporting unit, our performance of audit procedures to evaluate the appropriateness of the income approach valuation methodology and the reasonableness of management's estimates and assumptions related to forecasted cash flows, the terminal value, and the discount rate required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the cash flow forecast, terminal value and discount rate assumptions used by management to estimate the fair value of the Wholesale Bank reporting unit included the following, among others:

- We tested the effectiveness of controls over management's goodwill impairment evaluation, including those controls over the determination of the fair value of the Wholesale Bank reporting unit, including the cash flow projection and the terminal value and discount rate assumptions.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the valuation methodology, the terminal value assumption, and the discount rate, which included developing a range of independent estimates for the terminal value and discount rate assumptions and comparing those to the assumptions selected by management.
- We evaluated management's ability to accurately forecast cash flows by comparing actual results to management's historical forecasts.
- We tested the mathematical accuracy of the valuation model.

/s/ Deloitte & Touche LLP

Portland, Oregon
February 27, 2020

We have served as the Company's auditor since 2018.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of
Umpqua Holdings Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flow of Umpqua Holdings Corporation and Subsidiaries (the "Company") for the period ended December 31, 2017, and the related notes, (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated results of the Company's operations and its cash flows for the year ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audit of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ Moss Adams LLP

Portland, Oregon

February 23, 2018, except for the previously disclosed adjustments to 2017, as to which the date is February 21, 2019

We served as the Company's auditors from 2005 to 2018.

UMPQUA HOLDINGS CORPORATION AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
December 31, 2019 and 2018

(in thousands, except shares)	December 31, 2019	December 31, 2018
ASSETS		
Cash and due from banks	\$ 382,598	\$ 335,419
Interest bearing cash and temporary investments	980,158	287,218
Total cash and cash equivalents	1,362,756	622,637
Investment securities		
Equity and other, at fair value	80,165	61,841
Available for sale, at fair value	2,814,682	2,977,108
Held to maturity, at amortized cost	3,260	3,606
Loans held for sale, at fair value	513,431	166,461
Loans and leases	21,195,684	20,422,666
Allowance for loan and lease losses	(157,629)	(144,871)
Net loans and leases	21,038,055	20,277,795
Restricted equity securities	46,463	40,268
Premises and equipment, net	201,460	227,423
Operating lease right-of-use assets	110,718	—
Goodwill	1,787,651	1,787,651
Other intangible assets, net	18,346	23,964
Residential mortgage servicing rights, at fair value	115,010	169,025
Bank owned life insurance	320,611	313,626
Other assets	434,201	268,376
Total assets	<u>\$ 28,846,809</u>	<u>\$ 26,939,781</u>
LIABILITIES AND SHAREHOLDERS' EQUITY		
Deposits		
Noninterest bearing	\$ 6,913,375	\$ 6,667,467
Interest bearing	15,568,129	14,470,019
Total deposits	22,481,504	21,137,486
Securities sold under agreements to repurchase	311,308	297,151
Borrowings	906,635	751,788
Junior subordinated debentures, at fair value	274,812	300,870
Junior subordinated debentures, at amortized cost	88,496	88,724
Operating lease liabilities	119,429	—
Deferred tax liability, net	52,928	25,846
Other liabilities	297,782	281,474
Total liabilities	24,532,894	22,883,339
COMMITMENTS AND CONTINGENCIES (NOTE 18)		
SHAREHOLDERS' EQUITY		
Common stock, no par value, shares authorized: 400,000,000 in 2019 and 2018; issued and outstanding: 220,229,282 in 2019 and 220,255,039 in 2018	3,514,000	3,512,874
Retained earnings	770,366	602,482
Accumulated other comprehensive income (loss)	29,549	(58,914)
Total shareholders' equity	4,313,915	4,056,442
Total liabilities and shareholders' equity	<u>\$ 28,846,809</u>	<u>\$ 26,939,781</u>

See notes to consolidated financial statements

UMPQUA HOLDINGS CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF INCOME

For the Years Ended December 31, 2019, 2018 and 2017

	2019	2018	2017
(in thousands, except per share amounts)			
INTEREST INCOME			
Interest and fees on loans and leases	\$ 1,051,077	\$ 972,114	\$ 871,318
Interest and dividends on investment securities:			
Taxable	56,150	76,014	57,987
Exempt from federal income tax	7,400	8,368	8,725
Dividends	2,269	1,988	1,491
Interest on temporary investments and interest bearing deposits	14,180	8,665	4,380
Total interest income	1,131,076	1,067,149	943,901
INTEREST EXPENSE			
Interest on deposits	167,941	92,685	45,582
Interest on securities sold under agreement to repurchase and federal funds purchased	2,092	506	475
Interest on borrowings	17,564	13,604	14,159
Interest on junior subordinated debentures	22,845	21,715	18,000
Total interest expense	210,442	128,510	78,216
Net interest income	920,634	938,639	865,685
PROVISION FOR LOAN AND LEASE LOSSES	72,515	55,905	47,254
Net interest income after provision for loan and lease losses	848,119	882,734	818,431
NON-INTEREST INCOME			
Service charges on deposits	64,514	62,124	61,469
Brokerage revenue	15,877	16,480	16,083
Residential mortgage banking revenue, net	101,810	118,235	136,276
(Loss) gain on sale of debt securities, net	(7,184)	14	27
Gain (loss) on equity securities, net	83,475	(1,484)	—
Gain on loan and lease sales, net	10,467	7,834	18,012
Loss on junior subordinated debentures carried at fair value	—	—	(14,727)
BOLI income	8,406	8,297	8,214
Other income	62,459	67,917	53,133
Total non-interest income	339,824	279,417	278,487
NON-INTEREST EXPENSE			
Salaries and employee benefits	420,373	425,575	438,180
Occupancy and equipment, net	144,236	148,724	150,545
Communications	14,583	17,233	18,932
Marketing	13,255	11,313	8,918
Services	54,111	62,730	45,302
FDIC assessments	11,233	16,094	15,014
Loss (gain) on other real estate owned, net	3,863	867	(557)
Intangible amortization	5,618	6,166	6,756
Merger related expenses	—	—	9,324
Other expenses	51,768	50,763	55,461
Total non-interest expense	719,040	739,465	747,875
Income before provision for income taxes	468,903	422,686	349,043
Provision for income taxes	114,808	106,423	106,730
Net income	\$ 354,095	\$ 316,263	\$ 242,313
Earnings per common share:			
Basic	\$1.61	\$1.44	\$1.10
Diluted	\$1.60	\$1.43	\$1.10
Weighted average number of common shares outstanding:			
Basic	220,339	220,280	220,251
Diluted	220,650	220,737	220,836

See notes to consolidated financial statements

UMPQUA HOLDINGS CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME For the Years Ended December 31, 2019, 2018 and 2017

(in thousands)	2019	2018	2017
Net income	\$ 354,095	\$ 316,263	\$ 242,313
Available for sale securities:			
Unrealized gains (losses) arising during the period	86,029	(35,205)	1,301
Income tax (expense) benefit related to unrealized gains (losses)	(22,127)	8,911	(503)
Reclassification adjustment for net realized losses (gains) in earnings	7,184	(14)	(27)
Income tax (benefit) expense related to realized losses (gains)	(1,848)	4	10
Net change in unrealized gains (losses) for available for sale securities	69,238	(26,304)	781
Junior subordinated debentures, at fair value:			
Unrealized gains (losses) arising during the period	25,855	(23,268)	—
Income tax (expense) benefit related to unrealized gains (losses)	(6,630)	5,940	—
Net change in unrealized gains (losses) for junior subordinated debentures, at fair value	19,225	(17,328)	—
Other comprehensive income (loss), net of tax	88,463	(43,632)	781
Comprehensive income	\$ 442,558	\$ 272,631	\$ 243,094

See notes to consolidated financial statements

UMPQUA HOLDINGS CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
For the Years Ended December 31, 2019, 2018 and 2017

(in thousands, except shares)	Common Stock		Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total
	Shares	Amount			
Balance at January 1, 2017	220,177,030	\$ 3,515,299	\$ 381,126	\$ (21,343)	\$ 3,875,082
Net income			242,313		242,313
Other comprehensive income, net of tax				781	781
Stock-based compensation		9,612			9,612
Stock repurchased and retired	(468,555)	(8,614)			(8,614)
Issuances of common stock under stock plans	440,349	961			961
Cash dividends on common stock (\$0.68 per share)			(150,768)		(150,768)
Tax rate effect reclassification ⁽¹⁾			4,430	(4,430)	—
Balance at December 31, 2017	<u>220,148,824</u>	<u>\$ 3,517,258</u>	<u>\$ 477,101</u>	<u>\$ (24,992)</u>	<u>\$ 3,969,367</u>
Balance at January 1, 2018	220,148,824	\$ 3,517,258	\$ 477,101	\$ (24,992)	\$ 3,969,367
Net income			316,263		316,263
Other comprehensive loss, net of tax				(43,632)	(43,632)
Stock-based compensation		7,513			7,513
Stock repurchased and retired	(557,648)	(12,962)			(12,962)
Issuances of common stock under stock plans	663,863	1,065			1,065
Cash dividends on common stock (\$0.82 per share)			(181,172)		(181,172)
Junior subordinated debentures, at fair value, cumulative effect adjustment ⁽²⁾			(9,710)	9,710	—
Balance at December 31, 2018	<u>220,255,039</u>	<u>\$ 3,512,874</u>	<u>\$ 602,482</u>	<u>\$ (58,914)</u>	<u>\$ 4,056,442</u>
Balance at January 1, 2019	220,255,039	\$ 3,512,874	\$ 602,482	\$ (58,914)	\$ 4,056,442
Net income			354,095		354,095
Other comprehensive income, net of tax				88,463	88,463
Stock-based compensation		8,373			8,373
Stock repurchased and retired	(415,403)	(7,268)			(7,268)
Issuances of common stock under stock plans	389,646	21			21
Cash dividends on common stock (\$0.84 per share)			(185,967)		(185,967)
Leases, cumulative effect adjustment ⁽³⁾			(244)		(244)
Balance at December 31, 2019	<u>220,229,282</u>	<u>\$ 3,514,000</u>	<u>\$ 770,366</u>	<u>\$ 29,549</u>	<u>\$ 4,313,915</u>

⁽¹⁾ The reclassification adjustment from accumulated other comprehensive income (loss) to retained earnings related to the application of changes in law with the Tax Cuts and Jobs Act of 2017.

⁽²⁾ The cumulative effect adjustment from retained earnings to accumulated other comprehensive income (loss) related to the implementation of new accounting guidance for the junior subordinated debentures that the Company previously elected to fair value on a recurring basis.

⁽³⁾ The cumulative effect adjustment relates to the implementation of new accounting guidance for leases. Refer to Note 1 for discussion of the new accounting guidance.

See notes to consolidated financial statements

UMPQUA HOLDINGS CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOW
For the Years Ended December 31, 2019, 2018 and 2017

(in thousands)	2019	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	\$ 354,095	\$ 316,263	\$ 242,313
Adjustments to reconcile net income to net cash provided by operating activities:			
Deferred income tax (benefit) expense	(3,544)	18,812	77,428
Amortization of investment premiums, net	26,449	9,917	29,340
Loss (gain) on sales of investment securities, net	7,184	(14)	(27)
Loss (gain) on sale of other real estate owned, net	851	(410)	(703)
Valuation adjustment on other real estate owned	3,012	1,277	146
Provision for loan and lease losses	72,515	55,905	47,254
Change in cash surrender value of bank owned life insurance	(8,443)	(8,396)	(8,300)
Depreciation, amortization and accretion	43,286	52,345	57,968
Gain on sale of premises and equipment	(2,821)	(2,037)	(1,442)
Gain on store divestiture	(1,225)	(1,157)	—
Gain on Pivotus divestiture	—	(5,778)	—
Additions to residential mortgage servicing rights carried at fair value	(25,169)	(29,069)	(33,445)
Change in fair value residential mortgage servicing rights carried at fair value	44,783	13,195	23,267
Gain on redemption of junior subordinated debentures at amortized cost	—	(1,043)	—
Change in junior subordinated debentures carried at fair value	—	—	14,946
Stock-based compensation	8,373	7,513	9,612
Net (increase) decrease in equity and other investments	(16,702)	900	(1,291)
(Gain) loss on equity securities, net	(83,475)	1,484	—
Gain on sale of loans and leases, net	(95,353)	(77,772)	(145,007)
Change in fair value of loans held for sale	(10,557)	2,606	(453)
Origination of loans held for sale	(3,089,698)	(2,872,994)	(3,414,431)
Proceeds from sales of loans held for sale	2,838,171	3,033,383	3,669,679
Change in other assets and liabilities:			
Net (increase) decrease in other assets	(141,844)	(29,179)	1,041
Net (decrease) increase in other liabilities	(367)	19,493	(52,388)
Net cash (used in) provided by operating activities	<u>(80,479)</u>	<u>505,244</u>	<u>515,507</u>
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of investment securities available for sale	(697,969)	(449,359)	(952,819)
Proceeds from investment securities available for sale	918,658	440,241	559,746
Proceeds from investment securities held to maturity	563	493	520
Proceeds from sale of equity securities	81,853	—	—
Purchases of restricted equity securities	(220,200)	(45,601)	(243,171)
Redemption of restricted equity securities	214,005	48,841	245,191
Net change in loans and leases	(1,085,272)	(1,618,333)	(1,881,924)
Proceeds from sales of loans and leases	251,782	164,037	271,124
Change in premises and equipment	(12,676)	(8,989)	(4,278)
Proceeds from bank owned life insurance death benefit	1,869	1,481	1,601
Purchase of bank owned life insurance	—	—	(750)
Proceeds from sale of mortgage servicing rights	34,401	—	—
Net change in proceeds from FDIC indemnification asset	—	—	632
Proceeds from sales of other real estate owned	7,481	3,223	6,705
Net cash paid in store divestiture	(44,646)	(35,219)	—
Net cash used in investing activities	<u>\$ (550,151)</u>	<u>\$ (1,499,185)</u>	<u>\$ (1,997,423)</u>

UMPQUA HOLDINGS CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOW (Continued)
For the Years Ended December 31, 2018, 2017 and 2016

(in thousands)	2019	2018	2017
CASH FLOWS FROM FINANCING ACTIVITIES:			
Net increase in deposit liabilities	\$ 1,393,940	\$ 1,226,507	\$ 928,462
Net increase (decrease) in securities sold under agreements to repurchase	14,157	2,852	(58,649)
Proceeds from borrowings	940,670	100,000	205,000
Repayment of borrowings	(785,670)	(150,652)	(254,998)
Repayment of junior subordinated debentures at amortized cost	—	(10,598)	—
Dividends paid on common stock	(185,101)	(173,914)	(145,398)
Proceeds from stock options exercised	21	1,065	961
Repurchase and retirement of common stock	(7,268)	(12,962)	(8,614)
Net cash provided by financing activities	1,370,749	982,298	666,764
Net increase (decrease) in cash and cash equivalents	740,119	(11,643)	(815,152)
Cash and cash equivalents, beginning of period	622,637	634,280	1,449,432
Cash and cash equivalents, end of period	\$ 1,362,756	\$ 622,637	\$ 634,280

SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:

Cash paid during the period for:

Interest	\$ 209,526	\$ 124,333	\$ 80,015
Income taxes	\$ 129,616	\$ 71,985	\$ 30,087

SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING AND FINANCING ACTIVITIES:

Change in unrealized gains and losses on investment securities available for sale, net of taxes	\$ 69,238	\$ (26,304)	\$ 781
Change in unrealized gains and losses on junior subordinated debentures carried at fair value, net of taxes	\$ 19,225	\$ (17,328)	\$ —
Junior subordinated debentures, at fair value, cumulative effect adjustment	\$ —	\$ 9,710	\$ —
Tax rate effect reclassification	\$ —	\$ —	\$ (4,430)
Cash dividend declared on common stock and payable after period-end	\$ 46,248	\$ 46,254	\$ 39,634
Change in GNMA mortgage loans recognized due to repurchase option	\$ (4,581)	\$ (3,510)	\$ 1,571
Transfer of loans to other real estate owned	\$ 3,817	\$ 3,314	\$ 11,222
Transfers from other real estate owned to loans due to internal financing	\$ 136	\$ —	\$ 78

See notes to consolidated financial statements

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 – Significant Accounting Policies

Nature of Operations-Umpqua Holdings Corporation (the "Company" or "Umpqua") is a financial holding company with headquarters in Portland, Oregon, that is engaged primarily in the business of commercial and retail banking and the delivery of retail brokerage services. The Company provides a wide range of banking, wealth management, mortgage and other financial services to corporate, institutional and individual customers through its wholly-owned banking subsidiary Umpqua Bank (the "Bank"). The Company engages in the retail brokerage business through its wholly-owned subsidiary Umpqua Investments, Inc. ("Umpqua Investments"). The Bank also has a wholly-owned subsidiary, Financial Pacific Leasing Inc. ("FinPac"), a commercial equipment leasing company.

Pivotus Ventures, Inc., was a wholly-owned subsidiary of Umpqua Holdings Corporation, which used a startup dynamic and collaboration with other institutions to validate, develop, and test new bank platforms. In October 2018, the Company sold substantially all of the assets of this subsidiary.

The Company and its subsidiaries are subject to regulation by certain federal and state agencies and undergo periodic examination by these regulatory agencies.

Basis of Financial Statement Presentation-The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States and with prevailing practices within the banking and securities industries. In preparing such financial statements, management is required to make certain estimates and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the balance sheet and the reported amounts of revenues and expenses for the reporting period. Actual results could differ significantly from those estimates. Material estimates that are particularly susceptible to significant change relate to the determination of the allowance for loan and lease losses, the valuation of mortgage servicing rights, the fair value of junior subordinated debentures, and the valuation of goodwill.

Consolidation-The accompanying consolidated financial statements include the accounts of the Company and its subsidiaries, including the Bank and Umpqua Investments. All significant intercompany balances and transactions have been eliminated in consolidation. As of December 31, 2019, the Company had 23 wholly-owned trusts ("Trusts") that were formed to issue trust preferred securities and related common securities of the Trusts. The Company has not consolidated the accounts of the Trusts in its consolidated financial statements as they are considered to be variable interest entities for which the Company is not a primary beneficiary. As a result, the junior subordinated debentures issued by the Company to the Trusts are reflected on the Company's consolidated balance sheet as junior subordinated debentures.

Subsequent events-The Company has evaluated events and transactions through the date the consolidated financial statements were issued for potential recognition or disclosure.

Cash and Cash Equivalents-Cash and cash equivalents include cash and due from banks and temporary investments which are federal funds sold and interest bearing balances due from other banks. Cash and cash equivalents generally have a maturity of 90 days or less at the time of purchase.

Equity and Other Securities-Equity and other securities are carried at fair value with realized and unrealized gains or losses recorded in non-interest income.

Investment Securities-Debt securities are classified as *held to maturity* if the Company has both the intent and ability to hold those securities to maturity regardless of changes in market conditions, liquidity needs or changes in general economic conditions. These securities are carried at cost adjusted for amortization of purchase premiums and accretion of purchase discounts, computed by the effective interest method over their contractual lives.

Debt securities are classified as *available for sale* if the Company intends and has the ability to hold those securities for an indefinite period of time, but not necessarily to maturity. Any decision to sell a debt security classified as available for sale would be based on various factors, including significant movements in interest rates, changes in the maturity mix of assets and liabilities, liquidity needs, regulatory capital considerations and other similar factors. Securities available for sale are carried at fair value. Unrealized holding gains or losses are included in other comprehensive income ("OCI") as a separate component of shareholders' equity, net of tax. Realized gains or losses, determined on the basis of the cost of specific securities sold, are included in earnings. Premiums and discounts are amortized or accreted over the life of the related investment security as an adjustment to yield using the effective interest method. Dividend and interest income are recognized when earned.

The Company reviews investment securities on an ongoing basis for the presence of other-than-temporary impairment ("OTTI") or permanent impairment, taking into consideration current market conditions, fair value in relationship to cost, extent and nature of the change in fair value, issuer rating changes and trends, whether the Company intends to sell a security or if it is more likely than not that the Company will be required to sell the security before recovery of its amortized cost basis of the investment, which may be maturity, and other factors. For debt securities, if the Company intends to sell the security or it is more likely than not that the Company will be required to sell the security before recovering its cost basis, the entire impairment loss would be recognized in earnings as an OTTI. If the Company does not intend to sell the security and it is not more likely than not that the Company will be required to sell the security, but does not expect to recover the entire amortized cost basis of the security, only the portion of the impairment loss representing credit losses would be recognized in earnings.

Loans Held for Sale—The Company has elected to account for residential mortgage loans held for sale at fair value. Fair value is determined based on quoted secondary market prices for similar loans, including the implicit fair value of embedded servicing rights. The change in fair value of loans held for sale is primarily driven by changes in interest rates subsequent to loan funding and changes in the fair value of the related servicing asset, resulting in revaluation adjustments to the recorded fair value. The inputs used in the fair value measurements are considered Level 2 inputs. The use of the fair value option allows the change in the fair value of loans to more effectively offset the change in the fair value of derivative instruments that are used as economic hedges to loans held for sale. Loan origination fees and direct origination costs are recognized immediately in net income. Interest income on loans held for sale is included in interest income in the *Consolidated Statements of Income* and recognized when earned. Loans held for sale are placed on nonaccrual in a manner consistent with loans held for investment. The Company recognizes the gain or loss on the sale of loans when the sales criteria for derecognition are met.

Acquired Loans and Leases—Purchased loans and leases are recorded at their fair value at the acquisition date. Credit discounts are included in the determination of fair value; therefore, an allowance for loan and lease losses is not recorded at the acquisition date. Acquired loans are evaluated upon acquisition and classified as either purchased impaired or purchased non-impaired. Purchased impaired loans reflect credit deterioration since origination such that it is probable at acquisition that the Company will be unable to collect all contractually required payments.

Purchased impaired loans are aggregated into pools based on individually evaluated common risk characteristics and aggregate expected cash flows are estimated for each pool. A pool is accounted for as a single asset with a single interest rate, cumulative loss rate and cash flow expectation. The risk characteristics used to aggregate the purchased impaired loans into different pools include risk rating, underlying collateral, type of interest rate (fixed or adjustable), types of amortization, loan purpose, and other similar factors. A loan will be removed from a pool of loans only if the loan is sold, foreclosed, or assets are received in full satisfaction of the loan, and will be removed from the pool at its carrying value. If an individual loan is removed from a pool of loans, the difference between its relative carrying amount and the cash, fair value of the collateral, or other assets received will be recognized in income immediately as interest income on loans and would not affect the effective yield used to recognize the accretable yield on the remaining pool. If, at acquisition, the loans are collateral dependent and acquired primarily for the rewards of ownership of the underlying collateral, or if cash flows expected to be collected cannot be reasonably estimated, no accrual of income occurs.

The cash flows expected to be received over the life of the pool are estimated by management. These cash flows are input into a loan accounting system which calculates the carrying values of the pools and underlying loans, book yields, effective interest income and impairment, if any, based on actual and projected events. Default rates, loss severity, and prepayment speed assumptions are periodically reassessed and updated within the accounting system to update management's expectation of future cash flows. The excess of the cash flows expected to be collected over a pool's carrying value is considered to be the accretable yield and is recognized as interest income over the estimated life of the pool using the effective yield method. The accretable yield may change due to changes in the timing and amounts of expected cash flows. Changes in the accretable yield are disclosed quarterly.

The excess of the undiscounted contractual amounts due over the cash flows expected to be collected is considered to be the nonaccretable difference. The nonaccretable difference represents the estimate of the credit losses expected to occur and was considered in determining the fair value of the loans as of the acquisition date. Subsequent to the acquisition date, any increases in expected cash flows over those expected at the purchase date in excess of fair value are adjusted through a change to the accretable yield on a prospective basis. Any subsequent decreases in expected cash flows attributable to credit deterioration are recognized by recording a provision for loan losses. The purchased impaired loans acquired are subject to the Company's credit review and monitoring.

The purchased impaired loan portfolio also includes revolving lines of credit with funded and unfunded commitments. The funded portion of these loans, representing the balances outstanding at the time of acquisition, are accounted for as purchased impaired. The unfunded portion of these loans as of the acquisition date as well as any additional advances on these loans subsequent to the acquisition date are not classified as purchased impaired, and are accounted for similar to newly originated loans.

For purchased non-impaired loans, the difference between the fair value and unpaid principal balance of the loan at the acquisition date is amortized or accreted to interest income using the effective interest method over the remaining period to contractual maturity or until repayment in full or sale of the loan.

Originated Loans and Leases-Loans are stated at the amount of unpaid principal, net of unearned income and any deferred fees or costs. All discounts and premiums are recognized over the contractual life of the loan as yield adjustments. Leases are recorded at the amount of minimum future lease payments receivable and estimated residual value of the leased equipment, net of unearned income and any deferred fees. Initial direct costs related to lease originations are deferred as part of the investment in direct financing leases and amortized over their term using the effective interest method. Unearned lease income is amortized over the term using the effective interest method.

Loans are classified as impaired when, based on current information and events, it is probable that the Bank will be unable to collect the scheduled payments of principal and interest when due, in accordance with the terms of the original loan agreement. The carrying value of impaired loans is based on the present value of expected future cash flows (discounted at each loan's effective interest rate), estimated note sale price, or, for collateral dependent loans, at fair value of the collateral, less selling costs. If the measurement of each impaired loan's value is less than the recorded investment in the loan, the Bank recognize this impairment and adjust the carrying value of the loan to fair value through the allowance for loan and lease losses. This can be accomplished by charging off the impaired portion of the loan or establishing a specific component to be provided for in the allowance for loan and lease losses.

Income Recognition on Non-Accrual and Impaired Loans- Loans, including impaired loans, are classified as non-accrual if the collection of principal and interest is doubtful. Generally, this occurs when a loan is past due as to maturity or payment of principal or interest by 90 days or more, unless such loans are well-secured and in the process of collection. If a loan or portion thereof is partially charged-off, the loan is considered impaired and classified as non-accrual. Loans that are less than 90 days past due may also be classified as non-accrual if repayment in full of principal and/or interest is in doubt.

Generally, when a loan is classified as non-accrual, all uncollected accrued interest is reversed from interest income and the accrual of interest income is terminated. In addition, any cash payments subsequently received are applied as a reduction of principal outstanding. In cases where the future collectability of the principal balance in full is expected, interest income may be recognized on a cash basis. A loan may be restored to accrual status when the borrower's financial condition improves so that full collection of future contractual payments is considered likely. For those loans placed on non-accrual status due to payment delinquency, return to accrual status will generally not occur until the borrower demonstrates repayment ability over a period of not less than six months.

Loans and leases are reported as past due when installment payments, interest payments, or maturity payments are past due based on contractual terms. All loans and leases determined to be impaired are individually assessed for impairment except for homogeneous loans which are collectively evaluated for impairment. The specific factors considered in determining that a loan or lease is impaired include borrower financial capacity, current economic, business and market conditions, collection efforts, collateral position and other factors deemed relevant. Generally, impaired loans and leases are placed on non-accrual status and all cash receipts are applied to the principal balance. Continuation of accrual status and recognition of interest income on impaired loans and leases is generally limited to performing restructured loans.

Loans are reported as troubled debt restructurings when the Bank grants a more than insignificant concession(s) to a borrower experiencing financial difficulties that it would not otherwise consider. Examples of such concessions include forgiveness of principal or accrued interest, extending the maturity date or providing a lower interest rate than would be normally available for a transaction of similar risk. As a result of these concessions, restructured loans are impaired as the Bank will not collect all amounts due, both principal and interest, in accordance with the terms of the original loan agreement. Impairment reserves on non-collateral dependent restructured loans are measured by comparing the present value of expected future cash flows on the restructured loans discounted at the interest rate of the original loan agreement to the loan's carrying value. These impairment reserves are recognized as a specific component to be provided for in the allowance for loan and lease losses.

The decision to classify a loan as impaired is made by the Bank's Allowance for Loan and Lease Losses ("ALLL") Committee. The ALLL Committee meets regularly to review the status of all problem and potential problem loans. If the ALLL Committee concludes a loan is impaired but recovery of principal and interest is expected, an impaired loan may remain on accrual status.

Allowance for Loan and Lease Losses- The Company performs regular credit reviews of the loan and lease portfolio to determine the credit quality of the portfolio and the adherence to underwriting standards. When loans and leases are originated, they are assigned a risk rating that is reassessed periodically during the term of the loan. The Company's risk rating methodology assigns risk ratings ranging from 1 to 10, where a higher rating represents higher risk. The 10 risk rating categories are a primary factor in determining an appropriate amount for the allowance for loan and lease losses. The ALLL Committee, is responsible for, among other things, regularly reviewing the ALLL methodology, including loss factors, and ensuring that it is designed and applied in accordance with generally accepted accounting principles. The ALLL Committee reviews and approves loans and leases recommended for impaired status. The ALLL Committee also approves removing loans and leases from impaired status. The Company's Audit and Compliance Committee provides board oversight of the ALLL process and reviews and approves the ALLL methodology on a quarterly basis.

Each risk rating is assessed an inherent credit loss factor that determines the amount of the allowance for loan and lease losses provided for that group of loans and leases with similar risk rating and loan type. Credit loss factors may vary by region based on management's belief that there may ultimately be different credit loss rates experienced in each region.

Regular credit reviews of the portfolio also identify loans that are considered potentially impaired. Potentially impaired loans are referred to the ALLL Committee which reviews and approves designated loans as impaired. When the Company identifies a loan as impaired, the impairment is measured using discounted cash flows or estimated note sale price, except when the sole remaining source of the repayment for the loan is the liquidation of the collateral. In these cases, the current fair value of the collateral is used, less selling costs, instead of discounted cash flows. If it is determined that the value of the impaired loan is less than the recorded investment in the loan, the Company will either recognize an impairment reserve as a specific component to be provided for in the allowance for loan and lease losses or will charge-off the impaired balance on collateral dependent loans if it is determined that such amount represents a confirmed loss. The combination of the risk rating-based allowance component and the impairment reserve allowance component lead to an allocated allowance for loan and lease losses.

The Bank may also maintain an unallocated allowance amount to provide for other credit losses inherent in a loan and lease portfolio that may not have been contemplated in the credit loss factors. This unallocated amount generally comprises less than 5% of the allowance, but may be maintained at higher levels during times of economic conditions characterized by falling real estate values. The unallocated amount is reviewed periodically based on trends in credit losses, the results of credit reviews and overall economic trends.

As adjustments become necessary, they are reported in earnings in the periods in which they become known as a change in the provision for loan and lease losses and a corresponding charge to the allowance. Loans, or portions thereof, deemed uncollectible are charged to the allowance. Provisions for losses, and recoveries on loans previously charged-off, are added to the allowance.

The adequacy of the ALLL is monitored on a regular basis and is based on management's evaluation of numerous factors. These factors include the quality of the current loan portfolio; the trend in the loan portfolio's risk ratings; current economic conditions; loan concentrations; loan growth rates; past-due and non-performing trends; evaluation of specific loss estimates for all significant problem loans; historical charge-off and recovery experience; and other pertinent information.

Management believes that the ALLL was adequate as of December 31, 2019. There is, however, no assurance that future loan losses will not exceed the levels provided for in the ALLL and could possibly result in additional charges to the provision for loan and lease losses. A substantial percentage of the Company's loan portfolio is secured by real estate, and as a result, a significant decline in real estate market values may require an increase in the ALLL. In addition, as of January 1, 2020, the Company has adopted Accounting Standards Update No. 2016-13, Financial Instruments —Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, which is commonly referred to as "CECL." This accounting change will have a significant impact on how our allowance for credit losses is calculated, as well as the related disclosures.

Reserve for Unfunded Commitments-A reserve for unfunded commitments ("RUC") is maintained at a level that, in the opinion of management, is adequate to absorb probable losses associated with the Bank's commitment to lend funds under existing agreements, such as letters or lines of credit. Management determines the adequacy of the reserve for unfunded commitments based upon reviews of individual credit facilities, current economic conditions, the risk characteristics of the various categories of commitments and other relevant factors. The reserve is based on estimates, and ultimate losses may vary from the current estimates. These estimates are evaluated on a regular basis and, as adjustments become necessary, they are reported in earnings in the periods in which they become known. Draws on unfunded commitments that are considered uncollectible at the time funds are advanced are charged to the allowance for loan and lease losses. Provisions for unfunded commitment losses are added to the reserve for unfunded commitments, which is included in the *Other Liabilities* section of the consolidated balance sheets.

Loan and Lease Fees and Direct Loan Origination Costs-Origination and commitment fees and direct loan origination costs for loans and leases held for investment are deferred and recognized as an adjustment to the yield over the life of the portfolio loans and leases.

Restricted Equity Securities-Restricted equity securities consists mostly of the Bank's investment in Federal Home Loan Bank of Des Moines ("FHLB") stock that is carried at par value, which reasonably approximates its fair value. Management periodically evaluates FHLB stock for other-than-temporary or permanent impairment. Management's determination of whether these investments are impaired is based on its assessment of the ultimate recoverability of cost rather than by recognizing temporary declines in value.

As a member of the FHLB system, the Bank is required to maintain a minimum level of investment in FHLB stock based on specific percentages of its outstanding mortgages, total assets, or FHLB advances. At December 31, 2019, the Bank's minimum required investment in FHLB stock was \$46.2 million. The Bank may request redemption at par value of any stock in excess of the minimum required investment. Stock redemptions are at the discretion of the FHLB.

Premises and Equipment-Premises and equipment are stated at cost less accumulated depreciation and amortization. Depreciation is provided over the estimated useful life of equipment, generally three to ten years, on a straight-line or accelerated basis. Depreciation is provided over the estimated useful life of premises, up to 39 years, on a straight-line or accelerated basis. Generally, leasehold improvements are amortized or accreted over the life of the related lease, or the life of the related asset, whichever is shorter. Expenditures for major renovations and betterments of the Company's premises and equipment are capitalized. The Company purchases, as well as internally develops and customizes, certain software to enhance or perform internal business functions. Software development costs incurred in the preliminary project stages are charged to non-interest expense. Costs associated with designing software configuration, installation, coding programs and testing systems are capitalized and amortized using the straight-line method over three to seven years. Implementation costs incurred for software that is part of a hosting arrangement are capitalized in other assets and amortized on a straight-line basis over the life of the contract. Management reviews long-lived assets anytime that a change in circumstance indicates that the carrying amount of these assets may not be recoverable.

Goodwill and Other Intangibles-Intangible assets are comprised of goodwill and other intangibles acquired in business combinations. Goodwill is not amortized but instead is periodically tested for impairment. Intangible assets with definite useful lives are amortized to their estimated residual values over their respective estimated useful lives, and also reviewed for impairment. Amortization of intangible assets is included in non-interest expense in the *Consolidated Statements of Income*.

On at least an annual basis, goodwill is assessed for impairment at the reporting unit level either qualitatively or quantitatively. Additionally, the Company performs a goodwill impairment evaluation on an interim basis when events or circumstances indicate impairment potentially exists. A significant amount of judgment is involved in determining if an indicator of impairment has occurred. Such indicators may include, among others, a significant decline in expected future cash flows; a sustained, significant decline in the Company's stock price and market capitalization; a significant adverse change in legal factors or in the business climate; adverse action or assessment by a regulator; and unanticipated competition. If the qualitative assessment results indicate that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then the quantitative impairment test is required. If the fair value of the reporting unit is less than its carrying amount, an impairment charge would be recorded for the amount by which the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill allocated to the reporting unit. In 2019, the Company elected to change the date of the annual goodwill impairment analysis to October 31 from the previous date of December 31. The Company determined that the date change allows for additional resources and time to analyze the factors that could affect goodwill prior to financial statement reporting. The Company believes this change is immaterial and would not change the impairment analysis results.

Residential Mortgage Servicing Rights ("MSR")- The Company determines its classes of servicing assets based on the asset type being serviced along with the methods used to manage the risk inherent in the servicing assets, which includes the market inputs used to value the servicing assets. The Company measures its residential mortgage servicing assets at fair value and reports changes in fair value through earnings. Fair value adjustments encompass market-driven valuation changes and the runoff in value that occurs from the passage of time, which are separately disclosed. Under the fair value method, the MSR is carried in the balance sheet at fair value and the changes in fair value are reported in earnings under the caption residential mortgage banking revenue, net in the period in which the change occurs.

The expected life of the loans underlying the MSR can vary from management's estimates due to prepayments by borrowers, especially when rates change significantly. Prepayments outside of management's estimates would impact the recorded value of the residential mortgage servicing rights. The value of the residential mortgage servicing rights is also dependent upon the discount rate used in the model, which management reviews on an ongoing basis. A significant increase in the discount rate would reduce the value of residential mortgage servicing rights.

GNMA Loan Sales-The Company originates government guaranteed loans which are sold to Government National Mortgage Association ("GNMA"). Pursuant to GNMA servicing guidelines, the Company has the unilateral right to repurchase certain delinquent loans (loans past due 90 days or more) sold to GNMA, if the loans meet defined delinquent loan criteria. As a result of this unilateral right, once the delinquency criteria have been met, and regardless of whether the repurchase option has been exercised, the Company accounts for the loans as if they had been repurchased. The Company recognizes these loans within loans and leases, net and also recognizes a corresponding liability that is recorded in other liabilities. If the loan is repurchased, the liability is settled and the loan remains.

SBA/USDA Loans Sales, Servicing, and Commercial Servicing Asset-The Bank, on a limited basis, sells or transfers loans, including the guaranteed portion of Small Business Administration ("SBA") and United States Department of Agriculture ("USDA") loans (with servicing retained) for cash proceeds. The Bank records a servicing asset when it sells a loan and retains the servicing rights. The servicing asset is recorded at fair value upon sale, and the fair value is estimated by discounting estimated net future cash flows from servicing using discount rates that approximate current market rates and using estimated prepayment rates. Subsequent to initial recognition, the servicing rights are carried at the lower of amortized cost or fair value, and are amortized in proportion to, and over the period of, the estimated net servicing income.

For purposes of evaluating and measuring impairment, the fair value of Commercial and SBA servicing rights are measured using a discounted estimated net future cash flow model as described above. Any impairment is measured as the amount by which the carrying value of servicing rights for an interest rate-stratum exceeds its fair value. No impairment charges were recorded for the years ended December 31, 2019, 2018 and 2017, related to these servicing assets.

A premium over the adjusted carrying value is received upon the sale of the guaranteed portion of an SBA or USDA loan. The Bank's investment in an SBA or USDA loan is allocated among the sold and retained portions of the loan based on the relative fair value of each portion at the time of loan origination, adjusted for payments and other activities. Because the portion retained does not carry an SBA or USDA guarantee, part of the gain recognized on the sold portion of the loan is deferred and amortized as a yield enhancement on the retained portion in order to obtain a market equivalent yield.

Revenue Recognition-The majority of the Company's revenues come from interest income and other sources, including loans, leases, securities, and derivatives. The Company recognizes income in accordance with the applicable accounting guidance for these revenue sources. The Company's revenues that are within the scope of Accounting Standards Codification Topic 606 are presented within non-interest income and include service charges on deposits, brokerage revenue, and interchange income. The gain (loss) on the sale of other real estate owned is included in non-interest expense.

Revenue within the contracts with customers guidance is recognized when obligations under the terms of a contract with customers are satisfied. Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring goods or providing services. When the amount of consideration is variable, the Company will only recognize revenue to the extent that it is probable that the cumulative amount recognized will not be subject to a significant reversal in the future. Substantially all of the Company's contracts with customers have expected durations of one year or less and payments are typically due when or as the services are rendered or shortly thereafter. When third parties are involved in providing services to customers, the Company recognizes revenue on a gross basis when it has control over those services being provided to the customer; otherwise, revenue is recognized for the net amount of any fee or commission.

Income Taxes-Income taxes are accounted for using the asset and liability method. Under this method a deferred tax asset or liability is determined based on the enacted tax rates which will be in effect when the differences between the financial statement carrying amounts and tax basis of existing assets and liabilities are expected to be reported in the Company's income tax returns. The effect on deferred taxes of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are established to reduce the net carrying amount of deferred tax assets ("DTA") if it is determined to be more likely than not, that all or some portion of the potential deferred tax asset will not be realized.

Deferred tax assets are recognized subject to management's judgment that realization is "more likely than not." Uncertain tax positions that meet the more likely than not recognition threshold are measured to determine the amount of benefit to recognize. An uncertain tax position is measured at the amount of benefit that management believes has a greater than 50% likelihood of realization upon settlement.

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the DTA will or will not be realized. The Company's ultimate realization of the DTA is dependent upon the generation of future taxable income during the periods in which temporary differences become deductible. Management considers the nature and amount of historical and projected future taxable income, the scheduled reversal of deferred tax assets and liabilities, and available tax planning strategies in making this assessment. The amount of deferred taxes recognized could be impacted by changes to any of these variables.

The Company earns Investment Tax Credits on certain equipment leases and use the deferral method to account for these tax credits. Under this method, the Investment Tax Credits are recognized as a reduction of depreciation expense over the life of the asset.

Derivatives-The Bank enters into forward delivery contracts to sell residential mortgage loans or mortgage-backed securities to broker/dealers at specific prices and dates in order to hedge the interest rate risk in its portfolio of mortgage loans held for sale and its residential mortgage loan commitments. The commitments to originate mortgage loans held for sale and the related forward delivery contracts are considered derivatives. The Bank also executes interest rate swaps with commercial banking customers to facilitate their respective risk management strategies. Those interest rate swaps are hedged by simultaneously entering into an offsetting interest rate swap that the Bank executes with a third party, such that the Bank minimizes its net risk exposure. The Company considers all free-standing derivatives as economic hedges and recognizes these derivatives as either assets or liabilities in the balance sheet, and requires measurement of those instruments at fair value through adjustments to current earnings. None of the Company's derivatives are designated as hedging instruments.

The fair value of the derivative residential mortgage loan commitments is estimated using the net present value of expected future cash flows. Assumptions used include pull-through rate assumption based on historical information, current mortgage interest rates, the stage of completion of the underlying application and underwriting process, direct origination costs yet to be incurred, the time remaining until the expiration of the derivative loan commitment, and the expected net future cash flows related to the associated servicing of the loan.

Operating Segments- Public enterprises are required to report certain information about their operating segments in its financial statements. They are also required to report certain enterprise-wide information about the Company's products and services, its activities in different geographic areas, and its reliance on major customers. The basis for determining the Company's operating segments is the manner in which management operates the business. The Company reports four primary segments, which are also the Company's reporting units: Wholesale Bank, Wealth Management, Retail Bank, and Home Lending with the remainder as Corporate and other.

Stock-Based Compensation- The Company recognizes expense in the income statement for the grant-date fair value of restricted stock awards issued to employees over the employees' requisite service period (generally the vesting period). An estimate of expected forfeitures is included in the calculation of stock-based compensation expense over the vesting period, and actual forfeitures are recognized when they occur. The fair value of the restricted stock awards is based on the Company's share price on the grant date. Restricted stock awards generally vest ratably over three to five years and are recognized as expense over that same period of time.

Certain restricted stock awards (performance share awards) are subject to performance-based and market-based vesting criteria in addition to a requisite service period and cliff vest based on those conditions at the end of three years. Compensation expense is recognized over the service period to the extent restricted stock awards are expected to vest. The fair value of the performance-based restricted stock award grants is estimated as of the grant date using a Monte Carlo simulation pricing model.

Earnings per Share ("EPS")- Basic earnings per common share is computed by dividing net income by the weighted average number of common shares outstanding during the period. Diluted earnings per common share is computed in a similar manner, except that first the denominator is increased to include the number of additional common shares that would have been outstanding if potentially dilutive common shares were issued using the treasury stock method. For all periods presented, restricted stock awards are potentially dilutive instruments issued by the Company. Undistributed losses are not allocated to the nonvested stock-based payment awards as the holders are not contractually obligated to share in the losses of the Company.

Fair Value Measurements- 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. There is a three-level hierarchy for disclosure of assets and liabilities measured or disclosed at fair value. The classification of assets and liabilities within the hierarchy is based on whether the inputs to the valuation methodology used for measurement are observable or unobservable. Observable inputs reflect market-derived or market-based information obtained from independent sources, while unobservable inputs reflect estimates about market data. In general, fair values determined by Level 1 inputs utilize quoted prices for identical assets or liabilities traded in active markets that the Company has the ability to access. Fair values determined by Level 2 inputs utilize inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs include quoted prices for similar assets and liabilities in active markets, and inputs other than quoted prices that are observable for the asset or liability, such as interest rates and yield curves that are observable at commonly quoted intervals. Level 3 inputs are unobservable inputs for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability. In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the level in the fair value hierarchy within which the fair value measurement in its entirety falls has been determined based on the lowest level input that is significant to the fair value measurement in its entirety. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment, and considers factors specific to the asset or liability.

Application of new accounting guidance

As of January 1, 2019, the Company adopted the Financial Accounting Standard Board's ("FASB") Accounting Standard Update ("ASU") No. 2016-02, *Leases (Topic 842)* as well as additional ASUs for enhancement, clarification or transition of the new lease standard (collectively "ASC 842"). ASC 842 requires lessees, among other things, to recognize right-of-use assets and lease liabilities on the balance sheet for those leases classified as operating leases under previous authoritative guidance. This update also introduces new disclosure requirements for leasing arrangements. Refer to *Note 7 - Leases* for further discussion of the Company's accounting policies for leases within the scope of ASC 842.

ASC 842 provides for a number of practical expedients in transition. The Company elected the package of practical expedients, which permitted management to not reassess under the new standard the prior conclusions about lease identification, lease classification and initial direct costs. Management did not elect the use-of-hindsight or the practical expedient pertaining to land easement; the latter not being applicable to the Company. Management also did not elect the practical expedient to not separate lease and non-lease components on real estate leases where the Company is the lessee. In addition, ASC 842 provides practical expedients for an entity's ongoing accounting. The Company elected the short-term lease recognition exemption for certain leases. This means, for those leases that have a term of less than 12 months, the Company did not recognize right-of-use ("ROU") assets or lease liabilities.

The Company adopted ASC 842 by electing the optional practical expedient to use the prospective approach, which allowed the Company to adopt the new standard with a cumulative effect adjustment as of the beginning of the year of adoption with prior year comparative financial information and disclosures remaining as previously reported. Consequently, no adjustments were made to the balance sheet prior to January 1, 2019, and the disclosures required under the new standard are not provided for dates and periods before January 1, 2019. Adoption of the new standard resulted in the recognition of new lease ROU assets of \$110.7 million and lease liabilities of \$119.4 million on the balance sheet for operating leases as of December 31, 2019. The difference between the additional lease assets and lease liabilities, net of the deferred tax impact, was recorded as an adjustment to retained earnings. This standard did not materially impact the consolidated net income and had no impact on cash flows.

In August 2018, the FASB issued ASU No. 2018-15, *Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract (A Consensus of the FASB Emerging Issues Task Force)*. This ASU reduces complexity for the accounting for costs of implementing a cloud computing service arrangement. This ASU aligns the requirements for capitalization of implementation costs incurred in a hosting arrangement that is a service contract with those incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). The ASU requires an entity in a hosting arrangement that is a service contract to follow the guidance in Subtopic 350-40 to determine which implementation costs to capitalize as an asset related to the service contract and which costs to expense. Costs to develop or obtain internal use software that cannot be capitalized under subtopic 350-40, such as training costs and certain data conversion costs, also cannot be capitalized for a hosting arrangement that is a service contract. The capitalized costs will be amortized over the life of the service contract. The amendments in this ASU should be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. The ASU is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019, with early adoption permitted. The Company early adopted the ASU as of January 1, 2019 and will apply the new standard prospectively. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*. The ASU was issued to simplify the subsequent measurement of goodwill and the amendment eliminates Step 2 from the goodwill impairment test. The annual, or interim, goodwill impairment test is performed by comparing the fair value of a reporting unit with its carrying amount. An impairment charge should be recognized for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. In addition, income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit should be considered when measuring the goodwill impairment loss, if applicable. An entity still has the option to perform the qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. The amendment is effective for annual reporting periods beginning after December 31, 2019, with early adoption permitted. The Company early adopted the ASU as of October 1, 2019, to simplify the annual goodwill impairment analysis. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

Recently Issued Accounting Pronouncements

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments — Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* ("CECL"). The ASU is intended to improve financial reporting by requiring timelier recording of credit losses on loans and other financial instruments held by financial institutions and other organizations. Financial institutions and other organizations will now use forward-looking information to better inform their credit loss estimates but will continue to use judgment to determine which loss estimation method is appropriate for their circumstances. The ASU requires enhanced disclosures to help investors and other financial statement users better understand significant estimates and judgments used in estimating credit losses, as well as the credit quality and underwriting standards of an organization's portfolio. These disclosures include qualitative and quantitative requirements that provide additional information about the amounts recorded in the financial statements. In addition, the ASU amends the accounting for credit losses on available-for-sale debt securities and purchased financial assets with credit deterioration.

The ASU is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early application will be permitted for specified periods. The adoption date for the Company was January 1, 2020. The guidance was applied on a modified retrospective basis with the cumulative effect of initially applying the amendments recognized in retained earnings at January 1, 2020. However, certain provisions of the guidance are only required to be applied on a prospective basis.

CECL is not prescriptive in the methodology used to determine the expected credit loss estimate. Therefore, management has flexibility in selecting the methodology. The expected credit losses must be estimated over a financial asset's contractual term, adjusted for prepayments utilizing quantitative and qualitative factors. There are also specific considerations for purchased credit-deteriorated, troubled debt restructured, and collateral dependent loans. CECL also applies to the reserve for unfunded commitments.

The combination of the current expected credit loss, qualitative factors, collateral dependent, troubled debt restructuring, purchased credit deteriorated, and the reserve for unfunded commitments represent the allowance for credit losses ("ACL").

The estimate of expected credit losses is based on relevant information about past events, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amounts. Historical loss experience is the starting point for estimating expected credit losses. Adjustments are made to historical loss experience to reflect differences in asset-specific risk characteristics – e.g. underwriting standards, portfolio mix or asset terms, and differences in economic conditions – both current conditions and reasonable and supportable forecasts. When the Company is not able to make or obtain reasonable and supportable forecasts for the entire life of the financial asset, it has estimated expected credit losses for the remaining life using an approach that reverts to historical credit loss information.

The Company utilizes complex models to obtain reasonable and supportable forecasts; most of the models calculate two predictive metrics, the probability of default ("PD") and loss given default ("LGD"). The PD measures the probability that a loan will default within a given time horizon and primarily measures the adequacy of the debtor's cash flow as the primary source of repayment of the loan or lease. The LGD is the expected loss which would be realized presuming a default has occurred and primarily measures the value of the collateral or other secondary source of repayment related to the collateral. The ACL is measured on a collective (pool) basis when similar characteristics exist. The Company has selected models at the portfolio level using a risk-based approach, with larger, more complex portfolios having more complex models.

The Bank established an Economic Forecast Committee ("EFC"). The purpose of the Committee is to, among other things, determine a reasonable and supportable forecast to be used in developing the Bank's estimate of expected credit losses on financial assets.

For ACL calculation purposes, the EFC considered the financial and economic environment at the time of assessment and different economic scenarios that differed in the levels of severity and sensitivity to the ACL results. The EFC determined the use of a consensus of third-party baseline forecasts was reasonable and supportable as it is based on multiple surveys of baseline forecasts of the U.S. economy from credible subject matter experts and institutions, giving greater consideration to forecasts that were produced most recently. In this consensus scenario, the probability that the economy will perform better than this consensus is equal to the probability that it will perform worse.

Loss factors from the models, prepayment speeds, and qualitative factors are inputs into the Company's CECL accounting application. Once this information is aggregated, the Company uses two methods to calculate the current expected credit loss: 1) the discounted cash flow ("DCF") method, which is used for all loans and leases except lines of credit and 2) the non-discounted cash flow method which is used for lines of credit. The DCF method utilizes the effective interest rate of individual assets to discount the expected credit losses adjusted for prepayments. The difference in the net present value and the amortized cost of the asset will result in the required allowance. The non-discounted cash flow method uses the exposure at default, along with the expected credit losses adjusted for prepayments to calculate the required allowance.

The Bank is finalizing data, model validation, and the assessment of the impact of adoption. Based on the Bank's portfolio composition as of December 31, 2019, and the current economic environment, the management estimates the new guidance will result in an allowance for loan and lease losses between \$213 million to \$219 million. It is estimated this increase will decrease the Bank's tier 1 capital by 24 to 26 basis points and increase the Bank's total risk-based capital by approximately 4 basis points.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement*. The ASU was issued to improve the effectiveness of disclosures surrounding fair value measurements. The ASU removes numerous disclosures from Topic 820 including: transfers between level 1 and 2 of the fair value hierarchy, the policy for timing of transfers between levels, and the valuation process for level 3 fair value measurements. The ASU also modified and added disclosure requirements in regards to changes in unrealized gains and losses included in other comprehensive income, as well as the range and weighted average of unobservable inputs for level 3 fair value measurements. The ASU is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019, with early adoption permitted. The guidance is not expected to have a significant impact on the Company's consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740), Simplifying the Accounting for Income Taxes*. The ASU was issued in an effort to simplify accounting for income taxes by removing specific technical exceptions. Specifically, the guidance will remove the need for companies to analyze whether (1) the exception to the incremental approach for intra-period tax allocation, (2) exceptions to accounting for basis differences when there are ownership changes in foreign investments, and (3) the exception in interim period income tax accounting for year-to-date losses that exceed anticipated losses apply in a given period. The ASU is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020, with early adoption permitted. The Company is currently evaluating the impact of this ASU on the Company's consolidated financial statements.

Note 2 – Cash and Cash Equivalents

The Bank is required to maintain an average reserve balance with the Federal Reserve Bank or maintain such reserve balance in the form of cash. The amount of required reserve balance at December 31, 2019 and 2018 was approximately \$145.6 million and \$129.1 million, respectively, and was met by holding cash and maintaining an average balance with the Federal Reserve Bank.

The Company had restricted cash included in cash and due from banks on the balance sheet of \$86.5 million and \$37.4 million as of December 31, 2019 and 2018, respectively, relating mostly to collateral required on interest rate swaps as discussed in Note 19. At December 31, 2019 and 2018, there was \$590,000 and \$1.2 million, respectively, in restricted cash included in interest bearing cash and temporary investments on the balance sheet, relating to collateral requirements for derivatives for mortgage banking activities.

Note 3 – Investment Securities

The following tables present the amortized cost, unrealized gains, unrealized losses and approximate fair values of debt securities at December 31, 2019 and 2018:

December 31, 2019

(in thousands)	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Available for sale:				
U.S. Treasury and agencies	\$ 642,009	\$ 5,919	\$ (4,324)	\$ 643,604
Obligations of states and political subdivisions	251,531	9,600	(37)	261,094
Residential mortgage-backed securities and collateralized mortgage obligations	1,896,708	18,962	(5,686)	1,909,984
Total available for sale securities	<u>\$ 2,790,248</u>	<u>\$ 34,481</u>	<u>\$ (10,047)</u>	<u>\$ 2,814,682</u>
Held to maturity:				
Residential mortgage-backed securities and collateralized mortgage obligations	\$ 3,260	\$ 1,003	\$ —	\$ 4,263
Total held to maturity securities	<u>\$ 3,260</u>	<u>\$ 1,003</u>	<u>\$ —</u>	<u>\$ 4,263</u>

December 31, 2018

(in thousands)	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Available for sale:				
U.S. Treasury and agencies	\$ 40,002	\$ —	\$ (346)	\$ 39,656
Obligations of states and political subdivisions	308,972	2,785	(2,586)	309,171
Residential mortgage-backed securities and collateralized mortgage obligations	2,696,913	3,590	(72,222)	2,628,281
Total available for sale securities	<u>\$ 3,045,887</u>	<u>\$ 6,375</u>	<u>\$ (75,154)</u>	<u>\$ 2,977,108</u>
Held to maturity:				
Residential mortgage-backed securities and collateralized mortgage obligations	\$ 3,606	\$ 1,038	\$ —	\$ 4,644
Total held to maturity securities	<u>\$ 3,606</u>	<u>\$ 1,038</u>	<u>\$ —</u>	<u>\$ 4,644</u>

Debt securities that were in an unrealized loss position as of December 31, 2019 and 2018 are presented in the following tables, based on the length of time individual securities have been in an unrealized loss position. In the opinion of management, these securities are considered only temporarily impaired due to increases in market interest rates or the widening of market spreads subsequent to the initial purchase of the securities, and not due to concerns regarding the underlying credit of the issuers or the underlying collateral.

December 31, 2019

(in thousands)	Less than 12 Months		12 Months or Longer		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Available for sale:						
U.S. Treasury and agencies	\$ 313,169	\$ 4,324	\$ —	\$ —	\$ 313,169	\$ 4,324
Obligations of states and political subdivisions	4,611	30	1,906	7	6,517	37
Residential mortgage-backed securities and collateralized mortgage obligations	288,866	1,628	402,802	4,058	691,668	5,686
Total temporarily impaired securities	<u>\$ 606,646</u>	<u>\$ 5,982</u>	<u>\$ 404,708</u>	<u>\$ 4,065</u>	<u>\$1,011,354</u>	<u>\$ 10,047</u>

December 31, 2018

(in thousands)	Less than 12 Months		12 Months or Longer		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Available for sale:						
U.S. Treasury and agencies	\$ —	\$ —	\$ 39,656	\$ 346	\$ 39,656	\$ 346
Obligations of states and political subdivisions	59,963	800	38,691	1,786	98,654	2,586
Residential mortgage-backed securities and collateralized mortgage obligations	332,103	5,432	1,992,546	66,790	2,324,649	72,222
Total temporarily impaired securities	<u>\$ 392,066</u>	<u>\$ 6,232</u>	<u>\$2,070,893</u>	<u>\$ 68,922</u>	<u>\$2,462,959</u>	<u>\$ 75,154</u>

These unrealized losses on the Company's debt securities are due to increases in average market interest rates and are not due to the underlying credit of the issuers. The unrealized losses were caused by changes in market interest rates or the widening of market spreads subsequent to the initial purchase of these securities. Management monitors the published credit ratings of the Company's securities for material rating or outlook changes.

As of December 31, 2019, 98% of the Company's obligations of states and political subdivision securities were rated A3/A- or higher by rating agencies. In addition, substantially all of these securities are general obligation issuances. All of the available for sale residential mortgage-backed securities and collateralized mortgage obligations portfolio in an unrealized loss position at December 31, 2019 are issued or guaranteed by government sponsored enterprises. It is expected that these securities will be settled at a price at least equal to the amortized cost of each investment.

Because the decline in fair value of the Company's securities is attributable to changes in interest rates or widening market spreads and not credit quality, and because the Bank does not intend to sell the securities and it is not more likely than not that the Bank will be required to sell these securities before recovery of their amortized cost basis, which may include holding each security until maturity, these investments are not considered other-than-temporarily impaired.

In June 2019, the Company completed a strategic restructuring of a portion of the available for sale debt securities portfolio. This restructuring resulted in the sale of certain securities at a loss of \$7.3 million. This was a tactical effort to reduce interest rate sensitivity for a potentially decreasing interest rate environment. The sales were primarily residential mortgage-backed securities and collateralized mortgage obligations and the purchases were non-callable agency bonds. The transaction resulted in an increased duration of the overall investment securities portfolio and a reduction in the portion of investments subject to prepayment.

The following table presents the contractual maturities of debt securities at December 31, 2019:

(in thousands)	Available For Sale		Held To Maturity	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Amounts maturing in:				
Due within one year	\$ 24,535	\$ 24,556	\$ —	\$ —
Due after one year through five years	55,511	56,266	—	—
Due after five years through ten years	836,024	842,546	15	16
Due after ten years	1,874,178	1,891,314	3,245	4,247
Total securities	<u>\$ 2,790,248</u>	<u>\$ 2,814,682</u>	<u>\$ 3,260</u>	<u>\$ 4,263</u>

The following table presents the gross realized gains and losses on the sale of debt securities available for sale for the years ended December 31, 2019, and 2018:

(in thousands)	2019		2018	
	Gain	Loss	Gain	Loss
Obligations of states and political subdivisions	\$ 17	\$ —	\$ —	\$ —
Residential mortgage-backed securities and collateralized mortgage obligations	144	7,345	14	—
Total gains and losses on sale of debt securities	<u>\$ 161</u>	<u>\$ 7,345</u>	<u>\$ 14</u>	<u>\$ —</u>

The following table presents the gains and losses on equity securities for the years ended December 31, 2019 and 2018:

(in thousands)	2019	2018
Unrealized gain (loss) recognized on equity securities held at the end of the period	\$ 1,660	\$ (1,484)
Net gain recognized on equity securities sold during the period	81,815	—
Total gain (loss) on equity securities, net	<u>\$ 83,475</u>	<u>\$ (1,484)</u>

In June 2019, the Company completed the sale of all shares owned of Class B common stock of Visa Inc. resulting in a one-time gain of \$81.9 million.

The following table presents, as of December 31, 2019, investment securities which were pledged to secure borrowings, public deposits, and repurchase agreements as permitted or required by law:

(in thousands)	Amortized Cost	Fair Value
To state and local governments to secure public deposits	\$ 329,453	\$ 330,412
Other securities pledged principally to secure repurchase agreements	477,244	483,489
Total pledged securities	<u>\$ 806,697</u>	<u>\$ 813,901</u>

Note 4 – Loans and Leases

The following table presents the major types of loans and leases, net of deferred fees and costs, as of December 31, 2019 and 2018:

(in thousands)	December 31, 2019	December 31, 2018
Commercial real estate		
Non-owner occupied term, net	\$ 3,545,566	\$ 3,573,065
Owner occupied term, net	2,496,088	2,480,371
Multifamily, net	3,514,774	3,304,763
Construction & development, net	678,740	736,254
Residential development, net	189,010	196,890
Commercial		
Term, net	2,232,817	2,232,923
Lines of credit & other, net	1,212,393	1,169,525
Leases & equipment finance, net	1,465,489	1,330,155
Residential		
Mortgage, net	4,215,424	3,635,073
Home equity loans & lines, net	1,237,512	1,176,477
Consumer & other, net	407,871	587,170
Total loans and leases, net of deferred fees and costs	<u>\$ 21,195,684</u>	<u>\$ 20,422,666</u>

The loan balances are net of deferred fees and costs of \$71.9 million and \$70.4 million as of December 31, 2019 and 2018, respectively. Net loans also include net discounts on acquired loans of \$30.2 million and \$50.0 million as of December 31, 2019 and 2018, respectively. As of December 31, 2019, loans totaling \$13.8 billion were pledged to secure borrowings and available lines of credit.

The outstanding contractual unpaid principal balance of purchased impaired loans, excluding acquisition accounting adjustments, was \$125.3 million and \$183.7 million at December 31, 2019 and 2018, respectively. The carrying balance of purchased impaired loans was \$89.5 million and \$134.5 million at December 31, 2019 and 2018, respectively.

The following table presents the changes in the accretable yield for purchased impaired loans for the years ended December 31, 2019, and 2018:

(in thousands)	2019	2018
Balance, beginning of period	\$ 56,564	\$ 74,268
Accretion to interest income	(24,797)	(24,095)
Disposals	(12,936)	(10,231)
Reclassifications from non-accretable difference	13,786	16,622
Balance, end of period	<u>\$ 32,617</u>	<u>\$ 56,564</u>

The Bank, through its commercial equipment leasing subsidiary, FinPac, is a direct provider of commercial equipment leasing and financing throughout the United States, originating business through three distinct channels: small and mid-ticket third party originators, vendor finance, and Umpqua Bank Equipment Leasing & Finance. Direct finance leases are included within the lease and equipment finance segment within the loans and leases, net line item. All of these leases typically have terms of three to five years and are considered to be direct financing leases. Interest income recognized on these leases was \$32.8 million and \$35.4 million at December 31, 2019 and 2018, respectively.

Residual values on leases are established at the time equipment is leased based on an estimate of the value of the leased equipment when the Company expects to dispose of the equipment, typically at the termination of the lease. An annual evaluation is also performed each fiscal year by an independent valuation specialist and equipment residuals are confirmed or adjusted in conjunction with such evaluation.

The following table presents the net investment in direct financing leases as of December 31, 2019 and 2018:

(in thousands)	December 31, 2019	December 31, 2018
Minimum lease payments receivable	\$ 435,574	\$ 450,258
Estimated guaranteed and unguaranteed residual values	86,633	79,455
Initial direct costs - net of accumulated amortization	9,400	10,950
Unearned income	(68,177)	(79,777)
Net investment in direct financing leases	<u>\$ 463,430</u>	<u>\$ 460,886</u>

The following table presents the scheduled minimum lease payments receivable as of December 31, 2019:

(in thousands)	Amount
Year	
2020	\$ 148,658
2021	119,863
2022	77,781
2023	41,941
2024	21,679
Thereafter	25,652
Total minimum lease payments receivable	<u>\$ 435,574</u>

Loans and leases sold

In the course of managing the loan and lease portfolio, at certain times, management may decide to sell loans and leases. The following table summarizes the carrying value of loans and leases sold by major loan type during the years ended December 31, 2019 and 2018:

(in thousands)	2019	2018
Commercial real estate		
Non-owner occupied term, net	\$ 40,496	\$ 11,473
Owner occupied term, net	25,454	36,269
Multifamily, net	13,849	4,432
Commercial		
Term, net	38,227	46,194
Lines of credit & other, net	1,619	—
Leases & equipment finance, net	54,499	16,166
Residential		
Mortgage, net	1,849	41,669
Consumer & other, net	65,322	—
Total loans and leases sold, net	<u>\$ 241,315</u>	<u>\$ 156,203</u>

Note 5 – Allowance for Loan and Lease Loss and Credit Quality

The Bank's methodology for assessing the appropriateness of the Allowance for Loan and Lease Loss consists of three key elements: 1) the formula allowance; 2) the specific allowance; and 3) the unallocated allowance. By incorporating these factors into a single allowance requirement analysis, management believes all risk-based activities within the loan and lease portfolios are simultaneously considered.

Formula Allowance

When loans and leases are originated or acquired, they are assigned a risk rating that is reassessed periodically during the term of the loan or lease through the credit review process. The Bank's risk rating methodology assigns risk ratings ranging from 1 to 10, where a higher rating represents higher risk. The 10 risk rating categories are a primary factor in determining an appropriate amount for the formula allowance.

The formula allowance is calculated by applying risk factors that represent the estimate of incurred losses to various segments of pools of outstanding loans and leases. Risk factors are assigned to each portfolio segment based on management's evaluation of the losses inherent within each segment. Segments with greater risk of loss will therefore be assigned a higher risk factor.

Base risk – The portfolio is segmented into loan categories, and these categories are assigned a Base risk factor based on an evaluation of the loss inherent within each segment.

Extra risk – Additional risk factors provide for an additional allocation of ALLL based on the loan and lease risk rating system and loan delinquency, and reflect the increased level of inherent losses associated with more adversely classified loans and leases.

Risk factors may be changed periodically based on management's evaluation of the following factors: loss experience; changes in the level of non-performing loans and leases; regulatory exam results; changes in the level of adversely classified loans and leases; improvement or deterioration in economic conditions; and any other factors deemed relevant. Additionally, FinPac considers additional quantitative and qualitative factors: migration analysis; a static pool analysis of historic recoveries; and forecasting uncertainties. A migration analysis is a technique used to estimate the likelihood that an account will progress through the various delinquency states and ultimately be charged off.

Specific Allowance

Regular credit reviews of the portfolio identify loans that are considered potentially impaired. Potentially impaired loans are referred to the ALLL Committee which reviews and approves designated loans as impaired. A loan is considered impaired when, based on current information and events, management determines that the Bank will probably not be able to collect all amounts due according to the loan contract, including scheduled interest payments. When management identifies a loan as impaired, the Bank measures the impairment using discounted cash flows or estimated note sale price, except when the sole remaining source of the repayment for the loan is the liquidation of the collateral. In these cases, the Bank uses the current fair value of the collateral, less selling costs, instead of discounted cash flows. If management determines that the value of the impaired loan is less than the recorded investment in the loan, the Bank either recognizes an impairment reserve as a specific allowance to be provided for in the allowance for loan and lease losses or charges-off the impaired balance on collateral-dependent loans if it is determined that such amount represents a confirmed loss. Loans determined to be impaired are excluded from the formula allowance so as not to double-count the loss exposure.

The combination of the formula allowance component and the specific allowance component represents the allocated allowance for loan and lease losses. There was no unallocated allowance as of December 31, 2019 and 2018 .

The reserve for unfunded commitments is established to absorb inherent losses associated with the Bank's commitment to lend funds, such as with a letter or line of credit. The adequacy of the ALLL and RUC are monitored on a regular basis and are based on management's evaluation of numerous factors. These factors include the quality of the current loan portfolio; the trend in the loan portfolio's risk ratings; current economic conditions; loan concentrations; loan growth rates; past-due and non-performing trends; evaluation of specific loss estimates for all significant problem loans; historical charge-off and recovery experience; and other factors deemed relevant.

There have been no significant changes to the Bank's ALLL methodology or policies in the periods presented.

Activity in the Allowance for Loan and Lease Losses

The following tables summarize activity related to the allowance for loan and lease losses by loan and lease portfolio segment for the years ended December 31, 2019 and 2018:

(in thousands)	2019				
	Commercial Real Estate	Commercial	Residential	Consumer & Other	Total
Balance, beginning of period	\$ 47,904	\$ 63,957	\$ 22,034	\$ 10,976	\$ 144,871
Charge-offs	(5,849)	(62,098)	(862)	(6,896)	(75,705)
Recoveries	885	12,310	476	2,277	15,948
Provision	7,907	59,651	3,066	1,891	72,515
Balance, end of period	<u>\$ 50,847</u>	<u>\$ 73,820</u>	<u>\$ 24,714</u>	<u>\$ 8,248</u>	<u>\$ 157,629</u>

(in thousands)	2018				
	Commercial Real Estate	Commercial	Residential	Consumer & Other	Total
Balance, beginning of period	\$ 45,765	\$ 63,305	\$ 19,360	\$ 12,178	\$ 140,608
Charge-offs	(2,950)	(55,902)	(877)	(6,321)	(66,050)
Recoveries	1,184	10,421	570	2,233	14,408
Provision	3,905	46,133	2,981	2,886	55,905
Balance, end of period	<u>\$ 47,904</u>	<u>\$ 63,957</u>	<u>\$ 22,034</u>	<u>\$ 10,976</u>	<u>\$ 144,871</u>

The following tables present the allowance and recorded investment in loans and leases by portfolio segment and balances individually or collectively evaluated for impairment as of December 31, 2019 and 2018:

(in thousands)	December 31, 2019				
	Commercial Real Estate	Commercial	Residential	Consumer & Other	Total
Allowance for loans and leases:					
Collectively evaluated for impairment	\$ 49,458	\$ 73,670	\$ 24,431	\$ 8,240	\$ 155,799
Individually evaluated for impairment	155	—	—	—	155
Loans acquired with deteriorated credit quality	1,234	150	283	8	1,675
Total allowance for loans and leases	<u>\$ 50,847</u>	<u>\$ 73,820</u>	<u>\$ 24,714</u>	<u>\$ 8,248</u>	<u>\$ 157,629</u>
Loans and leases:					
Collectively evaluated for impairment	\$10,342,342	\$ 4,904,136	\$ 5,435,692	\$ 407,565	\$21,089,735
Individually evaluated for impairment	10,466	5,982	—	—	16,448
Loans acquired with deteriorated credit quality	71,370	581	17,244	306	89,501
Total loans and leases, net	<u>\$10,424,178</u>	<u>\$ 4,910,699</u>	<u>\$ 5,452,936</u>	<u>\$ 407,871</u>	<u>\$21,195,684</u>

(in thousands)	December 31, 2018				
	Commercial Real Estate	Commercial	Residential	Consumer & Other	Total
Allowance for loans and leases:					
Collectively evaluated for impairment	\$ 46,014	\$ 63,707	\$ 21,669	\$ 10,934	\$ 142,324
Individually evaluated for impairment	178	2	—	—	180
Loans acquired with deteriorated credit quality	1,712	248	365	42	2,367
Total allowance for loans and leases	<u>\$ 47,904</u>	<u>\$ 63,957</u>	<u>\$ 22,034</u>	<u>\$ 10,976</u>	<u>\$ 144,871</u>
Loans and leases:					
Collectively evaluated for impairment	\$10,162,148	\$ 4,712,327	\$ 4,784,694	\$ 586,768	\$20,245,937
Individually evaluated for impairment	24,916	17,341	—	—	42,257
Loans acquired with deteriorated credit quality	104,279	2,935	26,856	402	134,472
Total loans and leases, net	<u>\$10,291,343</u>	<u>\$ 4,732,603</u>	<u>\$ 4,811,550</u>	<u>\$ 587,170</u>	<u>\$20,422,666</u>

Summary of Reserve for Unfunded Commitments Activity

The following tables present a summary of activity in the RUC and unfunded commitments for the years ended December 31, 2019 and 2018:

(in thousands)	2019	2018
Balance, beginning of period	\$ 4,523	\$ 3,963
Net charge to other expense	583	560
Balance, end of period	<u>\$ 5,106</u>	<u>\$ 4,523</u>

(in thousands)	Total
Unfunded loan and lease commitments:	
December 31, 2019	\$ 5,726,854
December 31, 2018	\$ 5,475,484

Asset Quality and Non-Performing Loans and Leases

The Bank manages asset quality and control credit risk through diversification of the loan and lease portfolio and the application of policies designed to promote sound underwriting and loan and lease monitoring practices. The Bank's Credit Quality Administration department is charged with monitoring asset quality, establishing credit policies and procedures and enforcing the consistent application of these policies and procedures across the Bank. Reviews of non-performing, past due loans and leases and larger credits, designed to identify potential charges to the allowance for loan and lease losses, and to determine the adequacy of the allowance, are conducted on an ongoing basis. These reviews consider such factors as the financial strength of borrowers, the value of the applicable collateral, loan and lease loss experience, estimated loan and lease losses, growth in the loan and lease portfolio, prevailing economic conditions and other factors.

Non-Accrual Loans and Leases and Loans and Leases Past Due

The following tables summarize non-accrual loans and leases and loans and leases past due by loan and lease class as of December 31, 2019 and 2018:

(in thousands)	December 31, 2019						
	Greater than 30 to 59 Days Past Due	60 to 89 Days Past Due	90+ Days and Accruing	Total Past Due	Non- Accrual	Current & Other ⁽¹⁾	Total Loans and Leases
Commercial real estate							
Non-owner occupied term, net	\$ —	\$ —	\$ 121	\$ 121	\$ 2,920	\$ 3,542,525	\$ 3,545,566
Owner occupied term, net	975	470	1	1,446	4,600	2,490,042	2,496,088
Multifamily, net	—	—	—	—	—	3,514,774	3,514,774
Construction & development, net	—	—	—	—	—	678,740	678,740
Residential development, net	—	—	—	—	—	189,010	189,010
Commercial							
Term, net	136	381	—	517	3,458	2,228,842	2,232,817
Lines of credit & other, net	3,548	376	36	3,960	767	1,207,666	1,212,393
Leases & equipment finance, net	10,685	11,176	3,086	24,947	14,499	1,426,043	1,465,489
Residential							
Mortgage, net ⁽²⁾	—	8,104	36,642	44,746	—	4,170,678	4,215,424
Home equity loans & lines, net	2,173	867	1,804	4,844	—	1,232,668	1,237,512
Consumer & other, net	2,043	948	615	3,606	—	404,265	407,871
Total, net of deferred fees and costs	<u>\$ 19,560</u>	<u>\$ 22,322</u>	<u>\$ 42,305</u>	<u>\$ 84,187</u>	<u>\$ 26,244</u>	<u>\$21,085,253</u>	<u>\$21,195,684</u>

⁽¹⁾ Other includes purchased credit impaired loans of \$89.5 million.

⁽²⁾ Includes government guaranteed GNMA mortgage loans that the Bank has the right but not the obligation to repurchase that are past due 90 days or more, totaling \$4.3 million at December 31, 2019.

December 31, 2018

(in thousands)	Greater than 30 to 59 Days Past Due	60 to 89 Days Past Due	90+ Days and Accruing	Total Past Due	Non- Accrual	Current & Other ⁽¹⁾	Total Loans and Leases
Commercial real estate							
Non-owner occupied term, net	\$ 1,192	\$ 1,042	\$ —	\$ 2,234	\$ 10,033	\$ 3,560,798	\$ 3,573,065
Owner occupied term, net	3,920	1,372	1	5,293	8,682	2,466,396	2,480,371
Multifamily, net	107	—	—	107	4,298	3,300,358	3,304,763
Construction & development, net	—	—	—	—	—	736,254	736,254
Residential development, net	—	—	—	—	—	196,890	196,890
Commercial							
Term, net	992	117	—	1,109	11,772	2,220,042	2,232,923
Lines of credit & other, net	1,286	143	83	1,512	2,275	1,165,738	1,169,525
Leases & equipment finance, net	8,571	8,754	3,016	20,341	13,763	1,296,051	1,330,155
Residential							
Mortgage, net ⁽²⁾	—	4,900	39,218	44,118	—	3,590,955	3,635,073
Home equity loans & lines, net	987	368	2,492	3,847	—	1,172,630	1,176,477
Consumer & other, net	2,711	911	551	4,173	—	582,997	587,170
Total, net of deferred fees and costs	<u>\$ 19,766</u>	<u>\$ 17,607</u>	<u>\$ 45,361</u>	<u>\$ 82,734</u>	<u>\$ 50,823</u>	<u>\$20,289,109</u>	<u>\$20,422,666</u>

⁽¹⁾ Other includes purchased credit impaired loans of \$134.5 million.

⁽²⁾ Includes government guaranteed GNMA mortgage loans that the Bank has the right but not the obligation to repurchase that are past due 90 days or more, totaling \$8.9 million at December 31, 2018.

Impaired Loans and Leases

Loans with no related allowance reported generally represent non-accrual loans, which are also considered impaired loans. The Bank recognizes the charge-off on impaired loans in the period it arises for collateral dependent loans. Therefore, the non-accrual loans as of December 31, 2019 have already been written-down to their estimated net realizable value and are expected to be resolved with no additional material loss, absent further decline in net realizable value. The valuation allowance on impaired loans primarily represents the impairment reserves on performing restructured loans, and is measured by comparing the present value of expected future cash flows on the restructured loans discounted at the interest rate of the original loan agreement to the loan's carrying value.

The following tables summarize impaired loans and leases by loan class as of December 31, 2019 and 2018:

(in thousands)	December 31, 2019			
	Unpaid Principal Balance	Recorded Investment		Related Allowance
		Without Allowance	With Allowance	
Commercial real estate				
Non-owner occupied term, net	\$ 6,556	\$ 2,920	\$ 3,646	\$ 84
Owner occupied term, net	5,004	3,080	820	71
Commercial				
Term, net	5,428	3,510	—	—
Lines of credit & other, net	896	767	—	—
Leases & equipment finance, net	1,705	1,705	—	—
Total, net of deferred fees and costs	\$ 19,589	\$ 11,982	\$ 4,466	\$ 155

(in thousands)	December 31, 2018			
	Unpaid Principal Balance	Recorded Investment		Related Allowance
		Without Allowance	With Allowance	
Commercial real estate				
Non-owner occupied term, net	\$ 14,877	\$ 9,847	\$ 3,715	\$ 90
Owner occupied term, net	8,188	6,178	878	88
Multifamily, net	4,493	4,298	—	—
Commercial				
Term, net	22,770	11,089	3,770	2
Lines of credit & other, net	7,145	2,065	—	—
Leases & equipment finance, net	417	417	—	—
Total, net of deferred fees and costs	\$ 57,890	\$ 33,894	\$ 8,363	\$ 180

The following table summarizes the average recorded investment and interest income recognized on impaired loans and leases by loan class for the years ended December 31, 2019 and 2018:

(in thousands)	2019		2018	
	Average Recorded Investment	Interest Income Recognized	Average Recorded Investment	Interest Income Recognized
Commercial real estate				
Non-owner occupied term, net	\$ 11,524	\$ 132	\$ 13,950	\$ 270
Owner occupied term, net	5,650	37	9,816	40
Multifamily, net	1,385	—	4,036	60
Commercial				
Term, net	8,274	186	17,154	250
Lines of credit & other, net	1,226	—	3,347	—
Leases & equipment finance, net	1,867	84	443	—
Total, net of deferred fees and costs	\$ 29,926	\$ 439	\$ 48,746	\$ 620

The impaired loans for which these interest income amounts were recognized primarily relate to accruing restructured loans.

Credit Quality Indicators

As previously noted, the Bank's risk rating methodology assigns risk ratings ranging from 1 to 10, where a higher rating represents higher risk. The Bank differentiates its lending portfolios into homogeneous loans and leases and non-homogeneous loans and leases. Homogeneous loans and leases are not risk rated until they are greater than 30 days past due, and risk rating is based on the past due status of the loan or lease. The 10 risk rating categories can be generally described by the following groupings for loans and leases:

Minimal Risk—A minimal risk loan or lease, risk rated 1, is to a borrower of the highest quality. The borrower has an unquestioned ability to produce consistent profits and service all obligations and can absorb severe market disturbances with little or no difficulty.

Low Risk—A low risk loan or lease, risk rated 2, is similar in characteristics to a minimal risk loan. Margins may be smaller or protective elements may be subject to greater fluctuation. The borrower will have a strong demonstrated ability to produce profits, provide ample debt service coverage and to absorb market disturbances.

Modest Risk—A modest risk loan or lease, risk rated 3, is a desirable loan or lease with excellent sources of repayment and no currently identifiable risk associated with collection. The borrower exhibits a very strong capacity to repay the credit in accordance with the repayment agreement. The borrower may be susceptible to economic cycles, but will have reserves to weather these cycles.

Average Risk—An average risk loan or lease, risk rated 4, is an attractive loan or lease with sound sources of repayment and no material collection or repayment weakness evident. The borrower has an acceptable capacity to pay in accordance with the agreement. The borrower is susceptible to economic cycles and more efficient competition, but should have modest reserves sufficient to survive all but the most severe downturns or major setbacks.

Acceptable Risk—An acceptable risk loan or lease, risk rated 5, is a loan or lease with lower than average, but still acceptable credit risk. These borrowers may have higher leverage, less certain but viable repayment sources, have limited financial reserves and may possess weaknesses that can be adequately mitigated through collateral, structural or credit enhancement. The borrower is susceptible to economic cycles and is less resilient to negative market forces or financial events. Reserves may be insufficient to survive a modest downturn.

Watch—A watch loan or lease, risk rated 6, is still pass-rated, but represents the lowest level of acceptable risk due to an emerging risk element or declining performance trend. Watch ratings are expected to be temporary, with issues resolved or manifested to the extent that a higher or lower rating would be appropriate. The borrower should have a plausible plan, with reasonable certainty of success, to correct the problems in a short period of time.

Special Mention—A special mention loan or lease, risk rated 7, has potential weaknesses that deserve management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the asset or the institution's credit position at some future date. They contain unfavorable characteristics and are generally undesirable. Loans and leases in this category are currently protected but are potentially weak and constitute an undue and unwarranted credit risk, but not to the point of a substandard classification. A special mention loan or lease has potential weaknesses, which if not checked or corrected, weaken the asset or inadequately protect the Bank's position at some future date. For commercial and commercial real estate homogeneous loans and leases to be classified as special mention, risk rated 7, the loan or lease is greater than 30 to 59 days past due from the required payment date at month-end. Residential and consumer and other homogeneous loans are risk rated 7, when the loan is greater than 30 to 89 days past due from the required payment date at month-end.

Substandard—A substandard asset, risk rated 8, is inadequately protected by the current worth and paying capacity of the obligor or of the collateral pledged, if any. Assets so classified must have a well-defined weakness or weaknesses that jeopardize the liquidation of the debt. They are characterized by the distinct possibility that the Bank will sustain some loss if the deficiencies are not corrected. Loss potential, while existing in the aggregate amount of substandard assets, does not have to exist in individual assets classified substandard. Loans and leases are classified as substandard when they have unsatisfactory characteristics causing unacceptable levels of risk. A substandard loan or lease normally has one or more well-defined weaknesses that could jeopardize repayment of the debt. The likely need to liquidate assets to correct the problem, rather than repayment from successful operations is the key distinction between special mention and substandard. Commercial and commercial real estate homogeneous loans and leases are classified as a substandard loan or lease, risk rated 8, when the loan or lease is 60 to 89 days past due from the required payment date at month-end. Residential and consumer and other homogeneous loans are classified as a substandard loan, risk rated 8, when an open-end loan is 90 to 180 days past due from the required payment date at month-end or when a closed-end loan 90 to 120 days is past due from the required payment date at month-end.

Doubtful—Loans or leases classified as doubtful, risk rated 9, have all the weaknesses inherent in one classified substandard with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently existing facts, conditions and values, highly questionable and improbable. The possibility of loss is extremely high, but because of certain important and reasonably specific pending factors, which may work towards strengthening of the asset, classification as a loss (and immediate charge-off) is deferred until more exact status may be determined. Pending factors include proposed merger, acquisition, liquidation procedures, capital injection, and perfection of liens on additional collateral and refinancing plans. In certain circumstances, a doubtful rating will be temporary, while the Bank is awaiting an updated collateral valuation. In these cases, once the collateral is valued and appropriate margin applied, the remaining un-collateralized portion will be charged-off. The remaining balance, properly margined, may then be upgraded to substandard, however must remain on non-accrual. Commercial and commercial real estate homogeneous doubtful loans or leases, risk rated 9, are 90 to 179 days past due from the required payment date at month-end.

Loss—Loans or leases classified as loss, risk rated 10, are considered un-collectible and of such little value that the continuance as an active Bank asset is not warranted. This rating does not mean that the loan or lease has no recovery or salvage value, but rather that the loan or lease should be charged-off now, even though partial or full recovery may be possible in the future. For a commercial or commercial real estate homogeneous loss loan or lease to be risk rated 10, the loan or lease is 180 days and more past due from the required payment date. These loans are generally charged-off in the month in which the 180 day time period elapses. Residential, consumer and other homogeneous loans are risk rated 10, when a loan becomes past due 120 cumulative days from the contractual due date. Residential and consumer loans secured by real estate are generally charged down to net realizable value in the month in which the loan becomes 180 days past due. All other residential, consumer, and other homogeneous loans are generally charged-off in the month in which the 120 day period elapses.

Impaired—Loans are classified as impaired when, based on current information and events, it is probable that the Bank will be unable to collect the scheduled payments of principal and interest when due, in accordance with the terms of the original loan agreement, without unreasonable delay. This generally includes all loans classified as non-accrual and troubled debt restructurings. Impaired loans are risk rated for internal and regulatory rating purposes, but presented separately for clarification.

The following tables summarize the internal risk rating by loan and lease class for the loan and lease portfolio, including purchased credit impaired loans, as of December 31, 2019 and 2018 :

(in thousands)	December 31, 2019						
	Pass/Watch	Special Mention	Substandard	Doubtful	Loss	Impaired ⁽¹⁾	Total
Commercial real estate							
Non-owner occupied term, net	\$ 3,495,686	\$ 28,838	\$ 14,355	\$ 121	\$ —	\$ 6,566	\$ 3,545,566
Owner occupied term, net	2,422,734	38,834	30,461	159	—	3,900	2,496,088
Multifamily, net	3,503,483	10,693	598	—	—	—	3,514,774
Construction & development, net	661,458	17,282	—	—	—	—	678,740
Residential development, net	189,010	—	—	—	—	—	189,010
Commercial							
Term, net	2,172,704	7,626	48,973	—	4	3,510	2,232,817
Lines of credit & other, net	1,171,892	17,422	22,278	34	—	767	1,212,393
Leases & equipment finance, net	1,424,339	10,685	11,176	15,305	2,279	1,705	1,465,489
Residential							
Mortgage, net ⁽²⁾	4,169,363	8,298	36,588	—	1,175	—	4,215,424
Home equity loans & lines, net	1,232,518	3,126	1,218	—	650	—	1,237,512
Consumer & other, net	404,248	2,990	615	—	18	—	407,871
Total, net of deferred fees and costs	<u>\$20,847,435</u>	<u>\$ 145,794</u>	<u>\$ 166,262</u>	<u>\$ 15,619</u>	<u>\$ 4,126</u>	<u>\$ 16,448</u>	<u>\$ 21,195,684</u>

⁽¹⁾ The percentage of impaired loans classified as pass/watch, special mention and substandard was 5.0%, 25.0% and 70.0% respectively, as of December 31, 2019.

⁽²⁾ Includes government guaranteed GNMA mortgage loans that the Bank has the right but not the obligation to repurchase that are past due 90 days or more, totaling \$4.3 million at December 31, 2019, which is included in the substandard category.

December 31, 2018

(in thousands)	Pass/Watch	Special Mention	Substandard	Doubtful	Loss	Impaired ⁽¹⁾	Total
Commercial real estate							
Non-owner occupied term, net	\$ 3,497,801	\$ 38,346	\$ 23,234	\$ —	\$ 122	\$ 13,562	\$ 3,573,065
Owner occupied term, net	2,422,351	28,447	22,136	54	327	7,056	2,480,371
Multifamily, net	3,284,445	11,481	4,539	—	—	4,298	3,304,763
Construction & development, net	734,318	—	1,936	—	—	—	736,254
Residential development, net	196,890	—	—	—	—	—	196,890
Commercial							
Term, net	2,196,753	15,519	5,670	53	69	14,859	2,232,923
Lines of credit & other, net	1,103,677	42,831	20,639	313	—	2,065	1,169,525
Leases & equipment finance, net	1,296,235	8,571	8,754	14,247	1,931	417	1,330,155
Residential							
Mortgage, net ⁽²⁾	3,588,976	5,169	38,766	—	2,162	—	3,635,073
Home equity loans & lines, net	1,172,040	1,878	1,418	—	1,141	—	1,176,477
Consumer & other, net	582,962	3,622	559	—	27	—	587,170
Total, net of deferred fees and costs	<u>\$20,076,448</u>	<u>\$ 155,864</u>	<u>\$ 127,651</u>	<u>\$ 14,667</u>	<u>\$ 5,779</u>	<u>\$ 42,257</u>	<u>\$ 20,422,666</u>

⁽¹⁾ The percentage of impaired loans classified as pass/watch, special mention and substandard was 3.2%, 8.8% and 88.0%, respectively, as of December 31, 2018.

⁽²⁾ Includes government guaranteed GNMA mortgage loans that the Bank has the right but not the obligation to repurchase that are past due 90 days or more, totaling \$8.9 million at December 31, 2018, which is included in the substandard category.

Troubled Debt Restructurings

At December 31, 2019 and 2018, impaired loans of \$18.6 million and \$13.9 million, respectively, were classified as accruing restructured loans. The restructurings were granted in response to borrower financial difficulty, and generally provide for a temporary modification of loan repayment terms. In order for a newly restructured loan to be considered for accrual status, the loan's collateral coverage generally will be greater than or equal to 100% of the loan balance, the loan is current on payments, and the borrower must either prefund an interest reserve or demonstrate the ability to make payments from a verified source of cash flow. Impaired restructured loans carry a specific allowance and the allowance on impaired restructured loans is calculated consistently across the portfolios.

There were \$98,000 and \$338,000 of available commitments for troubled debt restructurings outstanding as of December 31, 2019 and 2018, respectively.

The following tables present troubled debt restructurings by accrual versus non-accrual status and by loan class as of December 31, 2019 and 2018:

(in thousands)	December 31, 2019		
	Accrual Status	Non-Accrual Status	Total Modifications
Commercial real estate, net	\$ 3,968	\$ —	\$ 3,968
Commercial, net	4,105	—	4,105
Residential, net	10,460	—	10,460
Consumer & other, net	43	—	43
Total, net of deferred fees and costs	<u>\$ 18,576</u>	<u>\$ —</u>	<u>\$ 18,576</u>

(in thousands)	December 31, 2018		
	Accrual Status	Non-Accrual Status	Total Modifications
Commercial real estate, net	\$ 4,524	\$ 9,290	\$ 13,814
Commercial, net	3,696	8,736	12,432
Residential, net	5,704	—	5,704
Total, net of deferred fees and costs	<u>\$ 13,924</u>	<u>\$ 18,026</u>	<u>\$ 31,950</u>

The Bank's policy is that loans placed on non-accrual will typically remain on non-accrual status until all principal and interest payments are brought current and the prospect for future payment in accordance with the loan agreement appears relatively certain. The Bank's policy generally refers to six months of payment performance as sufficient to warrant a return to accrual status.

The following tables present newly restructured loans that occurred during the years ended December 31, 2019 and 2018:

(in thousands)	2019	2018
Commercial real estate, net	\$ 118	\$ —
Commercial, net	1,842	—
Residential, net	7,549	106
Consumer & other, net	43	—
Total, net of deferred fees and costs	<u>\$ 9,552</u>	<u>\$ 106</u>

For the periods presented in the table above, the outstanding recorded investment was the same pre and post modification and all modifications were combination modifications. There were \$329,000 financing receivables modified as troubled debt restructurings within the previous 12 months for which there was a payment default during the year ended December 31, 2019. There were no in financing receivables modified as troubled debt restructurings within the previous 12 months for which there was a payment default during the year ended December 31, 2018.

Note 6—Premises and Equipment

The following table presents the major components of premises and equipment at December 31, 2019 and 2018:

(in thousands)	December 31, 2019	December 31, 2018	Estimated useful life
Land	\$ 34,161	\$ 34,388	
Buildings and improvements	204,639	209,948	7 - 39 years
Furniture, fixtures and equipment	136,403	141,579	4 - 20 years
Software	104,802	97,897	3 - 7 years
Construction in progress and other	16,432	21,496	
Total premises and equipment	496,437	505,308	
Less: Accumulated depreciation and amortization	(294,977)	(277,885)	
Premises and equipment, net	<u>\$ 201,460</u>	<u>\$ 227,423</u>	

Depreciation expense totaled \$37.3 million, \$44.4 million and \$50.1 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Note 7 – Leases

The Bank leases store locations, corporate office space, and equipment under non-cancelable leases. Leases with an initial term of 12 months or less are not recorded on the balance sheet.

The leases contain various provisions for increases in rental rates, based either on changes in the published Consumer Price Index or a predetermined escalation schedule. Substantially all of the leases provide the Company with one or more options to renew, with renewal terms that can extend the lease term from one to ten years or more. The exercise of lease renewal options is at management's sole discretion. The depreciable life of assets and leasehold improvements are limited by the expected lease term, unless there is a transfer of title or purchase option reasonably certain of exercise. The Company's lease agreements do not contain any material residual value guarantees or material restrictive covenants.

The Company rents or subleases certain real estate to third parties. The Company's sublease portfolio consists of operating leases of mainly former store locations or excess space in store or corporate facilities.

The following table presents the balance sheet information related to leases as of December 31, 2019:

(in thousands)	December 31, 2019
Leases	
Operating lease right-of-use assets	\$ 110,718
Operating lease liabilities	\$ 119,429

The following table presents the components of lease expense for the year ended December 31, 2019:

(in thousands)	2019
Lease Costs	
Operating lease costs	\$ 32,358
Short-term lease costs	820
Variable lease costs	8
Sublease income	(2,765)
Net lease costs	<u>\$ 30,421</u>

The following table presents the supplemental cash flow information related to leases for the year ended December 31, 2019:

(in thousands)

Cash Flows	2019
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	\$ 33,004
Right of use assets obtained in exchange for new operating lease liabilities	\$ 27,878

The following table presents the maturities of lease liabilities as of December 31, 2019:

(in thousands)

Year	Operating Leases
2020	\$ 31,029
2021	26,277
2022	20,832
2023	16,234
2024	11,914
Thereafter	27,186
Total lease payments	133,472
Less: imputed interest	(14,043)
Present value of lease liabilities	<u>\$ 119,429</u>

The following table presents the operating lease term and discount rate as of December 31, 2019:

	December 31, 2019
Weighted-average remaining lease term (years)	6.4
Weighted-average discount rate	3.45%

The following disclosures were required prior to the Company's adoption of ASC 842. Rent expense for the years ended December 31, 2018 and 2017 was \$37.9 million and \$38.4 million, respectively, and was partially offset by rent income of \$2.6 million and \$2.2 million, respectively.

The following table sets forth, as of December 31, 2018, the future minimum lease payments under non-cancelable leases and future minimum income receivable under non-cancelable operating subleases:

(in thousands)

Year	Lease Payments	Sublease Income
2019	\$ 33,948	\$ 2,851
2020	29,535	2,711
2021	23,898	2,333
2022	18,250	1,718
2023	14,100	1,337
Thereafter	37,963	3,477
Total	<u>\$ 157,694</u>	<u>\$ 14,427</u>

Note 8—Goodwill and Other Intangible Assets

Goodwill totaled \$1.8 billion, which includes \$113.1 million in accumulated impairment for the years ended December 31, 2019 and 2018. Goodwill represents the excess of the total acquisition price paid over the fair value of the assets acquired, net of the fair value of liabilities assumed. There has been no change to goodwill in any of the periods presented. Goodwill is required to be allocated to reporting units, which the Company has determined to be the same as its operating segments.

As of December 31, 2019 and 2018, goodwill was allocated to the reporting units as follows:

(in thousands)	Goodwill			
	Wholesale Bank	Wealth Management	Retail Bank	Total
Allocated goodwill, December 31, 2019 and 2018	\$ 1,033,744	\$ 2,715	\$ 751,192	\$ 1,787,651

The Company conducted its annual evaluation of goodwill for impairment as of October 31, 2019, by assessing qualitative factors to determine whether the existence of events and circumstances indicated that it is more likely than not that the indefinite-lived intangible asset is impaired. Based on that assessment, the Company determined that the Retail Bank and Wealth Management reporting units had no factors indicating any additional impairment and no further testing was determined to be necessary. For the Wholesale Bank reporting unit, the qualitative testing showed that there were negative indicators that would require a quantitative assessment of goodwill due to the decline in interest rates and slower growth rates than previously forecast.

The Company performed a quantitative analysis of the Wholesale bank reporting unit, by comparing the fair value of the reporting unit with its carrying amount. The Company estimated the fair value of its Wholesale Bank reporting unit using an income approach. The income approach estimates the fair value of the reporting unit by discounting management's projections of the reporting unit's cash flows, including a terminal value to estimate the fair value of cash flows beyond the final year of projected results, discounted using an estimated cost of capital discount rate.

Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions, estimates, and market factors. Estimating the fair value of individual reporting units requires management to make assumptions and estimates regarding the Company's future plans, as well as industry, economic, and regulatory conditions. These assumptions and estimates include estimated future annual net cash flows, income tax rates, discount rates, growth rates, and other market factors. If current expectations of future growth rates are not met, if market factors outside of the Company's control, such as discount rates and market multiples, change, or if management's expectations or plans otherwise change, then goodwill allocated to one or more of the Company's reporting units might become impaired in the future.

Upon completing the quantitative impairment analysis, the Company determined that no impairment was indicated as the estimated fair value was in excess of the carrying value of the Wholesale Bank reporting unit. As such, there was no goodwill impairment loss recorded during the year ended December 31, 2019. There were also no goodwill impairment losses for the years ended December 31, 2018 and 2017.

The following table summarizes the changes in the Company's other intangible assets for the years ended December 31, 2017, 2018 and 2019.

(in thousands)	Other Intangible Assets		
	Gross	Accumulated Amortization	Net
Balance, December 31, 2016	\$ 113,471	\$ (76,585)	\$ 36,886
Amortization	—	(6,756)	(6,756)
Balance, December 31, 2017	113,471	(83,341)	30,130
Amortization	—	(6,166)	(6,166)
Balance, December 31, 2018	113,471	(89,507)	23,964
Amortization	—	(5,618)	(5,618)
Balance, December 31, 2019	\$ 113,471	\$ (95,125)	\$ 18,346

Core deposit intangible asset values were determined by an analysis of the cost differential between the core deposits inclusive of estimated servicing costs and alternative funding sources for core deposits acquired through acquisitions. The core deposit intangible assets recorded are amortized on an accelerated basis over a period of approximately 10 years. No impairment losses separate from the scheduled amortization have been recognized in the periods presented.

The table below presents the forecasted amortization expense for intangible assets at December 31, 2019:

(in thousands)

Year	Expected Amortization
2020	\$ 4,986
2021	4,520
2022	4,095
2023	3,686
2024	1,059
Thereafter	—
Total intangible assets	<u>\$ 18,346</u>

Note 9 – Residential Mortgage Servicing Rights

The Company measures its mortgage servicing rights at fair value with changes in fair value reported in residential mortgage banking revenue in the *Consolidated Statements of Income*. The following table presents the changes in the Company's residential mortgage servicing rights for the years ended December 31, 2019, 2018 and 2017:

(in thousands)

	2019	2018	2017
Balance, beginning of period	\$ 169,025	\$ 153,151	\$ 142,973
Additions for new MSR capitalized	25,169	29,069	33,445
Sale of MSR assets	(34,401)	—	—
Changes in fair value:			
Changes due to collection/realization of expected cash flows over time	(25,408)	(24,533)	(23,059)
Changes due to valuation inputs or assumptions ⁽¹⁾	(19,375)	11,338	(208)
Balance, end of period	<u>\$ 115,010</u>	<u>\$ 169,025</u>	<u>\$ 153,151</u>

⁽¹⁾ The change in valuation inputs and assumptions principally reflect changes in discount rates and prepayment speeds, which are primarily affected by changes in interest rates.

Information related to the serviced loan portfolio as of December 31, 2019, 2018 and 2017 is as follows:

(dollars in thousands)

	December 31, 2019	December 31, 2018	December 31, 2017
Balance of loans serviced for others	\$ 12,276,943	\$ 15,978,885	\$ 15,336,597
MSR as a percentage of serviced loans	0.94%	1.06%	1.00%

In October 2019, Umpqua closed on the sale of \$34.4 million in residential mortgage servicing rights for \$3.4 billion of residential mortgage loans serviced for others. The Company continues to analyze the portfolio and anticipates another sale in 2020 in an effort to improve the overall profitability of the business and reduce potential future volatility from future rate changes.

The amount of contractually specified servicing fees, late fees and ancillary fees earned, recorded in residential mortgage banking revenue on the *Consolidated Statements of Income*, was \$42.2 million, \$42.8 million, and \$39.9 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Key assumptions used in measuring the fair value of MSR as of December 31, 2019, 2018 and 2017 were as follows:

	December 31, 2019	December 31, 2018	December 31, 2017
Constant prepayment rate	13.33%	12.95%	12.27%
Discount rate	9.75%	9.70%	9.70%
Weighted average life (years)	6.0	6.2	6.3

A sensitivity analysis of the current fair value to changes in discount and prepayment speed assumptions as of December 31, 2019 and 2018 is as follows:

	December 31, 2019	December 31, 2018
Constant prepayment rate		
Effect on fair value of a 10% adverse change	\$ (5,410)	\$ (7,104)
Effect on fair value of a 20% adverse change	\$ (10,403)	\$ (13,651)
Discount rate		
Effect on fair value of a 100 basis point adverse change	\$ (4,366)	\$ (6,438)
Effect on fair value of a 200 basis point adverse change	\$ (8,418)	\$ (12,398)

The sensitivity analysis presents the hypothetical effect on fair value of the MSR, due to the change in assumptions. The effect of such hypothetical change in assumptions generally cannot be extrapolated because the relationship of the change in an assumption to the change in fair value is not linear. Additionally, in the analysis, the impact of an adverse change in one assumption is calculated independent of any impact on other assumptions. In reality, changes in one assumption may change another assumption.

Note 10 - Other Assets

Other assets consisted of the following at December 31, 2019 and 2018:

(in thousands)	December 31, 2019	December 31, 2018
Derivative assets	\$ 150,574	\$ 49,484
Low-income housing tax credit investments	88,215	39,146
Accrued interest receivable	70,210	70,530
Prepaid expenses	31,456	26,403
Income taxes receivable	16,274	2,629
Investment in unconsolidated trust subsidiaries	13,962	13,962
Insurance premium receivable	10,415	10,336
Commercial servicing asset	5,133	4,364
Other real estate owned	3,295	10,958
Other equity investment	—	6,400
Other	44,667	34,164
Total other assets	<u>\$ 434,201</u>	<u>\$ 268,376</u>

The Company invests in limited partnerships that operate qualified affordable housing projects to receive tax benefits in the form of tax deductions from operating losses and tax credits. The Company accounts for the investments using the proportional amortization method; amortization of the investment in qualified affordable housing projects is recorded in the provision for income taxes together with the tax credits and benefits received. As of December 31, 2019, 2018 and 2017, the Company recognized \$3.6 million, \$2.8 million, and \$3.1 million, respectively, of proportional amortization as a component of income tax expense and recognized \$4.3 million, \$3.3 million, and \$3.0 million, respectively, in affordable housing tax credits and other tax benefits during the years. The Company's remaining capital commitments to these partnerships at December 31, 2019 and 2018 were approximately \$60.4 million and \$20.2 million, respectively, and are included in other liabilities on the consolidated balance sheets.

Other real estate owned represents property acquired through foreclosure or other proceedings and is carried at the lower of cost or fair value, less costs to sell. The Bank's recorded investment in consumer mortgage loans collateralized by residential real estate property in process of foreclosure was \$7.3 million and \$8.2 million as of December 31, 2019 and 2018, respectively.

Note 11 – Income Taxes

The following table presents the components of income tax provision included in the *Consolidated Statements of Income* for the years ended December 31, 2019, 2018 and 2017:

(in thousands)	Current	Deferred	Total
Year ended December 31, 2019:			
Federal	\$ 90,227	\$ (5,123)	\$ 85,104
State	28,125	1,579	29,704
Total provision for income taxes	<u>\$ 118,352</u>	<u>\$ (3,544)</u>	<u>\$ 114,808</u>
Year ended December 31, 2018:			
Federal	\$ 68,651	\$ 11,655	\$ 80,306
State	18,960	7,157	26,117
Total provision for income taxes	<u>\$ 87,611</u>	<u>\$ 18,812</u>	<u>\$ 106,423</u>
Year ended December 31, 2017:			
Federal	\$ 19,287	\$ 66,559	\$ 85,846
State	10,015	10,869	20,884
Total provision for income taxes	<u>\$ 29,302</u>	<u>\$ 77,428</u>	<u>\$ 106,730</u>

The following table presents a reconciliation of income taxes computed at the Federal statutory rate to the actual effective rate for the years ended December 31, 2019, 2018 and 2017:

	2019	2018	2017
Statutory Federal income tax rate	21.0 %	21.0 %	35.0 %
State tax, net of Federal benefit	5.0 %	5.0 %	4.0 %
Nondeductible FDIC premiums	0.2 %	0.3 %	— %
Nondeductible executive compensation	— %	0.1 %	0.3 %
Tax-exempt income	(1.2)%	(1.2)%	(2.0)%
BOLI	(0.4)%	(0.4)%	(1.0)%
Revaluation effect of the Tax Cuts and Jobs Act of 2017	— %	— %	(5.8)%
Other	(0.1)%	0.4 %	0.1 %
Effective income tax rate	<u>24.5 %</u>	<u>25.2 %</u>	<u>30.6 %</u>

The following table reflects the effects of temporary differences that give rise to the components of the net deferred tax liabilities recorded on the consolidated balance sheets as of December 31, 2019 and 2018:

(in thousands)	December 31, 2019	December 31, 2018
Deferred tax assets:		
Allowance for loan and lease losses	\$ 41,176	\$ 37,767
Operating lease liabilities	30,750	—
Accrued severance and deferred compensation	16,131	15,378
Acquired loans	9,953	14,342
Accrued bonuses	6,993	7,936
State taxes	5,906	3,639
Unrealized losses on investment securities	—	15,086
Other	10,737	14,023
Total gross deferred tax assets	121,646	108,171
Deferred tax liabilities:		
Residential mortgage servicing rights	30,901	44,598
Direct financing leases	29,741	22,640
Operating lease right-of-use asset	28,506	—
Fair market value adjustment on junior subordinated debentures	27,404	20,752
Deferred loan fees and costs	21,450	19,841
Goodwill	11,703	9,880
Unrealized gains on investment securities	8,014	—
Other	15,765	15,216
Total gross deferred tax liabilities	173,484	132,927
Valuation allowance	(1,090)	(1,090)
Net deferred tax liabilities	<u>\$ (52,928)</u>	<u>\$ (25,846)</u>

The Company believes it is more likely than not that the benefit from certain state net operating loss ("NOL") carryforwards will not be realized and therefore has provided a valuation allowance of \$1.1 million as of both December 31, 2019 and 2018, on the deferred tax assets relating to these state NOL carryforwards. The Company has determined that no other valuation allowance for the remaining deferred tax assets is required as management believes it is more likely than not that the remaining gross deferred tax assets, net of the valuation allowance, of \$120.6 million and \$107.1 million at December 31, 2019 and 2018, respectively, will be realized principally through future reversals of existing taxable temporary differences. Management further believes that future taxable income will be sufficient to realize the benefits of temporary deductible differences that cannot be realized through carry-back to prior years or through the reversal of future temporary taxable differences.

The Company and its subsidiaries file income tax returns in the U.S. federal jurisdiction, as well as the majority of states and Canada. The Company is no longer subject to U.S. and Canadian tax examinations for years before 2016, and is no longer subject to state tax examinations for years before 2015, with the exception of California, where the statute is still open for tax years 2012 and 2013.

The Company periodically reviews its income tax positions based on tax laws and regulations and financial reporting considerations, and records adjustments as appropriate. This review takes into consideration the status of current taxing authorities' examinations of the Company's tax returns, recent positions taken by the taxing authorities on similar transactions, if any, and the overall tax environment.

The Company had gross unrecognized tax benefits in the amounts of \$4.3 million and \$5.0 million recorded as of December 31, 2019 and 2018, respectively. If recognized, the unrecognized tax benefit would reduce the 2019 annual effective tax rate by 0.8%. Interest on unrecognized tax benefits is reported by the Company as a component of tax expense. As of December 31, 2019 and 2018, the accrued interest related to unrecognized tax benefits is \$70,000 and \$351,000, respectively.

During 2019, a settlement was entered into with California for the 2005 to 2011 tax years resulting in the reversal of \$516,000 of gross unrecognized tax benefits. The 2019 gross unrecognized tax benefits also includes a \$183,000 reversal related to a partial refund for amended returns filed with California for the 2012 and 2013 tax years, for which \$1.7 million of unrecognized tax benefits was recorded in 2018.

Detailed below is a reconciliation of the Company's gross unrecognized tax benefits for the years ended December 31, 2019 and 2018, respectively:

(in thousands)	2019	2018
Balance, beginning of period	\$ 4,971	\$ 3,079
Changes for tax positions of current year	34	165
Changes for tax positions of prior years	—	1,727
Settlement	(698)	—
Balance, end of period	<u>\$ 4,307</u>	<u>\$ 4,971</u>

Note 12 – Interest Bearing Deposits

The following table presents the major types of interest bearing deposits at December 31, 2019 and 2018:

(in thousands)	December 31, 2019	December 31, 2018
Interest bearing demand	\$ 2,524,534	\$ 2,340,471
Money market	6,930,815	6,645,390
Savings	1,471,475	1,492,685
Time, \$100,000 or greater	3,420,446	2,947,084
Time less than \$100,000	1,220,859	1,044,389
Total interest bearing deposits	<u>\$ 15,568,129</u>	<u>\$ 14,470,019</u>

As of December 31, 2019 and 2018, the Company had time deposits of \$1.2 billion and \$979.6 million, respectively, that meet or exceed the FDIC insurance limit of \$250,000.

The following table presents the scheduled maturities of time deposits as of December 31, 2019:

(in thousands)	Amount
Year	
2020	\$ 3,206,379
2021	1,185,027
2022	144,068
2023	36,068
2024	56,177
Thereafter	13,586
Total time deposits	<u>\$ 4,641,305</u>

The following table presents the remaining maturities of time deposits of \$100,000 or more as of December 31, 2019:

(in thousands)	Amount
Three months or less	\$ 857,766
Over three months through six months	814,803
Over six months through twelve months	740,025
Over twelve months	1,007,852
Time, \$100,000 and over	<u>\$ 3,420,446</u>

Note 13 – Securities Sold Under Agreements to Repurchase

The following table presents information regarding securities sold under agreements to repurchase at December 31, 2019 and 2018:

(dollars in thousands)	Repurchase Amount	Weighted Average Interest Rate	Carrying Value of Underlying Assets	Market Value of Underlying Assets
December 31, 2019	\$ 311,308	0.57 %	\$ 392,315	\$ 392,315
December 31, 2018	\$ 297,151	0.38 %	\$ 337,015	\$ 337,015

The securities underlying agreements to repurchase entered into by the Bank are for the same securities originally sold, with a one-day maturity. In all cases, the Bank maintains control over the securities. Securities sold under agreements to repurchase averaged approximately \$299.6 million, \$282.6 million, and \$316.1 million for the years ended December 31, 2019, 2018, and 2017, respectively. The maximum amount outstanding at any month end for the years ended December 31, 2019, 2018, and 2017, was \$336.8 million, \$315.4 million, and \$334.9 million, respectively. Investment securities are pledged as collateral in an amount equal to or greater than the repurchase agreements.

Note 14 – Federal Funds Purchased

At December 31, 2019 and 2018, the Company had no outstanding federal funds purchased balances. The Bank had available lines of credit with the FHLB totaling \$7.0 billion at December 31, 2019 subject to certain collateral requirements. The Bank had available lines of credit with the Federal Reserve totaling \$652.1 million subject to certain collateral requirements, namely the amount of certain pledged loans at December 31, 2019. The Bank had uncommitted federal funds line of credit agreements with additional financial institutions totaling \$460.0 million at December 31, 2019. At December 31, 2019, the lines of credit had interest rates ranging from 1.8% to 2.6%. Availability of the lines is subject to federal funds balances available for loan and continued borrower eligibility and are reviewed and renewed periodically throughout the year. These lines are intended to support short-term liquidity needs, and the agreements may restrict consecutive day usage.

Note 15 – Borrowings

The Bank had outstanding secured advances from the FHLB and other creditors at December 31, 2019 and 2018 with carrying values of \$906.6 million and \$751.8 million, respectively. The following table summarizes the future contractual maturities of borrowed funds as of December 31, 2019:

(in thousands)	Amount
Year	
2020	\$ 510,000
2021	390,000
2022	—
2023	—
2024	—
Thereafter	5,000
Total borrowed funds ⁽¹⁾	<u>\$ 905,000</u>

⁽¹⁾ Amount shows contractual borrowings, excluding acquisition accounting adjustments.

The maximum amount outstanding from the FHLB under term advances at a month end during 2019 and 2018 was \$1.1 billion and \$800.1 million, respectively. The average balance outstanding during 2019 and 2018 was \$895.0 million and \$783.7 million, respectively. The average contractual interest rate on the borrowings was 1.9% in 2019 and 1.8% in 2018. The FHLB requires the Bank to maintain a required level of investment in FHLB and sufficient collateral to qualify for secured advances. The Bank has pledged as collateral for these secured advances all FHLB stock, all funds on deposit with the FHLB, investment and commercial real estate portfolios, accounts, general intangibles, equipment and other property in which a security interest can be granted by the Bank to the FHLB.

Note 16 – Junior Subordinated Debentures

Following is information about the Company's wholly-owned Trusts as of December 31, 2019:

(dollars in thousands)

Trust Name	Issue Date	Issued Amount	Carrying Value ⁽¹⁾	Rate ⁽²⁾	Effective Rate ⁽³⁾	Maturity Date
AT FAIR VALUE:						
Umpqua Statutory Trust II	October 2002	\$ 20,619	\$ 17,535	Floating rate, LIBOR plus 3.35%, adjusted quarterly	6.22 %	October 2032
Umpqua Statutory Trust III	October 2002	30,928	26,524	Floating rate, LIBOR plus 3.45%, adjusted quarterly	6.25 %	November 2032
Umpqua Statutory Trust IV	December 2003	10,310	8,244	Floating rate, LIBOR plus 2.85%, adjusted quarterly	6.05 %	January 2034
Umpqua Statutory Trust V	December 2003	10,310	8,133	Floating rate, LIBOR plus 2.85%, adjusted quarterly	6.02 %	March 2034
Umpqua Master Trust I	August 2007	41,238	25,238	Floating rate, LIBOR plus 1.35%, adjusted quarterly	5.30 %	September 2037
Umpqua Master Trust IB	September 2007	20,619	15,496	Floating rate, LIBOR plus 2.75%, adjusted quarterly	6.18 %	December 2037
Sterling Capital Trust III	April 2003	14,433	12,141	Floating rate, LIBOR plus 3.25%, adjusted quarterly	6.13 %	April 2033
Sterling Capital Trust IV	May 2003	10,310	8,523	Floating rate, LIBOR plus 3.15%, adjusted quarterly	6.12 %	May 2033
Sterling Capital Statutory Trust V	May 2003	20,619	17,124	Floating rate, LIBOR plus 3.25%, adjusted quarterly	6.26 %	June 2033
Sterling Capital Trust VI	June 2003	10,310	8,473	Floating rate, LIBOR plus 3.20%, adjusted quarterly	6.20 %	September 2033
Sterling Capital Trust VII	June 2006	56,702	36,457	Floating rate, LIBOR plus 1.53%, adjusted quarterly	5.32 %	June 2036
Sterling Capital Trust VIII	September 2006	51,547	33,375	Floating rate, LIBOR plus 1.63%, adjusted quarterly	5.44 %	December 2036
Sterling Capital Trust IX	July 2007	46,392	28,922	Floating rate, LIBOR plus 1.40%, adjusted quarterly	5.61 %	October 2037
Lynnwood Financial Statutory Trust I	March 2003	9,279	7,629	Floating rate, LIBOR plus 3.15%, adjusted quarterly	6.20 %	March 2033
Lynnwood Financial Statutory Trust II	June 2005	10,310	7,012	Floating rate, LIBOR plus 1.80%, adjusted quarterly	5.43 %	June 2035
Klamath First Capital Trust I	July 2001	15,464	13,986	Floating rate, LIBOR plus 3.75%, adjusted semiannually	6.64 %	July 2031
Total junior subordinated debentures at fair value		<u>379,390</u>	<u>274,812</u>			
AT AMORTIZED COST:						
Humboldt Bancorp Statutory Trust II	December 2001	10,310	10,949	Floating rate, LIBOR plus 3.60%, adjusted quarterly	4.68 %	December 2031
Humboldt Bancorp Statutory Trust III	September 2003	27,836	29,563	Floating rate, LIBOR plus 2.95%, adjusted quarterly	4.13 %	September 2033
CIB Capital Trust	November 2002	10,310	10,868	Floating rate, LIBOR plus 3.45%, adjusted quarterly	4.68 %	November 2032
Western Sierra Statutory Trust I	July 2001	6,186	6,186	Floating rate, LIBOR plus 3.58%, adjusted quarterly	5.51 %	July 2031
Western Sierra Statutory Trust II	December 2001	10,310	10,310	Floating rate, LIBOR plus 3.60%, adjusted quarterly	5.50 %	December 2031
Western Sierra Statutory Trust III	September 2003	10,310	10,310	Floating rate, LIBOR plus 2.90%, adjusted quarterly	4.89 %	October 2033
Western Sierra Statutory Trust IV	September 2003	10,310	10,310	Floating rate, LIBOR plus 2.90%, adjusted quarterly	4.89 %	September 2033
Total junior subordinated debentures at amortized cost		<u>85,572</u>	<u>88,496</u>			
Total junior subordinated debentures		<u>\$ 464,962</u>	<u>\$ 363,308</u>			

(1) Includes acquisition accounting adjustments, net of accumulated amortization, for junior subordinated debentures assumed in connection with previous mergers as well as fair value adjustments related to trusts recorded at fair value.

(2) Contractual interest rate of junior subordinated debentures.

(3) Effective interest rate based upon the carrying value as of December 31, 2019.

The Trusts are reflected as junior subordinated debentures in the *Consolidated Balance Sheets*. The common stock issued by the Trusts is recorded in other assets in the *Consolidated Balance Sheets*, and totaled \$14.0 million at both December 31, 2019 and 2018. As of December 31, 2019, all of the junior subordinated debentures were redeemable at par, at their applicable quarterly or semiannual interest payment dates.

The Company selected the fair value measurement option for junior subordinated debentures originally issued by the Company (the Umpqua Statutory Trusts) and for junior subordinated debentures acquired from Sterling Financial Corporation. Based on an overall decline in discount rates, partially offset by an increase in the credit spreads, the fair value of the junior subordinated debentures decreased during the year. A gain of \$25.9 million for the year ended December 31, 2019, as compared to the loss of \$23.3 million for the year ended December 31, 2018, were recorded in other comprehensive income (loss).

Note 17 – Employee Benefit Plans

Employee Savings Plan-Substantially all of the Company's employees are eligible to participate in the Umpqua Bank 401(k) and Profit Sharing Plan (the "Umpqua 401(k) Plan"), a defined contribution and profit sharing plan sponsored by the Company. Employees may elect to have a portion of their salary contributed to the plan in conformity with Section 401(k) of the Internal Revenue Code. At the discretion of the Company's Board of Directors, the Company may elect to make matching and/or profit sharing contributions to the Umpqua 401(k) Plan based on profits of the Bank. As of December 31, 2019, the Company had no accrued funds for employee profit sharing to be paid subsequent to year-end compared to \$3.3 million as of December 31, 2018. The Company's contributions charged to expense including the match and profit sharing amounted to \$8.6 million, \$10.7 million, and \$9.8 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Supplemental Retirement Plans-The Company has established the Umpqua Holdings Corporation Deferred Compensation & Supplemental Retirement Plan (the "DC/SRP"), a nonqualified deferred compensation plan to help supplement the retirement income of certain highly compensated executives selected by resolution of the Company's Board of Directors. The DC/SRP has two components, a supplemental retirement plan ("SRP") and a deferred compensation plan ("DCP"). The Company may make discretionary contributions to the SRP. The SRP plan balances at December 31, 2019 and 2018 were \$529,000 and \$475,000, respectively, and are recorded in other liabilities. Under the DCP, eligible officers may elect to defer up to 50% of their salary into a plan account. The DCP plan balance was \$9.7 million and \$8.6 million at December 31, 2019 and 2018, respectively. In addition, the Company has established a supplemental retirement plan for the former Executive Chairman of the Board of Directors. The balance for this plan was \$9.0 million and \$9.4 million as of December 31, 2019 and 2018, respectively.

Acquired Plans- In connection with prior acquisitions, the Bank assumed liability for certain salary continuation, supplemental retirement, and deferred compensation plans for key employees, retired employees and directors of acquired institutions. Subsequent to the effective date of these acquisitions, no additional contributions were made to these plans. These plans are unfunded, and provide for the payment of a specified amount on a monthly basis for a specified period (generally 10 to 20 years) after retirement. In the event of a participant employee's death prior to or during retirement, the Bank, in most cases, is obligated to pay to the designated beneficiary the benefits set forth under the plans. At December 31, 2019 and 2018, liabilities recorded for the estimated present value of future plan benefits totaled \$28.7 million and \$27.3 million, respectively, and are recorded in other liabilities. For the years ended December 31, 2019, 2018 and 2017, expense recorded for these plan's benefits totaled \$1.5 million, \$1.0 million, and \$2.2 million, respectively.

Rabbi Trusts-The Bank has established, for the DC/SRP plan noted above, and sponsors, for some deferred compensation plans assumed in connection with prior mergers, irrevocable trusts commonly referred to as "Rabbi Trusts." The trust assets (generally cash and trading assets) are consolidated in the Company's balance sheets and the associated liability (which equals the related asset balances) is included in other liabilities. The asset and liability balances related to these trusts as of December 31, 2019 and 2018 were \$12.2 million and \$11.0 million, respectively.

Bank-Owned Life Insurance-The Bank has purchased, or acquired through mergers, life insurance policies in connection with the implementation of certain executive supplemental income, salary continuation and deferred compensation retirement plans. These policies provide protection against the adverse financial effects that could result from the death of a key employee and provide tax-exempt income to offset expenses associated with the plans. It is the Bank's intent to hold these policies as a long-term investment. However, there will be an income tax impact if the Bank chooses to surrender certain policies. Although the lives of individual current or former management-level employees are insured, the Bank is the owner and sole or partial beneficiary. At December 31, 2019 and 2018, the cash surrender value of these policies was \$320.6 million and \$313.6 million, respectively. At December 31, 2019 and 2018, the Bank also had liabilities for post-retirement benefits payable to other partial beneficiaries under some of these life insurance policies of \$3.4 million and \$6.8 million, respectively. The Bank is exposed to credit risk to the extent an insurance company is unable to fulfill its financial obligations under a policy. In order to mitigate this risk, the Bank uses a variety of insurance companies and regularly monitors their financial condition.

Note 18 – Commitments and Contingencies

Financial Instruments with Off-Balance-Sheet Risk — The Company's financial statements do not reflect various commitments and contingent liabilities that arise in the normal course of the Bank's business and involve elements of credit, liquidity, and interest rate risk.

The following table presents a summary of the Bank's commitments and contingent liabilities:

(in thousands)	December 31, 2019
Commitments to extend credit	\$ 5,620,547
Forward sales commitments	\$ 668,177
Commitments to originate residential mortgage loans held for sale	\$ 289,136
Standby letters of credit	\$ 106,307

The Bank is a party to financial instruments with off-balance-sheet credit risk in the normal course of business to meet the financing needs of its customers. These financial instruments include commitments to extend credit, standby letters of credit and financial guarantees. Those instruments involve elements of credit and interest-rate risk similar to the risk involved in on-balance sheet items recognized in the *Consolidated Balance Sheets*. The contract or notional amounts of those instruments reflect the extent of the Bank's involvement in particular classes of financial instruments.

The Bank's exposure to credit loss in the event of nonperformance by the other party to the financial instrument for commitments to extend credit and standby letters of credit, and financial guarantees written, is represented by the contractual notional amount of those instruments. The Bank uses the same credit policies in making commitments and conditional obligations as it does for on-balance-sheet instruments.

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any covenant or condition established in the applicable contract. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since many of the commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. While most standby letters of credit are not utilized, a significant portion of such utilization is on an immediate payment basis. The Bank evaluates each customer's creditworthiness on a case-by-case basis. The amount of collateral obtained, if it is deemed necessary by the Bank upon extension of credit, is based on management's credit evaluation of the counterparty. Collateral varies but may include cash, accounts receivable, inventory, premises and equipment and income-producing commercial properties.

Standby letters of credit and written financial guarantees are conditional commitments issued by the Bank to guarantee the performance of a customer to a third party. These guarantees are primarily issued to support public and private borrowing arrangements, including international trade finance, commercial paper, bond financing and similar transactions. The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loan facilities to customers. The Bank holds cash, marketable securities, or real estate as collateral supporting those commitments for which collateral is deemed necessary. There were no financial guarantees in connection with standby letters of credit that the Bank was required to perform on for the years ended December 31, 2019 and 2018. At December 31, 2019, approximately \$94.2 million of standby letters of credit expire within one year, and \$12.1 million expire thereafter. During the years ended December 31, 2019 and 2018, the Bank recorded approximately \$1.5 million and \$787,000, respectively in fees associated with standby letters of credit.

Residential mortgage loans sold into the secondary market are sold with limited recourse against the Company, meaning that the Company may be obligated to repurchase or otherwise reimburse the investor for incurred losses on any loans that suffer an early payment default, are not underwritten in accordance with investor guidelines or are determined to have pre-closing borrower misrepresentations. As of December 31, 2019, the Company had a residential mortgage loan repurchase reserve liability of \$1.6 million. For loans sold to GNMA, the Bank has a unilateral right but not the obligation to repurchase loans that are past due 90 days or more. As of December 31, 2019, the Bank has recorded a liability for the loans subject to this repurchase right of \$4.3 million, and has recorded these loans as part of the loan portfolio as if the Bank had repurchased these loans.

Legal Proceedings—The Company is involved in legal proceedings occurring in the ordinary course of business. Based on information currently available, advice of counsel and available insurance coverage, management believes that the eventual outcome of actions against the Company or its subsidiaries will not, individually or in the aggregate, have a material adverse effect on its consolidated financial condition. However, it is possible that the ultimate resolution of a matter, if unfavorable, may be material to results of operations for any particular period.

Contingencies—In late 2017, the Company launched "Umpqua Next Gen," an initiative designed to modernize and evolve the Bank, focusing on operational excellence, balanced growth and human-digital programs. As part of this initiative, management evaluated every part of operations and how the Company could evolve to deliver a highly differentiated and compelling banking experience. In 2018, the Bank consolidated 31 stores. During the year ended December 31, 2019, the Bank consolidated an additional 23 stores and sold 4 stores. These costs were included in exit and disposal costs within other expenses in non-interest expense. Additional costs may be incurred as these stores are consolidated. The Next Gen strategy involves evaluation of these consolidations and possible future consolidations as part of the strategy.

Concentrations of Credit Risk—The Bank grants real estate mortgage, real estate construction, commercial, agricultural and installment loans and leases to customers throughout Oregon, Washington, California, Idaho, and Nevada. In management's judgment, a concentration exists in real estate-related loans, which represented approximately 76% and 75% of the Bank's loan and lease portfolio for December 31, 2019 and 2018, respectively. Commercial real estate concentrations are managed to ensure wide geographic and business diversity. Although management believes such concentrations have no more than the normal risk of collectability, a substantial decline in the economy in general, material increases in interest rates, changes in tax policies, tightening credit or refinancing markets, or a decline in real estate values in the Bank's primary market areas in particular, could have an adverse impact on the repayment of these loans. Personal and business incomes, proceeds from the sale of real property, or proceeds from refinancing, represent the primary sources of repayment for a majority of these loans.

The Bank recognizes the credit risks inherent in dealing with other depository institutions. Accordingly, to prevent excessive exposure to any single correspondent, the Bank has established general standards for selecting correspondent banks as well as internal limits for allowable exposure to any single correspondent. In addition, the Bank has an investment policy that sets forth limitations that apply to all investments with respect to credit rating and concentrations with an issuer.

Note 19 – Derivatives

The Bank may use derivatives to hedge the risk of changes in the fair values of interest rate lock commitments and residential mortgage loans held for sale. None of the Company's derivatives are designated as hedging instruments. Rather, they are accounted for as free-standing derivatives, or economic hedges, with changes in the fair value of the derivatives reported in income. The Company primarily utilizes forward interest rate contracts in its derivative risk management strategy.

The Bank enters into forward delivery contracts to sell residential mortgage loans or mortgage-backed securities to broker/dealers at specific prices and dates in order to hedge the interest rate risk in its portfolio of mortgage loans held for sale and its residential mortgage loan commitments. Credit risk associated with forward contracts is limited to the replacement cost of those forward contracts in a gain position. There were no counterparty default losses on forward contracts in 2019, 2018, and 2017. Market risk with respect to forward contracts arises principally from changes in the value of contractual positions due to changes in interest rates. The Bank limits its exposure to market risk by monitoring differences between commitments to customers and forward contracts with broker/dealers. In the event the Company has forward delivery contract commitments in excess of available mortgage loans, the Company completes the transaction by either paying or receiving a fee to or from the broker/dealer equal to the increase or decrease in the market value of the forward contract. At December 31, 2019, the Bank had commitments to originate mortgage loans held for sale totaling \$289.1 million and forward sales commitments of \$668.2 million, which are used to hedge both on-balance sheet and off-balance sheet exposures.

The Bank executes interest rate swaps with commercial banking customers to facilitate their respective risk management strategies. Those interest rate swaps are simultaneously hedged by offsetting the interest rate swaps that the Bank executes with a third party, such that the Bank minimizes its net risk exposure. As of December 31, 2019, the Bank had 846 interest rate swaps with an aggregate notional amount of \$5.7 billion related to this program. As of December 31, 2018, the Bank had 767 interest rate swaps with an aggregate notional amount of \$4.2 billion related to this program.

As of December 31, 2019 and 2018, the termination value of derivatives in a net liability position, which includes accrued interest but excludes any adjustment for nonperformance risk, related to these agreements was \$7.0 million and \$12.7 million, respectively. The Bank has collateral posting requirements for initial margins with its clearing members and clearing houses and has been required to post collateral against its obligations under these agreements of \$86.2 million and \$36.9 million as of December 31, 2019 and 2018, respectively.

The Bank's interest rate swap derivatives are cleared through the Chicago Mercantile Exchange and London Clearing House. These clearing houses characterize the variation margin payments, for derivative contracts that are referred to as settled-to-market, as settlements of the derivative's mark-to-market exposure and not collateral. The Company accounts for the variation margin as an adjustment to cash collateral, as well as a corresponding adjustment to the derivative asset and liability. As of December 31, 2019 and 2018, the variation margin adjustment was a negative adjustment of \$144.8 million and \$32.5 million, respectively.

The Bank incorporates credit valuation adjustments ("CVA") to appropriately reflect nonperformance risk in the fair value measurement of its derivatives. As of December 31, 2019 and 2018, the net CVA decreased the settlement values of the Bank's net derivative assets by \$9.1 million and \$3.0 million, respectively. Various factors impact changes in the CVA over time, including changes in the credit spreads of the parties to the contracts, as well as changes in market rates and volatilities, which affect the total expected exposure of the derivative instruments.

The Bank also executes foreign currency hedges as a service for customers. These foreign currency hedges are then offset with hedges with other third-party banks to limit the Bank's risk exposure.

The Bank's derivative assets are included in other assets, while the derivative liabilities are included in other liabilities on the consolidated balance sheet. The following table summarizes the types of derivatives, separately by assets and liabilities and the fair values of such derivatives as of December 31, 2019 and 2018:

	Asset Derivatives		Liability Derivatives	
	December 31, 2019	December 31, 2018	December 31, 2019	December 31, 2018
Derivatives not designated as hedging instrument				
Interest rate lock commitments	\$ 7,056	\$ 6,757	\$ —	\$ —
Interest rate forward sales commitments	105	1	1,351	2,963
Interest rate swaps	142,787	42,276	7,001	12,746
Foreign currency derivatives	626	450	456	273
Total derivative assets and liabilities	\$ 150,574	\$ 49,484	\$ 8,808	\$ 15,982

(in thousands)

The following table summarizes the types of derivatives and the gains (losses) recorded during the years ended December 31, 2019, 2018, and 2017:

(in thousands)

Derivatives not designated as hedging instrument	2019	2018	2017
Interest rate lock commitments	\$ 298	\$ 2,006	\$ 676
Interest rate forward sales commitments	(12,096)	9,144	(11,024)
Interest rate swaps	(6,038)	(1,362)	(1,451)
Foreign currency derivatives	2,078	1,672	1,094
Total derivative (losses) gains	\$ (15,758)	\$ 11,460	\$ (10,705)

The gains and losses on the Company's mortgage banking derivatives are included in mortgage banking revenue. The gains and losses on the Company's interest rate swaps and foreign currency derivatives are included in other income.

Note 20 – Stock Compensation and Share Repurchase Plan

Stock-Based Compensation

The compensation cost related to restricted stock, stock options and restricted stock units in Company stock granted to employees and included in salaries and employee benefits was \$7.0 million, \$6.3 million and \$8.5 million for the years ended December 31, 2019, 2018, and 2017, respectively. The total income tax benefit recognized related to stock-based compensation was \$1.8 million, \$1.6 million and \$3.3 million for the years ended December 31, 2019, 2018, and 2017, respectively.

As of December 31, 2019, there was \$10.8 million of total unrecognized compensation cost related to nonvested restricted stock awards which is expected to be recognized over a weighted-average period of 1.77 years, assuming expected performance conditions are met for certain awards.

The Company grants restricted stock periodically for the benefit of employees and directors. Restricted shares generally vest over a three year period, subject to time or time plus performance vesting conditions. The following table summarizes information about nonvested restricted share activity for the years ended December 31, 2019, 2018, and 2017:

	2019		2018		2017	
	Restricted Shares Outstanding	Weighted Average Grant Date Fair Value	Restricted Shares Outstanding	Weighted Average Grant Date Fair Value	Restricted Shares Outstanding	Weighted Average Grant Date Fair Value
(shares in thousands)						
Balance, beginning of period	979	\$ 19.10	1,248	\$ 16.61	1,096	\$ 15.61
Granted	628	\$ 17.74	521	\$ 21.76	624	\$ 18.19
Vested/released	(388)	\$ 17.34	(554)	\$ 16.81	(318)	\$ 16.37
Forfeited/expired	(36)	\$ 19.58	(236)	\$ 17.19	(154)	\$ 16.39
Balance, end of period	1,183	\$ 18.94	979	\$ 19.10	1,248	\$ 16.61

The total fair value of restricted shares vested and released was \$6.7 million, \$11.9 million, and \$5.8 million, for the years ended December 31, 2019, 2018 and 2017, respectively.

For the years ended December 31, 2019, 2018 and 2017, the Company received income tax benefits of \$1.8 million, \$3.4 million, and \$2.7 million, respectively, related to the vesting of restricted shares. The tax deficiency or benefit is recorded as income tax expense or benefit in the period the shares are vested.

Share Repurchase Plan- The Company's share repurchase plan authorizes the repurchase of up to 15 million shares of common stock. The repurchase program has been extended multiple times by the board with the current expiration date of July 31, 2021. As of December 31, 2019, a total of 9.9 million shares remain available for repurchase. The Company repurchased 300,000, 327,000, and 325,000 shares under the repurchase plan in the years ended December 31, 2019, 2018, and 2017, respectively. The timing and amount of future repurchases will depend upon the market price for the Company's common stock, securities laws and regulations restricting repurchases, asset growth, earnings, and capital plan.

The Company also has restricted stock plans which provide for the payment of withholding taxes or the option exercise price by tendering previously owned or recently vested shares. Restricted shares cancelled to pay withholding taxes totaled 115,000, 187,000, and 91,000 shares during the years ended December 31, 2019, 2018 and 2017, respectively.

Note 21 – Regulatory Capital

The Company is subject to various regulatory capital requirements administered by the federal banking agencies. Failure to meet minimum capital requirements can initiate certain mandatory and possible additional discretionary actions by regulators that, if undertaken, could have a material effect on the Company's operations and financial statements. Under capital adequacy guidelines, the Company must meet specific capital guidelines that involve quantitative measures of the Company's assets, liabilities, and certain off-balance sheet items as calculated under regulatory accounting practices. The Company's capital amounts and classifications are also subject to qualitative judgments by the regulators about risk components, asset risk weighting, and other factors.

Quantitative measures established by regulation to ensure capital adequacy require the Company to maintain minimum amounts and ratios (set forth in the table below) of total capital, Tier 1 capital and Tier 1 common to risk-weighted assets (as defined in the regulations), and of Tier 1 capital to average assets (as defined in the regulations). Management believes, as of December 31, 2019, that the Company meets all capital adequacy requirements to which it is subject.

The following table shows the Company's consolidated and the Bank's capital adequacy ratios compared to the regulatory minimum capital ratio and the regulatory minimum capital ratio needed to qualify as a "well-capitalized" institution, as calculated under regulatory guidelines of Basel III at December 31, 2019 and 2018:

(dollars in thousands)	Actual		For Capital Adequacy Purposes		To be Well Capitalized	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
December 31, 2019						
Total Capital						
(to Risk Weighted Assets)						
Consolidated	\$ 3,104,444	13.96 %	\$ 1,779,265	8.00 %	\$ 2,224,081	10.00 %
Umpqua Bank	\$ 2,945,830	13.26 %	\$ 1,777,265	8.00 %	\$ 2,221,581	10.00 %
Tier 1 Capital						
(to Risk Weighted Assets)						
Consolidated	\$ 2,490,709	11.20 %	\$ 1,334,449	6.00 %	\$ 1,779,265	8.00 %
Umpqua Bank	\$ 2,783,095	12.53 %	\$ 1,332,949	6.00 %	\$ 1,777,265	8.00 %
Tier 1 Common						
(to Risk Weighted Assets)						
Consolidated	\$ 2,490,709	11.20 %	\$ 1,000,837	4.50 %	\$ 1,445,653	6.50 %
Umpqua Bank	\$ 2,783,095	12.53 %	\$ 999,712	4.50 %	\$ 1,444,028	6.50 %
Tier 1 Capital						
(to Average Assets)						
Consolidated	\$ 2,490,709	9.16 %	\$ 1,087,509	4.00 %	\$ 1,359,387	5.00 %
Umpqua Bank	\$ 2,783,095	10.24 %	\$ 1,086,999	4.00 %	\$ 1,358,749	5.00 %
December 31, 2018						
Total Capital						
(to Risk Weighted Assets)						
Consolidated	\$ 2,916,143	13.51 %	\$ 1,727,280	8.00 %	\$ 2,159,100	10.00 %
Umpqua Bank	\$ 2,765,748	12.83 %	\$ 1,724,757	8.00 %	\$ 2,155,946	10.00 %
Tier 1 Capital						
(to Risk Weighted Assets)						
Consolidated	\$ 2,315,750	10.73 %	\$ 1,295,460	6.00 %	\$ 1,727,280	8.00 %
Umpqua Bank	\$ 2,616,456	12.14 %	\$ 1,293,568	6.00 %	\$ 1,724,757	8.00 %
Tier 1 Common						
(to Risk Weighted Assets)						
Consolidated	\$ 2,315,750	10.73 %	\$ 971,595	4.50 %	\$ 1,403,415	6.50 %
Umpqua Bank	\$ 2,616,456	12.14 %	\$ 970,176	4.50 %	\$ 1,401,365	6.50 %
Tier 1 Capital						
(to Average Assets)						
Consolidated	\$ 2,315,750	9.31 %	\$ 994,905	4.00 %	\$ 1,243,631	5.00 %
Umpqua Bank	\$ 2,616,456	10.53 %	\$ 994,268	4.00 %	\$ 1,242,835	5.00 %

Note 22 – Fair Value Measurement

The following table presents estimated fair values of the Company's financial instruments as of December 31, 2019 and 2018, whether or not recognized or recorded at fair value in the *Consolidated Balance Sheets*:

(in thousands)	Level	December 31, 2019		December 31, 2018	
		Carrying Value	Fair Value	Carrying Value	Fair Value
Financial assets:					
Cash and cash equivalents	1	\$ 1,362,756	\$ 1,362,756	\$ 622,637	\$ 622,637
Equity and other investment securities	1,2	80,165	80,165	61,841	61,841
Investment securities available for sale	2	2,814,682	2,814,682	2,977,108	2,977,108
Investment securities held to maturity	3	3,260	4,263	3,606	4,644
Loans held for sale, at fair value	2	513,431	513,431	166,461	166,461
Loans and leases, net	3	21,038,055	21,274,319	20,277,795	20,117,939
Restricted equity securities	1	46,463	46,463	40,268	40,268
Residential mortgage servicing rights	3	115,010	115,010	169,025	169,025
Bank owned life insurance	1	320,611	320,611	313,626	313,626
Derivatives	2,3	150,574	150,574	49,484	49,484
Visa Inc. Class B common stock ⁽¹⁾	3	—	—	—	99,353
Financial liabilities:					
Deposits	1,2	\$22,481,504	\$22,503,916	\$21,137,486	\$21,116,852
Securities sold under agreements to repurchase	2	311,308	311,308	297,151	297,151
Borrowings	2	906,635	906,160	751,788	738,107
Junior subordinated debentures, at fair value	3	274,812	274,812	300,870	300,870
Junior subordinated debentures, at amortized cost	3	88,496	70,909	88,724	76,569
Derivatives	2	8,808	8,808	15,982	15,982

⁽¹⁾ During 2019, the Company sold all 486,346 shares of the Visa Inc. Class B common stock held, an equity security that did not have a readily determinable fair value, resulting in a one-time realized gain of \$81.9 million. Accordingly, the book value and fair value are zero at December 31, 2019, as the Company no longer holds this security.

Fair Value of Assets and Liabilities Measured on a Recurring Basis

The following tables present information about the Company's assets and liabilities measured at fair value on a recurring basis as of December 31, 2019 and 2018:

(in thousands)

Description	December 31, 2019			
	Total	Level 1	Level 2	Level 3
Financial assets:				
Equity and other investment securities				
Investments in mutual funds and other securities	\$ 67,133	\$ 52,096	\$ 15,037	\$ —
Equity securities held in rabbi trusts	12,147	12,147	—	—
Other investments securities ⁽¹⁾	885	—	885	—
Investment securities available for sale				
U.S. Treasury and agencies	643,604	—	643,604	—
Obligations of states and political subdivisions	261,094	—	261,094	—
Residential mortgage-backed securities and collateralized mortgage obligations	1,909,984	—	1,909,984	—
Loans held for sale, at fair value	513,431	—	513,431	—
Residential mortgage servicing rights, at fair value	115,010	—	—	115,010
Derivatives				
Interest rate lock commitments	7,056	—	—	7,056
Interest rate forward sales commitments	105	—	105	—
Interest rate swaps	142,787	—	142,787	—
Foreign currency derivatives	626	—	626	—
Total assets measured at fair value	<u>\$ 3,673,862</u>	<u>\$ 64,243</u>	<u>\$ 3,487,553</u>	<u>\$ 122,066</u>
Financial liabilities:				
Junior subordinated debentures, at fair value	\$ 274,812	\$ —	\$ —	\$ 274,812
Derivatives				
Interest rate forward sales commitments	1,351	—	1,351	—
Interest rate swaps	7,001	—	7,001	—
Foreign currency derivatives	456	—	456	—
Total liabilities measured at fair value	<u>\$ 283,620</u>	<u>\$ —</u>	<u>\$ 8,808</u>	<u>\$ 274,812</u>

⁽¹⁾ Other investment securities includes securities held by Umpqua Investments as trading debt securities.

(in thousands) Description	December 31, 2018			
	Total	Level 1	Level 2	Level 3
Financial assets:				
Equity and other investment securities				
Investments in mutual funds and other securities	\$ 50,475	\$ 50,475	\$ —	\$ —
Equity securities held in rabbi trusts	10,918	10,918	—	—
Other investments securities ⁽¹⁾	448	—	448	—
Investment securities available for sale				
U.S. Treasury and agencies	39,656	—	39,656	—
Obligations of states and political subdivisions	309,171	—	309,171	—
Residential mortgage-backed securities and collateralized mortgage obligations	2,628,281	—	2,628,281	—
Loans held for sale, at fair value	166,461	—	166,461	—
Residential mortgage servicing rights, at fair value	169,025	—	—	169,025
Derivatives				
Interest rate lock commitments	6,757	—	—	6,757
Interest rate forward sales commitments	1	—	1	—
Interest rate swaps	42,276	—	42,276	—
Foreign currency derivatives	450	—	450	—
Total assets measured at fair value	<u>\$ 3,423,919</u>	<u>\$ 61,393</u>	<u>\$ 3,186,744</u>	<u>\$ 175,782</u>
Financial liabilities:				
Junior subordinated debentures, at fair value	\$ 300,870	\$ —	\$ —	\$ 300,870
Derivatives				
Interest rate forward sales commitments	2,963	—	2,963	—
Interest rate swaps	12,746	—	12,746	—
Foreign currency derivatives	273	—	273	—
Total liabilities measured at fair value	<u>\$ 316,852</u>	<u>\$ —</u>	<u>\$ 15,982</u>	<u>\$ 300,870</u>

⁽¹⁾ Other investment securities includes securities held by Umpqua Investments as trading debt securities

The following methods were used to estimate the fair value of each class of financial instrument that is carried at fair value in the tables above:

Securities— Fair values for investment securities are based on quoted market prices when available or through the use of alternative approaches, such as matrix or model pricing, or broker indicative bids, when market quotes are not readily accessible or available. Management periodically reviews the pricing information received from the third-party pricing service and compares it to a secondary pricing service, evaluating significant price variances between services to determine an appropriate estimate of fair value to report.

Loans Held for Sale— Fair value for residential mortgage loans originated as held for sale is determined based on quoted secondary market prices for similar loans, including the implicit fair value of embedded servicing rights.

Residential Mortgage Servicing Rights— The fair value of the MSR is estimated using a discounted cash flow model. Assumptions used include market discount rates, anticipated prepayment speeds, delinquency and foreclosure rates, and ancillary fee income net of servicing costs. This model is periodically validated by an independent model validation group. The model assumptions and the MSR fair value estimates are also compared to observable trades of similar portfolios as well as to MSR broker valuations and industry surveys, as available. Management believes the significant inputs utilized are indicative of those that would be used by market participants.

Junior Subordinated Debentures— The fair value of junior subordinated debentures is estimated using an income approach valuation technique. The significant inputs utilized in the estimation of fair value of these instruments are the credit risk adjusted spread and three-month LIBOR. The credit risk adjusted spread represents the nonperformance risk of the liability, contemplating the inherent risk of the obligation. The Company periodically utilizes a valuation firm to determine or validate the reasonableness of inputs and factors that are used to determine the fair value. The ending carrying (fair) value of the junior subordinated debentures measured at fair value represents the estimated amount that would be paid to transfer these liabilities in an orderly transaction amongst market participants. Due to credit concerns in the capital markets and inactivity in the trust preferred markets that have limited the observability of market spreads, the Company has classified this as a Level 3 fair value measure.

Derivative Instruments— The fair value of the interest rate lock commitments and forward sales commitments are estimated using quoted or published market prices for similar instruments, adjusted for factors such as pull-through rate assumptions based on historical information, where appropriate. The pull-through rate assumptions are considered Level 3 valuation inputs and are significant to the interest rate lock commitment valuation; as such, the interest rate lock commitment derivatives are classified as Level 3. The fair value of the interest rate swaps is determined using a discounted cash flow technique incorporating credit valuation adjustments to reflect nonperformance risk in the measurement of fair value. Although the Bank has determined that the majority of the inputs used to value its interest rate swap derivatives fall within Level 2 of the fair value hierarchy, the CVA associated with its derivatives utilize Level 3 inputs, such as estimates of current credit spreads to evaluate the likelihood of default by itself and its counterparties. However, as of December 31, 2019, the Bank has assessed the significance of the impact of the CVA on the overall valuation of its interest rate swap positions and has determined that the CVA are not significant to the overall valuation of its interest rate swap derivatives. As a result, the Bank has classified its interest rate swap derivative valuations in Level 2 of the fair value hierarchy.

Assets and Liabilities Measured at Fair Value Using Significant Unobservable Inputs (Level 3)

The following table provides a description of the valuation technique, significant unobservable inputs, and qualitative information about the unobservable inputs for the Company's assets and liabilities classified as Level 3 and measured at fair value on a recurring basis at December 31, 2019:

Financial Instrument	Valuation Technique	Unobservable Input	Weighted Average
Residential mortgage servicing rights	Discounted cash flow	Constant prepayment rate	13.33%
		Discount rate	9.75%
Interest rate lock commitments	Internal pricing model	Pull-through rate	87.98%
Junior subordinated debentures	Discounted cash flow	Credit spread	5.14%

Generally, any significant increases in the constant prepayment rate and discount rate utilized in the fair value measurement of the residential mortgage servicing rights will result in negative fair value adjustments (and a decrease in the fair value measurement). Conversely, a decrease in the constant prepayment rate and discount rate will result in a positive fair value adjustment (and an increase in the fair value measurement).

An increase in the pull-through rate utilized in the fair value measurement of the interest rate lock commitment derivative will result in positive fair value adjustments (and an increase in the fair value measurement). Conversely, a decrease in the pull-through rate will result in a negative fair value adjustment (and a decrease in the fair value measurement).

Management believes that the credit risk adjusted spread utilized in the fair value measurement of the junior subordinated debentures carried at fair value is indicative of the nonperformance risk premium a willing market participant would require under current market conditions, that is, the inactive market. Management attributes the change in fair value of the junior subordinated debentures during the period to a decline in discount rates, partially offset by an increase in the credit spread for this type of debt. Future contractions in the instrument-specific credit risk adjusted spread relative to the spread currently utilized to measure the Company's junior subordinated debentures at fair value as of December 31, 2019, or the passage of time, will result in negative fair value adjustments. Generally, an increase in the credit risk adjusted spread and/or the forward swap interest rate curve will result in positive fair value adjustments (and a decrease in the fair value measurement). Conversely, a decrease in the credit risk adjusted spread and/or the forward swap interest rate curve will result in negative fair value adjustments (and an increase in the fair value measurement).

The following table provides a reconciliation of assets and liabilities measured at fair value using significant unobservable inputs (Level 3) on a recurring basis during the years ended December 31, 2019 and 2018.

	2019			2018		
	Residential mortgage servicing rights	Interest rate lock commitments, net	Junior subordinated debentures, at fair value	Residential mortgage servicing rights	Interest rate lock commitments, net	Junior subordinated debentures, at fair value
(in thousands)						
Beginning balance	\$ 169,025	\$ 6,757	\$ 300,870	\$ 153,151	\$ 4,752	\$ 277,155
Change included in earnings	(44,783)	5,652	18,183	(13,195)	(27)	17,114
Change in fair values included in comprehensive income/loss	—	—	(25,855)	—	—	23,268
Purchases and issuances	25,169	29,291	—	29,069	23,010	—
Sales and settlements	(34,401)	(34,644)	(18,386)	—	(20,978)	(16,667)
Ending balance	<u>\$ 115,010</u>	<u>\$ 7,056</u>	<u>\$ 274,812</u>	<u>\$ 169,025</u>	<u>\$ 6,757</u>	<u>\$ 300,870</u>
Net change in unrealized (losses) or gains relating to items held at end of period	\$ (19,375)	\$ 7,056	\$ (7,672)	\$ 11,338	\$ 6,757	\$ 40,382

Changes in residential mortgage servicing rights carried at fair value are recorded in residential mortgage banking revenue within non-interest income. Gains (losses) on interest rate lock commitments carried at fair value are recorded in residential mortgage banking revenue within non-interest income. The contractual interest expense on the junior subordinated debentures is recorded on an accrual basis as interest on junior subordinated debentures within interest expense. Settlements related to the junior subordinated debentures represent the payment of accrued interest that is embedded in the fair value of these liabilities.

The change in fair value of junior subordinated debentures is attributable to the change in the instrument specific credit risk, accordingly, the unrealized gains on fair value of junior subordinated debentures for the year ended December 31, 2019 of \$25.9 million are recorded net of tax as other comprehensive income of \$19.2 million. Comparatively, losses of \$23.3 million were recorded net of tax as other comprehensive losses of \$17.3 million for the year ended December 31, 2018. The gain recorded for the year ended December 31, 2019 was due primarily to a decline in the discount rates, partially offset by an increase in the credit spread as compared to prior periods.

From time to time, certain assets are measured at fair value on a nonrecurring basis. These adjustments to fair value generally result from the application of lower-of-cost-or-market accounting or write-downs of individual assets due to impairment, typically on collateral dependent loans.

Fair Value of Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

The following tables present information about the Company's assets and liabilities measured at fair value on a nonrecurring basis for which a nonrecurring change in fair value has been recorded during the reporting period. The amounts disclosed below represent the fair values at the time the nonrecurring fair value measurements were made, and not necessarily the fair value as of the dates reported upon.

(in thousands)	2019			
	Total	Level 1	Level 2	Level 3
Loans and leases	\$ 18,134	\$ —	\$ —	\$ 18,134
Other real estate owned	2,079	—	—	2,079
Total assets measured at fair value on a nonrecurring basis	<u>\$ 20,213</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 20,213</u>

(in thousands)	2018			
	Total	Level 1	Level 2	Level 3
Loans and leases	\$ 98,696	\$ —	\$ —	\$ 98,696
Other real estate owned	7,532	—	—	7,532
Total assets measured at fair value on a nonrecurring basis	<u>\$ 106,228</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 106,228</u>

The following table presents the losses resulting from nonrecurring fair value adjustments for the years ended December 31, 2019, 2018 and 2017:

(in thousands)	2019	2018	2017
Loans and leases	\$ 67,956	\$ 59,727	\$ 48,488
Other real estate owned	3,013	1,277	146
Total losses from nonrecurring measurements	<u>\$ 70,969</u>	<u>\$ 61,004</u>	<u>\$ 48,634</u>

The following provides a description of the valuation technique and inputs for the Company's assets and liabilities classified as Level 3 and measured at fair value on a nonrecurring basis. Unobservable inputs and qualitative information about the unobservable inputs are not presented as the fair value is determined by third-party information. The loans and leases amounts above represent impaired, collateral dependent loans and leases that have been adjusted to fair value. When a collateral dependent loan or lease is identified as impaired, the Bank measures the impairment using the current fair value of the collateral, less selling costs. Depending on the characteristics of a loan, the fair value of collateral is generally estimated by obtaining external appraisals, but in some cases, the value of the collateral may be estimated as having little to no value. If it is determined that the value of the impaired loan or lease is less than its recorded investment, the Bank recognizes this impairment and adjusts the carrying value of the loan or lease to fair value through the allowance for loan and lease losses. The loss represents charge-offs or impairments on collateral dependent loans and leases for fair value adjustments based on the fair value of collateral.

The other real estate owned amount above represents impaired real estate that has been adjusted to fair value. Other real estate owned represents real estate which the Bank has taken control of in partial or full satisfaction of loans. At the time of foreclosure, other real estate owned is recorded at the lower of the carrying amount of the loan or fair value less costs to sell, which becomes the property's new basis. Any write-downs based on the asset's fair value at the date of acquisition are charged to the allowance for loan and lease losses. After foreclosure, management periodically performs valuations such that the real estate is carried at the lower of its new cost basis or fair value, net of estimated costs to sell. Fair value adjustments on other real estate owned are recognized within net loss on real estate owned. The loss represents impairments on other real estate owned for fair value adjustments based on the fair value of the real estate.

Fair Value Option

The following table presents the difference between the aggregate fair value and the aggregate unpaid principal balance of loans held for sale accounted for under the fair value option as of December 31, 2019 and 2018:

(in thousands)	December 31, 2019			December 31, 2018		
	Fair Value	Aggregate Unpaid Principal Balance	Fair Value Less Aggregate Unpaid Principal Balance	Fair Value	Aggregate Unpaid Principal Balance	Fair Value Less Aggregate Unpaid Principal Balance
Loans held for sale	\$ 513,431	\$ 496,683	\$ 16,748	\$ 166,461	\$ 160,270	\$ 6,191

Residential mortgage loans held for sale accounted for under the fair value option are measured initially at fair value with subsequent changes in fair value recognized in earnings. Gains and losses from such changes in fair value are reported as a component of residential mortgage banking revenue, net in the *Consolidated Statements of Income*. For the years ended December 31, 2019, 2018 and 2017, the Company recorded a net increase in fair value of \$10.6 million, a net decrease of \$2.6 million, and a net increase of \$453,000, respectively, representing the change in fair value reflected in earnings.

The Company selected the fair value measurement option for the Umpqua Statutory Trusts and for junior subordinated debentures acquired from Sterling Financial Corporation. The remaining junior subordinated debentures were acquired through previous business combinations and were measured at fair value at the time of acquisition and subsequently measured at amortized cost.

Accounting for the selected junior subordinated debentures at fair value enables the Company to more closely align financial performance with the economic value of those liabilities. Additionally, it improves the ability to manage the market and interest rate risks associated with the junior subordinated debentures. The junior subordinated debentures measured at fair value and amortized cost are presented as separate line items on the balance sheet. The ending carrying (fair) value of the junior subordinated debentures measured at fair value represents the estimated amount that would be paid to transfer these liabilities in an orderly transaction amongst market participants under current market conditions as of the measurement date.

Due to inactivity in the junior subordinated debenture market and the lack of observable quotes of the Company's, or similar, junior subordinated debenture liabilities or the related trust preferred securities when traded as assets, the Company utilizes an income approach valuation technique to determine the fair value of these liabilities using estimation of market discount rate assumptions. The Company monitors activity in the trust preferred and related markets, to the extent available, evaluates changes related to the current and anticipated future interest rate environment, and considers entity-specific creditworthiness, to validate the reasonableness of the credit risk adjusted spread and effective yield utilized in the discounted cash flow model. The Company also considers changes in the interest rate environment in the valuation, specifically the absolute level and the shape of the slope of the forward swap curve.

Note 23 – Earnings Per Common Share

The following is a computation of basic and diluted earnings per common share for the years ended December 31, 2019, 2018 and 2017:

(in thousands, except per share data)	2019	2018	2017
Net income	\$ 354,095	\$ 316,263	\$ 242,313
Weighted average number of common shares outstanding - basic	220,339	220,280	220,251
Effect of potentially dilutive common shares ⁽¹⁾	311	457	585
Weighted average number of common shares outstanding - diluted	220,650	220,737	220,836
Earnings per common share:			
Basic	\$ 1.61	\$ 1.44	\$ 1.10
Diluted	\$ 1.60	\$ 1.43	\$ 1.10

⁽¹⁾ Represents the effect of the assumed vesting of non-participating restricted shares, exercise of stock options, and vesting of restricted stock units, based on the treasury stock method.

There were 244,000 weighted average outstanding restricted shares that were not included in the computation of diluted earnings per common share because their effect would be anti-dilutive for the year ended December 31, 2019.

Note 24 – Segment Information

The Company reports four primary segments: Wholesale Bank, Wealth Management, Retail Bank, and Home Lending with the remainder as Corporate and other.

The Wholesale Bank segment includes lending, treasury and cash management services and customer risk management products to middle market corporate, commercial and business banking customers and the operations of FinPac. The Wealth Management segment consists of the operations of Umpqua Investments, which offers a full range of retail brokerage and investment advisory services and products to its clients who consist primarily of individual investors, and Umpqua Private Bank, which serves high net worth individuals with liquid investable assets and provides customized financial solutions and offerings. The Retail Bank segment includes retail and small business lending and deposit services for customers served through the Bank's store network. The Home Lending segment originates, sells and services residential mortgage loans. The Corporate and other segment includes activities that are not directly attributable to one of the four principal lines of business and includes the operations of the parent company, eliminations and the economic impact of certain assets, capital and support functions not specifically identifiable within the other lines of business.

Management monitors the Company's results using an internal performance measurement accounting system, which provides line of business results and key performance measures. A primary objective of this profitability measurement system and related internal financial reporting practices are designed to produce consistent results that reflect the underlying economics of the business and to support strategic objectives and analysis based on how management views the business. Various methodologies employed within this system to measure performance are based on management's judgment or other subjective factors. Consequently, the information presented is not necessarily comparable with similar information for other financial institutions.

This system uses various techniques to assign balance sheet and income statement amounts to the business segments, including internal funds transfer pricing, allocations of income, expense, the provision for credit losses, and capital. The application and development of these management reporting methodologies is a dynamic process and is subject to periodic enhancements. As these enhancements are made, financial results presented by each reportable segment may be periodically revised retrospectively, if material.

Funds transfer pricing is used in the determination of net interest income reported by assigning a cost for funds used or credit for funds provided to all assets and liabilities within each business segment. In general, assets and liabilities are match-funded based on their maturity or repricing characteristics, adjusted for estimated prepayments if applicable. The value of funds provided or cost of funds used by the business segments is priced at rates that approximate wholesale market rates of the Company for funds with similar duration and re-pricing characteristics. Market rates are generally based on LIBOR or interest rate swap rates, plus consideration of the Company's incremental credit spread/cost of borrowing. As a result, the business segments are generally insulated from changes in interest rates. This method of funds transfer pricing also serves to transfer interest rate risk to Treasury, which is contained within the Corporate & Other segment. However, the business segments have some latitude to retain certain interest rate exposures related to customer pricing decisions that are within overall Corporate guidelines.

Non-interest income and expenses directly attributable to a business segment are directly recorded within that business unit. To better analyze the total financial performance of each business unit and to consider the total cost to support a segment, management allocates centrally provided support services and other corporate overhead to the business segments based on various methodologies. Examples of these type of expense overhead pools include information technology, operations, human resources, finance, risk management, credit administration, legal, and marketing. Expense allocations are based on actual usage where practicably calculated or by management's estimate of such usage. Example of typical expense allocation drivers include number of employees, loan or deposits average balances or counts, origination or transaction volumes, credit quality related indicators, non-interest expense, or other identified drivers.

The provision for loan and lease losses is based on the methodology consistent with the Bank's process to estimate the consolidated allowance. The provision for credit losses incorporates the actual net charge-offs recognized related to loans contained within each business segment. The residual provision for credit losses to arrive at the consolidated provision for credit losses is included in Corporate and Other.

The provision for income taxes is allocated to business segments using a 25% effective tax rate for 2019 and 2018 and 37% for 2017. The residual income tax expense or benefit arising from changes in tax rates, tax planning strategies or other tax attributes to arrive at the consolidated effective tax rate is retained in Corporate and Other.

Summarized financial information concerning the Company's reportable segments and the reconciliation to the consolidated financial results is shown in the following tables for the years ended December 31, 2019, 2018 and 2017:

(in thousands)	2019					
	Wholesale Bank	Wealth Management	Retail Bank	Home Lending	Corporate & Other	Consolidated
Net interest income	\$ 431,591	\$ 23,240	\$ 348,583	\$ 46,603	\$ 70,617	\$ 920,634
Provision for loan and lease losses	64,346	804	4,923	2,033	409	72,515
Non-interest income	65,257	18,658	63,574	102,239	90,096	339,824
Non-interest expense	224,804	36,976	264,345	135,168	57,747	719,040
Income before income taxes	207,698	4,118	142,889	11,641	102,557	468,903
Provision for income taxes	51,924	1,030	35,722	2,910	23,222	114,808
Net income	<u>\$ 155,774</u>	<u>\$ 3,088</u>	<u>\$ 107,167</u>	<u>\$ 8,731</u>	<u>\$ 79,335</u>	<u>\$ 354,095</u>
Total assets	\$ 14,864,484	\$ 710,873	\$ 2,293,362	\$ 4,423,869	\$ 6,554,221	\$ 28,846,809
Total loans and leases	\$ 14,581,339	\$ 693,569	\$ 2,209,990	\$ 3,768,584	\$ (57,798)	\$ 21,195,684
Total deposits	\$ 4,293,384	\$ 1,221,869	\$ 13,717,335	\$ 279,226	\$ 2,969,690	\$ 22,481,504

2018

(in thousands)	Wholesale Bank	Wealth Management	Retail Bank	Home Lending	Corporate & Other	Consolidated
Net interest income	\$ 451,513	\$ 24,346	\$ 339,180	\$ 39,897	\$ 83,703	\$ 938,639
Provision (recapture) for loan and lease losses	50,248	1,025	3,205	1,628	(201)	55,905
Non-interest income	59,118	19,434	63,407	119,538	17,920	279,417
Non-interest expense	224,260	36,165	274,306	130,404	74,330	739,465
Income before income taxes	236,123	6,590	125,076	27,403	27,494	422,686
Provision for income taxes	59,031	1,648	31,269	6,851	7,624	106,423
Net income	<u>\$ 177,092</u>	<u>\$ 4,942</u>	<u>\$ 93,807</u>	<u>\$ 20,552</u>	<u>\$ 19,870</u>	<u>\$ 316,263</u>
Total assets	\$ 14,920,507	\$ 536,024	\$ 2,015,263	\$ 3,680,004	\$ 5,787,983	\$ 26,939,781
Total loans and leases	\$ 14,717,512	\$ 521,988	\$ 1,934,602	\$ 3,320,634	\$ (72,070)	\$ 20,422,666
Total deposits	\$ 3,776,047	\$ 1,068,025	\$ 13,016,976	\$ 219,584	\$ 3,056,854	\$ 21,137,486

2017

(in thousands)	Wholesale Bank	Wealth Management	Retail Bank	Home Lending	Corporate & Other	Consolidated
Net interest income	\$ 434,942	\$ 22,103	\$ 282,622	\$ 39,487	\$ 86,531	\$ 865,685
Provision for loan and lease losses	37,108	360	7,701	1,692	393	47,254
Non-interest income	52,054	18,697	62,366	142,763	2,607	278,487
Non-interest expense	218,266	32,123	288,236	146,690	62,560	747,875
Income before income taxes	231,622	8,317	49,051	33,868	26,185	349,043
Provision (benefit) for income taxes	85,700	3,077	18,149	12,531	(12,727)	106,730
Net income	<u>\$ 145,922</u>	<u>\$ 5,240</u>	<u>\$ 30,902</u>	<u>\$ 21,337</u>	<u>\$ 38,912</u>	<u>\$ 242,313</u>
Total assets	\$ 13,856,963	\$ 437,873	\$ 2,143,830	\$ 3,355,189	\$ 5,886,592	\$ 25,680,447
Total loans and leases	\$ 13,683,264	\$ 423,813	\$ 2,054,058	\$ 2,921,897	\$ (63,840)	\$ 19,019,192
Total deposits	\$ 3,776,080	\$ 993,559	\$ 12,449,568	\$ 222,494	\$ 2,506,599	\$ 19,948,300

Note 25 – Related Party Transactions

In the ordinary course of business, the Bank has made loans to its directors and executive officers (and their associated and affiliated companies). All such loans have been made in accordance with regulatory requirements.

The following table presents a summary of aggregate activity involving related party borrowers for the years ended December 31, 2019, 2018 and 2017:

(in thousands)	2019	2018	2017
Loans outstanding at beginning of year	\$ 9,079	\$ 8,983	\$ 9,836
New loans and advances	4,943	2,951	3,982
Less loan repayments	(3,482)	(2,854)	(3,516)
Reclassification ⁽¹⁾	—	(1)	(1,319)
Loans outstanding at end of year	<u>\$ 10,540</u>	<u>\$ 9,079</u>	<u>\$ 8,983</u>

⁽¹⁾ Represents loans that were once considered related party but are no longer considered related party, or loans that were not related party that subsequently became related party loans.

At December 31, 2019 and 2018, deposits of related parties amounted to \$27.2 million and \$18.9 million, respectively.

Note 26 – Parent Company Financial Statements

Summary financial information for Umpqua Holdings Corporation is as follows:

Condensed Balance Sheets

December 31, 2019 and 2018

(in thousands)	December 31, 2019	December 31, 2018
ASSETS		
Non-interest bearing deposits with subsidiary bank	\$ 130,368	\$ 116,245
Investments in:		
Bank subsidiary	4,590,888	4,360,983
Non-bank subsidiaries	29,126	28,330
Other assets	518	8,478
Total assets	<u>\$ 4,750,900</u>	<u>\$ 4,514,036</u>
LIABILITIES AND SHAREHOLDERS' EQUITY		
Payable to bank subsidiary	\$ 91	\$ 278
Other liabilities	73,586	67,722
Junior subordinated debentures, at fair value	274,812	300,870
Junior subordinated debentures, at amortized cost	88,496	88,724
Total liabilities	<u>436,985</u>	<u>457,594</u>
Shareholders' equity	4,313,915	4,056,442
Total liabilities and shareholders' equity	<u>\$ 4,750,900</u>	<u>\$ 4,514,036</u>

Condensed Statements of Income

Years Ended December 31, 2019, 2018 and 2017

(in thousands)	2019	2018	2017
INCOME			
Dividends from subsidiaries	\$ 219,143	\$ 212,457	\$ 177,798
Other (loss) income	(18)	1,154	(14,678)
Total income	219,125	213,611	163,120
EXPENSES			
Management fees paid to subsidiaries	1,144	1,014	1,003
Other expenses	25,311	23,725	20,325
Total expenses	26,455	24,739	21,328
Income before income tax benefit and equity in undistributed earnings of subsidiaries	192,670	188,872	141,792
Income tax benefit	(5,742)	(5,052)	(25,679)
Net income before equity in undistributed earnings of subsidiaries	198,412	193,924	167,471
Equity in undistributed earnings of subsidiaries	155,683	122,339	74,842
Net income	\$ 354,095	\$ 316,263	\$ 242,313

Condensed Statements of Cash Flows

Years Ended December 31, 2019, 2018 and 2017

(in thousands)	2019	2018	2017
OPERATING ACTIVITIES:			
Net income	\$ 354,095	\$ 316,263	\$ 242,313
Adjustment to reconcile net income to net cash provided by operating activities:			
Gain on Pivotus divestiture	—	(5,778)	—
Equity in undistributed earnings of subsidiaries	(155,683)	(122,339)	(74,842)
Depreciation, amortization and accretion	(228)	(244)	(322)
Change in junior subordinated debentures carried at fair value	—	—	14,946
Net decrease (increase) in other assets	7,960	(1,696)	3,532
Net increase (decrease) in other liabilities	79	1,581	(2,006)
Net cash provided by operating activities	206,223	187,787	183,621
INVESTING ACTIVITIES:			
Change in advances to subsidiaries	69	(211)	1,690
Net cash provided by (used in) investing activities	69	(211)	1,690
FINANCING ACTIVITIES:			
Net increase in advances from subsidiaries	179	163	115
Dividends paid on common stock	(185,101)	(173,914)	(145,398)
Repurchases and retirement of common stock	(7,268)	(12,962)	(8,614)
Repayment of junior subordinated debentures at amortized cost	—	(10,598)	—
Proceeds from stock options exercised	21	1,065	961
Net cash used in financing activities	(192,169)	(196,246)	(152,936)
Net increase (decrease) in cash and cash equivalents	14,123	(8,670)	32,375
Cash and cash equivalents, beginning of year	116,245	124,915	92,540
Cash and cash equivalents, end of year	\$ 130,368	\$ 116,245	\$ 124,915

Note 27 – Quarterly Financial Information (Unaudited)

The following tables present the summary results for the four quarters ended December 31, 2019 and 2018:

(in thousands, except per share information)	2019				
	December 31	September 30	June 30	March 31	Four Quarters
Interest income	\$ 282,030	\$ 285,187	\$ 281,600	\$ 282,259	\$ 1,131,076
Interest expense	55,216	56,214	54,438	44,574	210,442
Net interest income	226,814	228,973	227,162	237,685	920,634
Provision for loan and lease losses	16,252	23,227	19,352	13,684	72,515
Non-interest income	83,749	88,512	121,823	45,740	339,824
Non-interest expense	183,443	183,590	180,415	171,592	719,040
Income before provision for income taxes	110,868	110,668	149,218	98,149	468,903
Provision for income taxes	27,118	26,166	37,408	24,116	114,808
Net income	\$ 83,750	\$ 84,502	\$ 111,810	\$ 74,033	\$ 354,095
Basic earnings per common share	\$ 0.38	\$ 0.38	\$ 0.51	\$ 0.34	
Diluted earnings per common share	\$ 0.38	\$ 0.38	\$ 0.51	\$ 0.34	
Cash dividends declared per common share	\$ 0.21	\$ 0.21	\$ 0.21	\$ 0.21	

(in thousands, except per share information)	2018				
	December 31	September 30	June 30	March 31	Four Quarters
Interest income	\$ 286,768	\$ 276,242	\$ 255,192	\$ 248,947	\$ 1,067,149
Interest expense	39,378	34,874	30,292	23,966	128,510
Net interest income	247,390	241,368	224,900	224,981	938,639
Provision for loan and lease losses	17,219	11,711	13,319	13,656	55,905
Non-interest income	56,811	72,388	71,651	78,567	279,417
Non-interest expense	178,488	179,292	195,572	186,113	739,465
Income before provision for income taxes	108,494	122,753	87,660	103,779	422,686
Provision for income taxes	28,183	31,772	21,661	24,807	106,423
Net income	\$ 80,311	\$ 90,981	\$ 65,999	\$ 78,972	\$ 316,263
Basic earnings per common share	\$ 0.36	\$ 0.41	\$ 0.30	\$ 0.36	
Diluted earnings per common share	\$ 0.36	\$ 0.41	\$ 0.30	\$ 0.36	
Cash dividends declared per common share	\$ 0.21	\$ 0.21	\$ 0.20	\$ 0.20	

Note 28 – Revenue from Contracts with Customers

All of the Company's revenue from contracts with customers in the scope of ASC 606 is recognized in non-interest income with the exception of the (gain) loss on other real estate owned, which is included in non-interest expense. The following table presents the Company's sources of non-interest income for the years ended December 31, 2019 and 2018. Items outside of the scope of ASC 606 are noted as such.

(in thousands)	2019	2018
Non-interest income:		
Service charges on deposits		
Account maintenance fees	\$ 20,672	\$ 17,378
Transaction-based and overdraft service charges	24,944	25,636
Debit/ATM interchange fees	18,898	19,110
Total service charges on deposits	64,514	62,124
Brokerage revenue	15,877	16,480
Residential mortgage banking revenue, net (a)	101,810	118,235
(Loss) gain on sale of debt securities, net (a)	(7,184)	14
Gain (loss) on equity securities, net (a)	83,475	(1,484)
Gain on loan and leases sales, net (a)	10,467	7,834
BOLI income (a)	8,406	8,297
Other income		
Merchant fee income	5,207	4,565
Credit card and interchange income and expenses	8,946	7,392
Remaining other income (a)	48,306	55,960
Total other income	62,459	67,917
Total non-interest income	<u>\$ 339,824</u>	<u>\$ 279,417</u>

(a) Not within scope of ASC 606

Service charges on deposits

The Company earns fees from its deposit customers for account maintenance, transaction-based and overdraft services. Account maintenance fees consist primarily of account fees and analyzed account fees charged on deposit accounts on a monthly basis. The performance obligation is satisfied and the fees are recognized on a monthly basis as the service period is completed. Transaction-based fees on deposit accounts are charged to deposit customers for specific services provided to the customer, such as non-sufficient funds fees, overdraft fees, and wire fees. The performance obligation is completed as the transaction occurs and the fees are recognized at the time each specific service is provided to the customer.

Debit and ATM interchange income represents fees earned when a debit card issued by the Bank is used. The Bank earns interchange fees from debit cardholder transactions through the Visa payment network. Interchange fees from cardholder transactions represent a percentage of the underlying transaction value and are recognized daily, concurrently with the transaction processing services provided to the cardholder. The performance obligation is satisfied and the fees are earned when the cost of the transaction is charged to the cardholders' debit card. Certain expenses directly associated with the credit and debit card are recorded on a net basis with the interchange income.

Brokerage revenue

As of December 31, 2019 and 2018, the Company had revenues of \$15.9 million and \$16.5 million, respectively, for the performance of brokerage and advisory services for its clients through Umpqua Investments. Brokerage fees consist of fees earned from advisory asset management, trade execution and administrative fees from investments. Advisory asset management fees are variable, since they are based on the underlying portfolio value, which is subject to market conditions and asset flows. Advisory asset management fees are recognized quarterly and are based on the portfolio values at the end of each quarter. Brokerage accounts are charged commissions at the time of a transaction and the commission schedule is based upon the type of security and quantity. In addition, revenues are earned from selling insurance and annuity policies. The amount of revenue earned is determined by the value and type of each instrument sold and is recognized at the time the policy or contract is written.

Merchant fee income

Merchant fee income represents fees earned by the Bank for card payment services provided to its merchant customers. The Bank outsources these services to a third party to provide card payment services to these merchants. The third party provider passes the payments made by the merchants through to the Bank. The Bank, in turn, pays the third party provider for the services it provides to the merchants. These payments to the third party provider are recorded as expenses as a net reduction against fee income. In addition, a portion of the payment received represents interchange fees which are passed through to the card issuing bank. Income is primarily earned based on the dollar volume and number of transactions processed. The performance obligation is satisfied and the related fee is earned when each payment is accepted by the processing network. For the years ended December 31, 2019 and 2018, the Company had merchant processing fee revenue of \$5.2 million and \$4.6 million included in other income, respectively.

Credit card and interchange income and expenses

Credit card interchange income represent fees earned when a credit card issued by the Bank is used. Similar to the debit card interchange, the Bank earns an interchange fee for each transaction made with the Bank's branded credit cards. The performance obligation is satisfied and the fees are earned when the cost of the transaction is charged to the cardholders' credit card. Certain expenses and rebates directly related to the credit card interchange contract are recorded net to the interchange income. For the years ended December 31, 2019 and 2018, credit card and interchange income included in other income was \$8.9 million and \$7.4 million, respectively.

Gain/loss on other real estate owned, net

The Company records a gain or loss from the sale of other real estate owned when control of the property transfers to the buyer, which generally occurs at the time of an executed deed of trust. When the Bank finances the sale of other real estate owned to the buyer, the Company assesses whether the buyer is committed to perform their obligations under the contract and whether collectability of the transaction price is probable. Once these criteria are met, the other real estate owned asset is derecognized and the gain or loss on sale is recorded upon the transfer of control of the property to the buyer. In determining the gain or loss on sale, the Company adjusts the transaction price and related gain or loss on sale if a significant financing component is present.

Note 29 – Subsequent Events

In January 2020, the Company signed an indication of interest to sell the mortgage servicing rights to approximately \$3.0 billion of mortgage loans serviced for others. The transaction is expected to close in the second quarter of 2020, pending the negotiation and finalization of the agreement, as well as customary approvals and closing conditions.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES.

On a quarterly basis, the Company carries out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer, Principal Financial Officer, and Principal Accounting Officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13a-15(b) under the Securities Exchange Act of 1934. As of December 31, 2019, our management, including our Chief Executive Officer, Principal Financial Officer, and Principal Accounting Officer, concluded that our disclosure controls and procedures were effective in timely alerting them to material information relating to us that is required to be included in our periodic SEC filings.

Although management changes and improves our internal controls over financial reporting on an ongoing basis, we do not believe that any such changes occurred in the fourth quarter 2019 that materially affected or are reasonably likely to materially affect our internal control over financial reporting.

REPORT OF MANAGEMENT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Umpqua Holdings Corporation is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. The Company's internal control system is designed to provide reasonable assurance to our management and Board of Directors regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. The Company's internal control over financial reporting includes those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the Company's assets;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with the authorizations of management and directors of the Company; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control - Integrated Framework (2013). This assessment included controls over the preparation of the schedules equivalent to the basic financial statements in accordance with the instructions for the Consolidated Financial Statements for Bank Holding Companies (Form FR Y-9C) to meet the reporting requirements of Section 112 of the Federal Deposit Insurance Corporation Improvement Act. Based on our assessment and those criteria, management believes that, as of December 31, 2019, the Company maintained effective internal control over financial reporting.

The Company's independent registered public accounting firm has audited the Company's consolidated financial statements that are included in this annual report and the effectiveness of our internal control over financial reporting as of December 31, 2019 and issued their Report of Independent Registered Public Accounting Firm, appearing under Item 8. The audit report expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2019.

February 27, 2020

ITEM 9B. OTHER INFORMATION.

Not Applicable

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The response to this item is incorporated by reference to Umpqua's Proxy Statement for the 2020 annual meeting of shareholders under the captions "Item 1. Election of Directors," "Information About Executive Officers," "Corporate Governance Overview" and "Delinquent Section 16(a) Reports."

ITEM 11. EXECUTIVE COMPENSATION

The response to this item is incorporated by reference to the Proxy Statement, under the captions "Director Compensation," "Compensation Discussion and Analysis," "Compensation Committee Report," and "Compensation Tables."

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required under Regulation S-K Item 201(d) is set forth in Part II, Item 5, "Equity Compensation Plan Information" of this Annual Report on Form 10-K, the other required disclosures are incorporated by reference to the Proxy Statement under the caption "Security Ownership of Management and Others."

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The response to this item is incorporated by reference to the Proxy Statement, under the captions "Item 1. Election of Directors" and "Related Party Transactions."

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

The response to this item is incorporated by reference to the Proxy Statement, Item 2-Ratification of Selection of Registered Public Accounting Firm.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

- (1) Financial Statements:

The consolidated financial statements are included as Item 8 of this Form 10-K.

- (2) Financial Statement Schedules:

All schedules have been omitted because the information is not required, not applicable, not present in amounts sufficient to require submission of the schedule, or is included in the financial statements or notes thereto.

- (3) The exhibits filed as part of this report and incorporated herein by reference to other documents are listed on the Exhibit Index to this annual report on Form 10-K, immediately before the signatures.

ITEM 16. FORM 10-K SUMMARY.

None.

EXHIBIT INDEX

Exhibit #	Description	Location
3.1	<u>Restated Articles of Incorporation, as amended</u>	Incorporated by reference to Exhibit 3.1 to Form 10-Q filed May 7, 2014
3.2	<u>Bylaws, as amended</u>	Incorporated by reference to Exhibit 3.2 to Form 8-K filed April 21, 2017
4.1	<u>Specimen Common Stock Certificate</u>	Incorporated by reference to Exhibit 4 to the Registration Statement on Form S-8 (No. 333-77259) filed with the SEC on April 28, 1999
4.2	The Company agrees to furnish upon request to the Commission a copy of each instrument defining the rights of holders of senior and subordinated debt of the Company.	
4.3	<u>Description of Registrant's Securities</u>	Filed herewith
10.1**	<u>Employment Agreement dated effective March 24, 2010 between the Company and Cort O'Haver</u>	Incorporated by reference to Exhibit 10.1 to Form 10-Q filed November 4, 2010
10.1.a**	<u>First Amendment to Employment Agreement with Cort O'Haver dated effective December 1, 2014</u>	Incorporated by reference to Exhibit 10.9 to Form 10-K filed February 23, 2015.
10.1.b**	<u>Second Amendment to Employment Agreement with Cort O'Haver dated effective January 1, 2017</u>	Incorporated by reference to Exhibit 10.7.B to Form 10-K filed February 23, 2017
10.2**	<u>Employment Agreement with Ron Farnsworth</u>	Incorporated by reference to Exhibit 99.1 to Form 8-K filed March 7, 2008
10.2.a**	<u>First Amendment to Employment Agreement with Ron Farnsworth</u>	Incorporated by reference to Exhibit 99.1 to Form 8-K filed January 14, 2013
10.2.b**	<u>Second Amendment to Employment Agreement with Ron Farnsworth dated effective January 1, 2019</u>	Incorporated by reference to Exhibit 10.3.b to Form 10-K filed February 21, 2019
10.3**	<u>Employment Agreement dated effective November 23, 2015 between Umpqua Bank and Tory Nixon</u>	Incorporated by reference to Exhibit 10.8 to Form 10-K filed February 23, 2017
10.3.a**	<u>First Amendment to Employment Agreement with Tory Nixon dated effective December 31, 2017</u>	Incorporated by reference to Exhibit 10.7.a to Form 10-K filed February 23, 2018
10.3.b**	<u>Second Amendment to Employment Agreement with Tory Nixon dated effective January 1, 2019</u>	Incorporated by reference to Exhibit 10.4.b to Form 10-K filed February 21, 2019
10.4**	<u>Employment Agreement (and first and second amendments thereto) dated effective July 1, 2015 between the Company and David Shotwell</u>	Incorporated by reference to Exhibit 99.1 to Form 8-K filed July 1, 2015
10.4.a**	<u>Third Amendment to Employment Agreement with David Shotwell</u>	Incorporated by reference to Exhibit 10.5.a to Form 10-K filed February 21, 2019
10.5**	<u>Umpqua Holdings Corporation 2013 Incentive Plan, effective December 14, 2012, as amended</u>	Incorporated by reference to Exhibit 10.10 to Form 10-K filed February 23, 2017
10.6**	<u>Form of Restricted Stock Award Agreement under 2013 Incentive Plan</u>	Filed herewith
10.6.a**	<u>Form of Notice of Restricted Stock Award</u>	Filed herewith
10.7**	<u>Form of Notice of Performance Share Award Agreement under 2013 Incentive Plan (TSR performance))</u>	Filed herewith
10.8**	<u>Form of Notice of Performance Share Award under 2013 Incentive Plan (ROATCE performance)</u>	Filed herewith

Exhibit #	Description	Location
10.9**	<u>Sterling Financial Corporation 2010 Long-Term Incentive Plan</u>	Incorporated by reference to Exhibit 99.1 to the Registration Statement on Form S-8 of Sterling Financial Corporation filed December 9, 2010
10.10**	<u>Employment Agreement between the Company and Andrew Ognall dated as of May 1, 2014</u>	Incorporated by reference to Exhibit 10.16 to Form 10-K filed February 25, 2016
10.10.a**	<u>First Amendment to Employment Agreement with Andrew Ognall dated effective January 1, 2019</u>	Incorporated by reference to Exhibit 10.11.a to Form 10-K filed February 21, 2019
10.11**	<u>Employment Agreement between the Company and Neal McLaughlin dated as of March 1, 2005</u>	Incorporated by reference to Exhibit 10.12 to Form 10-K filed February 23, 2017
10.11.a**	<u>First Amendment to Employment Agreement with Neal McLaughlin</u>	Incorporated by reference to Exhibit 99.1 to Form 8-K filed January 14, 2013
10.11.b**	<u>Second Amendment to Employment Agreement with Neal McLaughlin dated effective January 1, 2019</u>	Incorporated by reference to Exhibit 10.12.b to Form 10-K filed February 21, 2019
10.12**	<u>Employment Agreement between the Company and Rilla Delorier dated as of April 10, 2017</u>	Incorporated by reference to Exhibit 10.1 to Form 10-Q filed August 4, 2017
10.13**	<u>Employment Agreement between the Company and Frank Namdar dated as of May 8, 2017</u>	Incorporated by reference to Exhibit 10.14 to Form 10-K filed February 21, 2019
10.14**	<u>Form of Amendment to Employment Agreements with Ron Farnsworth, Neal McLaughlin, Andrew Ognall and David Shotwell</u>	Incorporated by reference to Exhibit 10.1 to Form 10-Q filed August 6, 2019
10.15**	<u>Form of Director Restricted Stock Award</u>	Filed herewith
21.1	<u>Subsidiaries of the Registrant</u>	Filed herewith
23.1	<u>Consent of Independent Registered Public Accounting Firm - Deloitte & Touche LLP</u>	Filed herewith
23.2	<u>Consent of Independent Registered Public Accounting Firm - MOSS ADAMS LLP</u>	Filed herewith
31.1	<u>Certification of Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002</u>	Filed herewith
31.2	<u>Certification of Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002</u>	Filed herewith
31.3	<u>Certification of Principal Accounting Officer under Section 302 of the Sarbanes-Oxley Act of 2002</u>	Filed herewith
32	<u>Certification of Chief Executive Officer, Principal Financial Officer and Principal Accounting Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>	Filed herewith
101.INS	Inline XBRL Instance Document - The instance document does not appear in the interactive file because its XBRL tags are embedded within the Inline XBRL document	Filed herewith
101.SCH	Inline XBRL Taxonomy Extension Schema Document	Filed herewith
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	Filed herewith
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	Filed herewith
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	Filed herewith

Exhibit #	Description	Location
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	Filed herewith
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)	Filed herewith

**Indicates compensatory plan or arrangement

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, Umpqua Holdings Corporation has duly caused this Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized on February 27, 2020.

UMPQUA HOLDINGS CORPORATION (Registrant)

/s/ Cort L. O'Haver February 27, 2020
Cort L. O'Haver, President and Chief Executive Officer

Signature	Title	Date
<u>/s/ Cort L. O'Haver</u> Cort L. O'Haver	President, Chief Executive Officer and Director (Principal Executive Officer)	February 27, 2020
<u>/s/ Ronald L. Farnsworth</u> Ronald L. Farnsworth	Executive Vice President, Chief Financial Officer (Principal Financial Officer)	February 27, 2020
<u>/s/ Lisa M. White</u> Lisa M. White	Senior Vice President, Corporate Controller (Principal Accounting Officer)	February 27, 2020
<u>/s/ Peggy Y. Fowler</u> Peggy Y. Fowler	Chair	February 27, 2020
<u>/s/ Stephen M. Gambia</u> Stephen M. Gambia	Director	February 27, 2020
<u>/s/ James S. Greene</u> James S. Greene	Director	February 27, 2020
<u>/s/ Luis F. Machuca</u> Luis F. Machuca	Director	February 27, 2020
<u>/s/ Maria M. Pope</u> Maria M. Pope	Director	February 27, 2020
<u>/s/ John F. Schultz</u> John F. Schultz	Director	February 27, 2020
<u>/s/ Susan F. Stevens</u> Susan F. Stevens	Director	February 27, 2020
<u>/s/ Hilliard C. Terry, III</u> Hilliard C. Terry, III	Director	February 27, 2020

/s/ Bryan L. Timm Vice Chair
Bryan L. Timm

February 27, 2020

/s/ Anddria Varnado Director
Anddria Varnado

February 27, 2020



Umpqua Holdings Corporation



UMPQUA BANK



UMPQUA Investments

Stock Trading Market

Umpqua Holdings Corporation common stock trades on the NASDAQ Global Select Market under the symbol UMPQ.

Transfer Agent

Computershare
P.O. Box 505000, Louisville, KY 40233
(800) 922-2641 [Computershare.com/Investor](https://www.computershare.com/Investor)

Headquarters and Investor Information

Umpqua Holdings Corporation
One SW Columbia Street, Suite 1200, Portland, OR 97258
(503) 727-4100 [Umpquabank.com/Investor-Relations](https://umpquabank.com/Investor-Relations)

Annual Shareholders' Meeting

The annual meeting will be held at 3:00 pm, local time, on April 20, 2020 at The Porter Portland Hotel, Founders Ballroom 1355 SW 2nd Avenue, Portland, OR 97201